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Traditional vegetables in Benin

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Foreword

It is timely that a catalogue of the traditional vegetables of Benin is produced since it has become evident that the knowledge associated with these resources is rapidly being lost. This can be attributed to two main factors: firstly, as a consequence of the loss of these diverse genetic resources in wild and semi-domestic situations; secondly, because of social change and the loss of traditional and customary use of plants as well as changes in culinary tastes and habits. Consequently, it has become imperative to document this knowledge as well as begin the collection and conservation of the traditional vegetable species known to have significant cultural and nutritive value. Regional and national level projects and programmes have begun to emerge to raise awareness about the value of traditional vegetables, and to highlight not only the reliance of populations on the diversity of species consumed throughout African countries, but also the potential these plants have to contribute to livelihood and nutritional security elsewhere, if appropriate strategies to protect their status are put into place.

The particular importance of African indigenous vegetables as a rich source of proteins, vitamins and minerals has been recognised by a number of recent publications. The Plant Resources of Tropical Africa (PROTA) project's second volume is devoted to vegetables (Grubben and Denton 2004) and lists over 110 important indigenous and traditional vegetable species widely known and used through Africa. Schippers (2004) described 134 species covering 14 different plant families over the continent, although his list is confined to cultivated species because of the paucity of information concerning the occurrence, use and availability of wild vegetable species.

It is important to develop a guide which focuses on the traditional vegetables of Benin, for a number of different reasons. Guides and checklists which are country specific provide the specific detail needed to understand the nature of the national resource. Benin has often been the 'poor cousin' of ethnobotanical and botanical surveys as botanists consider the area of the Dahomey Gap to contain a less diverse flora than in neighbouring countries. The consequence of this has been a scarce literature on the traditional uses of plant diversity in the country, with very little documentation concerning the use of traditional vegetables. Contrary to expectation, this catalogue demonstrates the very wide array of species including wild, semi-domesticated and domesticated species that communities use. It also shows the significant variation in knowledge and utilization according to the socio-linguistic and ecological regions of Benin. Finally, this publication fills a significant gap, by describing not only the use of this biodiversity, but, importantly, details of the ecological occurrence and requirements of the traditional vegetable species.

This document has been published using financial support from the United Kingdom's Darwin Initative through the project "Conservation of the biodiversity of traditional vegetables in West Africa (15/003)", and the International Foundation for Science (IFS) project "Conservation of the genetic resources of local cucurbit crops for poverty reduction in Benin (T/3709-1)". Significant administrative and technical support was provided by the National Institute of Agricultural Research in Benin (INRAB) which hosted the project and the Laboratory of Plant Sciences (LVB) of the Faculty of Agronomic Sciences at the University of Abomey-Calavi.

The catalogue is divided in two parts. Part one presents the methodology used to gather the botanical, ethnobotanical and socio-economic data of indigenous vegetable resources. This leads onto a synthesis of a state-of-the-art overview of the status of traditional

vegetables in Benin, including: a discussion of the species richness in the main phyto-geographical regions of Benin; the nutritional, medicinal and cultural utilisation of different species by the 19 socio-linguistic groups living in these regions; a summary of production and commercialisation data; and finally an elaboration of the threats to the resource and existing conservation approaches. The second part of the publication describes local nomenclature, species distribution and agro-ecology, the extent and character of any existing production systems, and the reported utilisation of the most important species. An easily accessed alphabetical list of all the local names used to refer to vegetable species is also presented.

None of this would have been possible without the efforts of an enthusiastic, committed and collaborative group of people. The authors would like to acknowledge the important contributions of:

- The village communities and individuals in city quarters whose knowledge is documented here and whose time was generously given during the research exercises. We thank every individual in each of the villages that hosted us, and most particularly the chiefs of Ayétedjou, Bognongon, and Ganro for their personal involvement in the establishment and implementation of the domestication trials and other research support.

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We hope this book will be of interest to a wide audience of botanists, ethnobotanists, nutrionalists, rural development specialists, natural resource managers, foresters and geographers from academic institutions, community organisations, non-governmental organisations, and public services. This broad audience should find information of interest that is both practical and instructive.

The experience of collecting the information for this catalogue has been wonderful. Not only were the village communities inspirational in their use of plants, but it has also shown us the diversity of Benin's plant genetic resources, and the importance of traditional vegetables amongst these. We hope that we can pass on our passion for Benin's traditional vegetables to new readers so as to ensure their place in the future of the country.

Part I

Chapter 1 – Inventory and use of traditional vegetables: methodological framework

EG Achigan Dako, MW Pasquini & F Assogba Komlan

This chapter explains how the term "traditional vegetable" is used in this document. It provides the geographical context to the study and describes the methodology employed to inventory the traditional vegetables used across various socio-linguistic groups in Benin, the patterns and modes of use in rural and urban areas, and the threats to the biodiversity. It concludes by discussing some of the limitations of the study.

1.1. Defining the term "traditional vegetable"

The term vegetable has no clear scientific meaning and is widely used to refer to all plant parts used as accompaniments of main dishes. Grubben and Denton (2004) defined vegetables as 'succulent plant parts consumed as side dish with a starchy staple food' (p. 13). However, they recognized the limitations of such a definition which could overlap with other commodity groups. In this book the use of the term vegetable is limited to '***plant parts (underground or shoot parts including stem, leaves, fruit, flowers) usually eaten fresh or processed in any way (cooked, steamed, dried, marinated, etc) and are not used as conventional fruit, nut, root/tuber crop, pulse or staple but as an accompaniment of the main dish or alone as snack mainly for their micronutrient benefits***' in the sense of Maundu *et al*. (2009). This can be simplified to 'any plant part that is consumed usually fresh or after minimal processing to facilitate consumption of the main dish and also for its micronutrients'. Therefore the term vegetable is not a botanical description, but refers to the primary use of a plant resource by a community. However, it should be remembered that many species are multipurpose resources and their primary use can vary from one locality to another. For example, *Senna obtusifolia* is widely used as a leafy vegetable in the Sudanian regions of West Africa, but in some locations it may only be known for its medicinal properties. Certain crops may behave more as vegetables in certain situations (e.g. pulses) and as non-vegetables in others. By and large vegetables are consumed for their freshness and as a recognised source of many micronutrients especially vitamins A and C, some minerals (Maundu *et al*., 1999) and also macronutrients (carbohydrate, proteins, fat). It is important to note that the term vegetable is not restricted to cultivated species; it also includes species collected in the wild and which might be herbs, shrubs or trees.

In this publication we use the term "traditional" in the sense of Maundu *et al*. (1999), to refer to a resource which has been in use for a sufficient period of time to be part of the local food habits, knowledge systems and customs of communities. This includes species which are indigenous (or native) to the area, but also includes varieties of exotic (or introduced) species which local communities have developed through many years of selection to produce strains and varieties uniquely adapted to local agro-ecologies. In this sense, exotic species such as cassava (*Manihot esculenta*), sweet potato (*Ipomoea batatas*)

and cocoyam or taro (e.g. *Colocasia esculenta*) which originate from Latin America, can also be considered traditional vegetables in Benin[1].

Within this text, therefore, traditional vegetable refers to all plant species (both indigenous and exotic) used by communities as a nutritional accompaniment to staples and for which related knowledge has been shared over the course of several generations and integrated as part of customs or cultural habits. Species which would fall within this definition include for instance *Sterculia tragacantha, Bidens pilosa, Vitex doniana, Solanum macrocarpon* and *Bombax costatum*. Other species that might be widely used across Benin, but which are newer introductions or are without this history of community adaptation such as *Allium cepa, Capsicum annuum, Lycopersicon esculentum, Brassica oleracea,* and *Daucus carota*, and which are nevertheless widely used in the country, are considered as as non-traditional.

1.2 An introduction to Benin

The Republic of Benin is located in West Africa, between latitudes 6º and 12º50N and longitudes 1º and 3º40'E. The country is bordered by Nigeria to the east, Togo to the west, and Burkina-Faso and Niger to the north and by the Atlantic Ocean to the south along a 125 km coastline. The total area of Benin is 112,622 km². The population is estimated at 6.7 million, with an annual growth rate of 2.8 to 3.2 percent (INSAE 2002). Up to 61% of the population live in rural areas. The country has about 42 socio-linguistic groups, the biggest comprising the Fon, Nagot-Yoruba and Bariba. Other important socio-linguistic groups include the Adja, Goun, Dendi, Waama, Idatcha, Berba and Lopka. The per capita GDP (2007) is $749 and the economy is mainly based on agriculture which accounts for 40% of GDP and 70% of domestic exports and 75% of all employment (Bierschenk *et al*. 2003). Cash crop production is limited to cotton, cashew nut, pineapple and groundnut. The main staple crops produced are maize (*Zea mays*), yams (*Dioscorea* spp), cassava (*Manihot esculenta*), cowpeas (*Vigna unguiculata*), sorghum (*Sorghum* spp) and rice (*Oryza sativa*) (Igue *et al*. 2000; Vissoh *et al*. 2004). Most of the soils are tropical ferruginous soils which are limited in depth by gravel and lateritic formations and which suffer from crusting and compaction (Saidou *et al*. 2003, 2004). With few exceptions, the soils have a low fertility, so increasing crop production necessitates increasing farm sizes which in turn drives land clearance (Gaoue 2008).

The vegetation pattern in Benin shows a gradient from the coast to the north, which arises from a combination of the climate and the soils. The country is divided into three major phyto-geographical regions (White 1983, Akoègninou *et al*. 2006): the Guinean zone, the Sudano-Guinean zone and the Sudanian zone.

The **Guinean** regional centre of endemism is mainly a semi-deciduous rainforest zone with ferralitic soils extending from the Atlantic coast and stretching between 1°45' and 2°24'E and 6°15' and 7°00'N to the west and 6°15' and 7°30'N to the east. The mean annual rainfall varies from 1,100 to 1,300 mm; the mean annual temperature is 26ºC (with a range of plus or minus 2.5-5ºC). Species which are characteristic of this region include *Cola gigantea, Cola millenii, Sterculia tragacantha, Albizia adiantifolia, Ceiba pentandra,* and *Dialium guineense*. The **Sudanian** regional centre of endemism, is a woodland and savanna region with ferruginous soils, lying between 1°10'and 3°45'E and 10°20' and 12°10'N. The temperature

[1] See Maundu *et al*. (2009) for a review of the terms indigenous/native, exotic/introduced, naturalized, and traditional; and Bosch *et al*. (2005) for their distinction between indigenous, exotic and adapted.

reaches 40°C on average (with a range of plus or minus 5.5-6.5ºC). The mean annual rainfall and the rainy season duration decreases from the Guinean region (1,100 – 1,300 mm rainfall; 6 month rainy period) to the Sudanian region (900 – 1,100 mm rainfall; 5 month rainy period). Dominant species of the Sudanian region include *Isoberlinia spp, Combretum spp, Vitex doniana, Uapaca togoensis, Lophira alata, Vitellaria paradoxa* and *Khaya senegalensis*. The **Sudano-Guinean** transitional zone between the Guinean forests and the Sudanian woodlands and savannas is characterized by a vegetation mosaic of forest islands, gallery forests and savannas. Although there is a change in the flora from the coastal zone to the Sudanian region, there are no sharp floristic, geographical boundaries. The recent studies by Natta (2003), Akoègninou (2004), and Adomou (2005) provide detailed information on the floristic composition and the circumscription of vegetation types in Benin.

1.3 Purpose and objectives of the traditional vegetable research

In May 2006, the Institut National des Recherches Agricoles du Benin started work on a research project in collaboration with Bangor University (UK), entitled "Conservation of Biodiversity in Traditional West African Vegetable Species (project 15/003)" funded through the UK's Darwin Initiative.

This project had the overall purpose of improving the conservation and sustainable use of biodiversity in Benin by cataloguing traditional vegetable species and their uses; collecting seed and domesticating selected species; and promoting the value of traditional vegetables and the most promising domesticates to producers and consumers.

In order to develop a catalogue of the biodiversity of traditional vegetables, and to collect information about the uses and the threats to these species, two country-wide research programmes encompassing both ethnobotanical and socio-economic surveys were developed, to realise three specific objectives:

1. To inventory the diversity of species used as traditional vegetables throughout the country through an ethnobotanical survey carried out in 49 villages;
2. To collect information on the patterns and specific uses of traditional vegetables in rural and urban locations by conducting focus groups in 49 villages, and administering individual questionnaires in 18 villages and three cities;
3. To understand the threats to the biodiversity of traditional vegetables, and identify species which are threatened by over-exploitation or habitat change by administering individual questionnaires and carrying out in-depth interviews with key informants in 18 villages.

The species information presented in this catalogue draws primarily on the work carried out in the course of the Darwin Initiative 15/003 research programme. However, information on species belonging to the Cucurbitaceae family is derived from the project "Conservation of the Genetic Resources of Local Cucurbit Crops for Poverty Reduction in Benin (project T/3709-1)" funded by the International Foundation for Science.

1.4 Methodology

Table 1.1 and Figure 1.1 show the list of villages and cities/towns surveyed in the course of the Darwin Initiative 15/003 surveys, in each phyto-geographical zone, and indicates the

dominant socio-linguistic group in each location. Details on the methodology employed to address each specific objective are given in the following sections.

1.4.1 Inventory of traditional vegetables

The ethnobotanical surveys were carried out from September 2006 to February 2008 with 19 socio-linguistic groups spread over 49 villages. Except for the Ouémè group where only one village was surveyed, every other socio-linguistic group was sampled in at least two villages.

Table 1.1: Research methods used to collect information on traditional vegetables in Benin

Climatic region	Main socio-linguistic group	Type of location	Location	Focus group	Individual questionnaire	Semi-structured interviews
Guinean	Adja	Village	Afomayi	√		
		Village	Agnavo	√		
	Aizo	Village	Agbandonou	√		
		Village	Gbeko	√	√	√
		Village	Gome	√		
	Cotafon	Village	Assedji	√	√	√
		Village	Sohounme	√	√	√
	Fon	Village	Bognongon	√	√	√
	Holly	Village	Akpate	√	√	√
		Village	Ayetedjou	√	√	√
		Village	Zalimey	√		
	Mahi	Village	Zonmon	√	√	√
	Ouémè	Village	Gogbo	√	√	√
	Mixed but majority Goun	City	Porto Novo		√	
Sudano-Guinean	Anii	Village	Barikini	√	√	√
		Village	Kodowari	√		
		Village	Penelan	√		
		Village	Wellan	√	√	√
	Bariba	Village	Banigri	√		
		Village	Dabou	√		
		Village	Kpassa	√		
		Village	Soubado	√		
	Boko	Village	Mareguinta	√		
	Fon	Village	Sovlegni	√	√	√
	Idatcha	Village	Ileman	√	√	√
		Village	Kpakpaza	√	√	√
	Ifè	Village	Ekpa	√		
		Village	Tamba	√		
	Kotokoli	Village	Akarade	√		

Climatic region	Main socio-linguistic group	Type of location	Location	Focus group	Individual questionnaire	Semi-structured interviews
		Village	Tchimberi	√		
	Mahi	Village	Mondji	√		
		Village	Vossa	√	√	√
	Tchabè	Village	Ikemon	√		
		Village	Okunfo	√		
	Idatcha	Town	Dassa-Zoumè		√	
	Mixed but primarily Bariba and Dendi	City	Parakou		√	
Sudanian	Bariba	Village	Ganro	√	√	√
		Village	Keremou	√		
		Village	Poto-Poto	√		
		Village	Tankougou	√		
		Village	Zougou-Pantrossi	√		
		Village	Guessou-Sud		√	√
	Boko	Village	Bensekou	√		
	Dendi	Village	Kargui	√		
		Village	Torozogou	√		
	Dendi/ Djerma	Village	Garou-Tedji	√		
	Gourmantché	Village	Batia	√		
		Village	Loumbou-Loumbou	√		
		Village	Tanongou	√		
	Otammari	Village	Moupemou	√		
		Village	Tagaye	√		
	Waama	Village	Cotiakou	√		
		Village	Pouya	√	√	√
		Village	Tchaakalakou		√	√

The initial choice of villages is based on identifying the geographical distribution of socio-linguistic groups within the phyto-geographical region (e.g. Baco 2000, Okry 2000), and selecting sites which would provide a sample that covered both cultural and ecological criteria. The final choice of villages depended on guidance and advice from local extension service workers (e.g. Centre Regional de Promotion Agricole), who identified villages they knew used traditional vegetables. However, it was ensured that sampled villages belonging to the same socio-linguistic group within a phyto-geographical area should at least 20 km apart. Nine villages of the Bariba socio-linguistic group were surveyed because this particular group is spread out over a very large geographical area (see Baco 2000).

Focus groups were carried out in each village with at least 20 community members. The aim was to have a balanced composition in the focus groups, ensuring that both men and women and different age groups were represented. At the start of the focus group, participants were asked to collect to bring and display all plant species they collectively consumed as vegetables, and to provide the most common local names. An initial botanical identification was done in the field. Voucher specimens (i.e. samples of each species) were taken for determination (i.e. confirmation and identification) at the National Herbarium of Benin using the Flora of Benin (Akoègninou *et al*., 2006). All samples are currently stored at the National Herbarium. Following a first round of identification, a number of villages were visited for a second time to clear up any points of confusion, and to validate species lists with communities.

Where available, seed samples were also collected, and these are currently stored at the Institut National des Recherches Agricoles du Benin's Horticultural Programme research station, with a backup (for those samples which were collected in large enough quantities) at the World Vegetable Centre (AVRDC) office in Mali.

1.4.2 Patterns and modes of use

In order to understand the patterns and types of use of traditional vegetables in various rural locations, the focus group participants were also asked to indicate the periods of availability, medicinal properties, cultivation status, frequency of consumption, and time and value of sale of each plant sample.

These data were complemented by administering individual questionnaires to nine or ten respondents in each of 18 villages, 16 of which were a subset of the villages where the ethnobotanical surveys were conducted (Table 1.1). Respondents were asked to list the wild and cultivated vegetables they used, the type of use, details on their consumption habits, cultivation practices, and their perceptions on the threats to the biodiversity of traditional vegetables.

A similar questionnaire was administered in three urban locations: Porto Novo in the south, Dassa-Zoumè in the centre and Parakou in the north of the country[2]. Sixty respondents were interviewed in Porto Novo and Parakou and 59 in Dassa-Zoumè. Interviews were sought with female household members with food preparation responsibilities, though in a few instances only a male family member was available for the interview. Respondents in Parakou and Dassa-Zoumè were generally drawn from low or middle-income households.

[2] Porto Novo is located in the Guinean region, whereas the other two urban centres both fall within the Sudano-Guinean transitional zone.

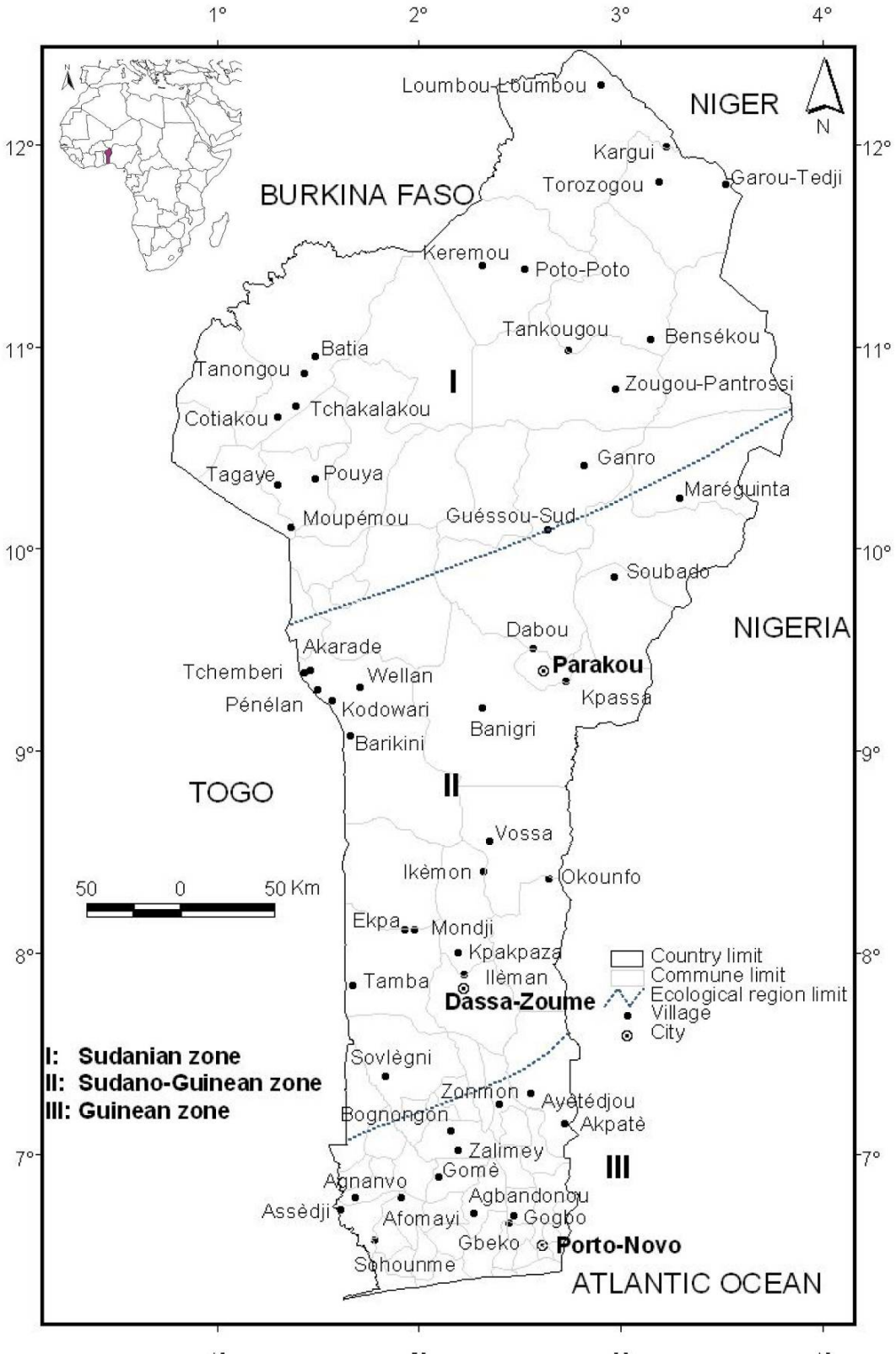

Figure 1.1: Survey areas in each phyto-geographical zone.

In Dassa-Zoumè 90% of respondents declared that the household income was less than 90,000 FCFA a month[3]. In Parakou 73% had incomes of <90 000 FCFA a month, and 25% had incomes between 91,000 and 180,000 FCFA. In Porto Novo incomes were more varied: 37% had incomes of below 90 000 FCFA; 37% between 91,000-180,000 FCFA; 17% between 181,000-270,000 FCFA; and 9% more than 270,000 FCFA. Nearly all respondents in Parakou were Bariba; in Dassa-Zoumè they were Idatcha; in Porto Novo there was a greater socio-linguistic mix, however, the majority were Goun.

1.4.3 Threats to the biodiversity of traditional vegetables

As mentioned in section 1.4.2 individual respondents were asked about their perception of the threats to the biodiversity of traditional vegetables, and specifically they were asked to name any species which they thought had disappeared or were disappearing from the environment.

This information was complemented with in-depth semi-structured interviews with four key informants in each of the 18 villages to gather more detailed information about changes in the availability of traditional vegetables over the decades, the threats, existing and possible conservation measures, and domestication practices. Both men and women were identified as key informants by the village communities.

1.4. Study limitations

This section summarises some of the methodological challenges and limitations of the study. In a country with over 40 socio-linguistic groups, language issues were obviously a significant challenge. In many cases, particularly in the north and the centre, it was necessary for the survey teams to operate with local translators. This carried the usual risks of poor or inaccurate translation and enumerator error, but it also meant that transcription of local names could differ, particularly when there was a change in the composition of the team members between village locations. Transcription problems were noted when matching the data collected through the individual questionnaires (a task which was allocated usually to enumerators with experience in socio-economic surveys, but no specific knowledge on traditional vegetables), with the botanical identifications collected during the focus groups (a task allocated to ethnobotanists).

Another set of problems common to ethnobotanical studies (see for example Berlin, 1992 or Alexiades, 1996) were encountered with regard to the naming of plants, namely the use of more than one local name to describe the same species. Focus groups tended to agree on one or two local names, but of course could not provide an exhaustive list. This meant that when the enumerators worked with individual respondents other names might be given, which could not be matched to the focus group data. In addition to this was the limitation of the same local name being used to describe more than one species. So, for a small number of records, there could be uncertainty as to which species the respondent was actually referring to. The repeat identification missions were undertaken precisely to resolve some of these uncertainties, but of course it was not feasible to visit all of the villages.

The situation was particularly complicated in the case of the urban surveys. Unlike the rural locations where the species could be found in nearby fields and countryside, in the

[3] 655.957 FCFA are equivalent to 1 Euro

urban locations it was not possible to do a botanical identification of the species people said they used. In the urban context the identification was based on the common names given in the relevant local language. This meant that in some cases identification could only be down to genus level (e.g. *Vernonia* sp. which could comprise either *Vernonia amygdalina* or *Vernonia colorata*), or, the identification could be narrowed down to two species with the same function (e.g. *Ceratotheca sesamoides* or *Sesamum radiatum*). In some instances, the common names given in the urban areas had not been encountered in the course of the village ethnobotanical surveys. Where this happened no identification was possible because the reference species were those collected in the village surveys (this should be borne in mind when examining the data presented in Chapter 3).

Identifying species which were rare or had disappeared was also difficult. If the species named by key informants (usually elderly village members who could describe changes in food habits over a long period of time) were genuinely rare or had disappeared from the local environment, they were obviously not brought to the focus groups for identification.

As a final note, it should be said that the research did not measure the absolute vegetable diversity of the country. Even though work was undertaken during both the rainy and dry seasons, and representatives from half of the socio-linguistic groups found in Benin were included in the surveys over a large number of villages, additional surveys are likely to identify additional species.

Nevertheless, the wide geographical and socio-linguistic coverage of this inventory represents an important step forward in understanding the diversity of the vegetables used in rural as well as in urban environments, and provides a solid foundation on which to base future research and development interventions.

Chapter 2 – Diversity of **traditional** vegetables and local taxonomy

EG Achigan-Dako & S N'danikou

This chapter summarizes vegetable species richness by family. It also presents the diversity of traditional vegetable species according to their phyto-geographical occurrence. Local nomenclature and classification approaches used at community level are presented and the meaning of local names is discussed.

2.1. Species richness and diversity

Recent studies from the African continent are recording an impressive diversity of species that are used as vegetables. For example, Maundu (1996) reports that 210 species are used by communities throughout Kenya. In Tanzania Keding *et al*. (2007) recorded 74 vegetables in one single district (Muheza) alone. In Togo, a country which borders Benin to the West, 105 species were recorded as wild vegetables (Batawila *et al*., 2007). In Cameroon Stevels (1990) estimated that 150 species were used.

In Benin Dansi *et al*. (2008) reported 187 leafy vegetable species, whilst the Darwin Initiative 15/003 surveys recorded 245 plant species, belonging to 62 families. This includes leafy, fruit or seed vegetables. Tables 2.2, 2.3 a, 2.3 b, 2.4 a and 2.4 b (at the end of this chapter) provide the complete list of vegetable species found in the surveyed socio-linguistic groups and villages and grouped by phyto-geographical regions.

For many of the plant families at least five species were recorded (Fig 2.1). Families with more than five vegetable species include Acanthaceae (6 species), Amaranthaceae (14 species), Asclepiadaceae (6 species), Asteraceae (29 species), Combretaceae (9 species), Convolvulaceae (9 species), Cucurbitaceae (14 species), Euphorbiaceae (11 species), Lamiaceae (8 species), Leguminosae (24 species for all three subfamilies), Moraceae (10 species), Pedaliaceae (5 species), Rubiaceae (10 species), Solanaceae (10 species), Sterculiaceae (5 species), Tiliaceae (6 species). Asteraceae and Cucurbitaceae are among the families with the highest diversity as vegetables, which reflects the pattern for Cameroon as noted by Stevels (1990). According to Batawila *et al*. (2007) the Fabaceae, Moraceae, Asteraceae and Malvaceae were among the most widely used plant families in Togo.

In the Acanthaceae family, species used include for example *Asystasia gangetica*, *Justicia tenella*, and *Justicia insularis*. In the Amaranthaceae examples include *Achyranthes aspera*, *Alternanthera brasiliana*, *Amaranthus cruentus*, *Amaranthus spinosus*, and *Celosia argentea*. Species of the Asclepiadaceae include *Leptadenia hastata*, *Secamone afzelii*, and *Telosma africana*. In the Asteraceae examples of species used are *Vernonia amygdalina* and *V. colorata*, *Chrysanthellum indicum*, *Crassocephalum rubens* and *C. crepidioides*, *Launaea taraxacifolia*, *Struchium sparganophora*. The Cucurbitaceae comprise species which are mostly used for their fruits or seed. Examples include, for instance, *Citrullus lanatus*, *Cucumeropsis mannii*, and *Lagenaria siceraria*. Other species of this family include *Momordica cissoides, Momordica charantia, Kedrostis foetidissima* and *Telfairia occidentalis* which are used mostly for their leaves.

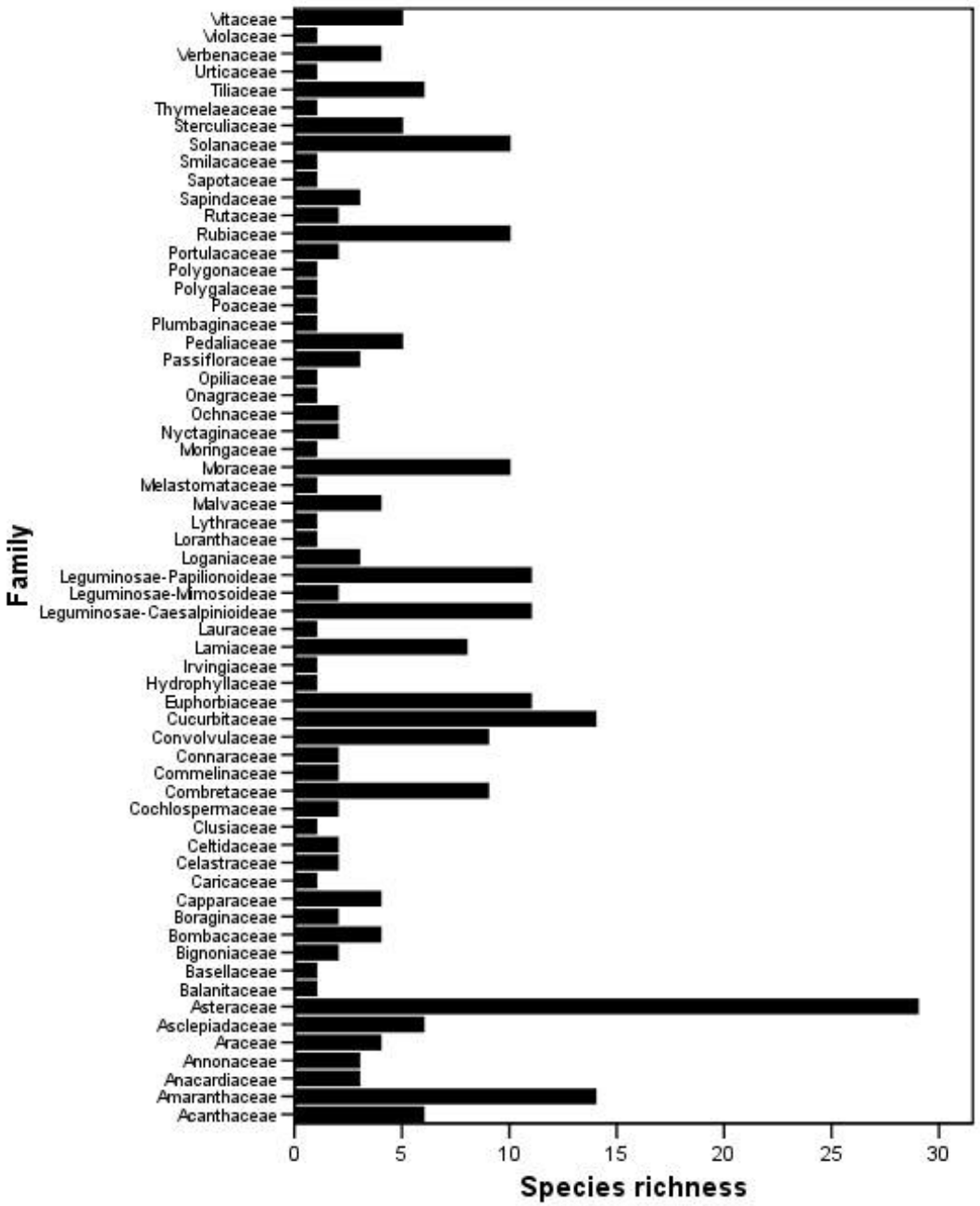

Figure 2.1: Number of species used as vegetable for 62 plant families in Benin

Examples of Leguminoseae which are used as vegetables comprise *Senna occidentalis, Senna obtusifolia, Afzelia africana, Daniellia oliveri,* and *Erythrina senegalensis*. In the Solanaceae the genus *Solanum* is the most used, which includes *Solanum americanum, Solanum aethiopicum, Solanum verbacifolium, Solanum macrocarpon* and *Solanum erianthum*. In Africa *Solanum americanum* and *S. scabrum* are usually confused with *S. nigrum* (Fontem and Shippers, 2004; Manoko and van der Weerden, 2004). Other species of Solanaceae used as vegetables include *Physalis angulata*. For the Tiliaceae family species such as *Corchorus olitorius*, *Corchorus tridens*, *Corchorus aestuans*, *Grewia mollis* are widely used. In the Moraceae only the genus *Ficus* is recorded as a vegetable and include species such as *Ficus asperifolia* and *Ficus thonningii*.

Most of these species exhibit intraspecific variations. Morphological variations have been described for species such as *Adansonia digitata* for which analysis of fruit traits and size revealed genetic differentiation among populations from the major phyto-geographical regions across the country (Assogbadjo *et al*. 2005a, 2005b, 2006). *Momordica charantia* also exhibits leaf shape variation and has been divided into two subspecies based on leaf traits (Achigan Dako 2008, Achigan Dako *et al*. 2008a). A number of varieties or cultivars of *Solanum macrocarpon* and *Amaranthus cruentus* are cultivated in Benin for their leaf size, fruit size and colour (Assogba Komlan, unpublished data). Even spiny forms are found in many areas of southern Benin. Another tremendously variable species is *Lagenaria siceraria*. The fruit of *L. siceraria* shows size and shape variations, which are used in different ways by local communities. For instance elongated soft cultivars are cooked as vegetables. Other cultivars are used only for their seed known as *egusi* (Achigan Dako *et al*. 2008b). For the genus *Cucurbita* three species are usually cultivated in Benin. This includes *C. pepo, C. moschata* and *C.maxima*. All three species exhibit size, shape, and colour variations. Some varieties show warts on the fruit pericarp (Fig. 2.2).

The life forms of vegetable species include tree, shrub, herb, and liana. Of 245 species 42% are herbs (e.g. *Alternanthera sessilis, Acmella oleracea, Chrysanthellum indicum*), 13% are liana (e.g. *Cissus* spp, *Momordica* spp, *Leptadenia hastata*), 18% shrubs (e.g. *Annona senegalensis, Grewia mollis, Deinbollia pinnata*), and 18.8% are tree species (e.g. *Vitex doniana, Bombax costatum, Sterculia tragacantha, Cola millenii*). Only one parasite species was inventoried, and this was *Cassytha filiformis* (Lauraceae) consumed in the Bariba community in Poto and in the Boko community in Bensekou. In most cases herbs were the most widely consumed life form by surveyed communities, and there were no marked differences between villages. No significant difference[4] in life form prevalence was observed among phyto-geographical regions (Table 2.1).

The diversity of traditional vegetables is associated with rich habitat diversity. In fact, of 245 vegetable species collected in Benin, 72% are wild and only 19% were clearly under cultivation. The remaining 9% of these resources were reported both as cultivated and wild, depending on the village. This suggests that they are in the process of being domesticated.

Many species are collected in the wild, from forests, savannahs, fallows, wetlands, along rivers, and abandoned areas. *Vitex doniana* is collected from fallow and abandoned areas, in wetlands and along rivers, and when land is cleared it is normally left untouched. *Cola millenii* is a forest tree that thrives for example in the semi deciduous forests of Pobè or relic formations in Toffo. *Adenia lobata* was mostly collected in humid forests or tree savannas in southern Benin. The species that are most often found in fallows are generally herbaceous and include *Momordica charantia, Bidens pilosa, Launaea taraxacifolia* and *Tridax procumbens*.

Table 2.1: Proportion of plant forms consumed as vegetables in phyto-geographical regions of Benin (n = species)

Life forms	Herb	Liana	Parasite	Shrub	Tree
Guinean (n=116)	56.90	12.93	0.00	13.79	16.38
Sudano-Guinean (n=155)	42.58	14.84	0.00	23.23	19.35
Sudanian (n=118)	55.08	13.56	0.85	11.86	18.64

[4] Chi-square test did not yield a significant result.

2.2. Folk taxonomy

Local taxonomy is the foundation of community-level natural resource management. Knowledge of plant identification is transmitted from one generation to another, collectively accepted and legitimated as long as the resource is available and continues to be used.

Local taxonomy may use one or a combination of the following criteria in the identification process: 1) botanical traits (including shape, size, life form, taste, smell, colour, etc.); 2) plant status (wild or cultivated); 3) plant habitat (mostly used with wild plants); 4) type of utilizations and preparations (e.g. glutinous sauce, leafy sauce, etc.); or 5) analogy to widely known object. Those criteria are used to distinguish taxa at specific level as well as at infraspecific level. Classification of specimens into groups is also based on the same principles in which the major usage or the prominent botanical traits of the resource are used as reference for clustering.

Folk taxonomy is revealed by the nomenclature associated to each resource. Vegetables are locally referred to by a variety of names which usually differ from one socio-linguistic group to another. For instance in Bariba communities ***Afonnu*** refers to *Amaranthus cruentus* while ***Afonnusuan*** (which means red type of ***Afonnu***) refers to *Celosia argentea*. ***Amavivè*** (*Vernonia amygdalina*) in the Fon community is the 'bitter leaf' which corresponds to the common name in English. The same species in Bariba communities is known as ***Tuan***; in Idatcha communities it is called ***Aroma*** while Cotafon, Aizo and Mahi communities call it ***Aloman***. Here no direct translation or identification criteria are recognizable or associated with the resource. Although *Momordica charantia* has bitter leaves, communities do not use the bitterness attribute to name the plant. It is known as ***Yinsinken*** or ***Tchaati*** in Fon and Ifè communities respectively.

It was also observed that the status of the species can be used for identification or identification and naming purposes although the usage made of the plant may be similar. In the Boko community in Bensekou ***Dossila*** refers to *Ceratotheca sesamoides* while ***Dossi*** is *Sesamum indicum*. For these communities the two species which belong to two scientific genera are similar both in morphology and utility as reflected in the names which come from a common root. However, the two plants thrive in different habitats and under different management modes: one is wild and the second is cultivated.

Within the same genus species names can be without any clearly common attributes, and may be related to other important socio-cultural beliefs and understanding. For instance in Bariba communities *Corchorus tridens* is called ***Yinrike*** while *Corchorus olitorus* is known as ***Yoyokun***, despite the two plants looking so similar and having similar uses. Fon communities name *C. tridens* ***Azataluga*** and *C. olitorius* is ***Ninnouwi***. The taste of a vegetable can also be translated in its name. In Cotafon communities (Assedji, Athiémé) *Hoslundia opposita* is referred to as ***Wonanvwè*** (the vegetable with which no maize porridge will remain) which is an indication of how strongly appreciated this vegetable is. Local names and their scientific correspondence are alphabetically listed in Annex A, which also shows the socio-linguistic groups and villages.

At a higher-scale level (i.e. above village level at an inter-village and regional level) folk taxonomy within a socio-linguistic group may vary, and be a source of confusion. Among the Bariba villages which were surveyed, for example, four referred to *Vitex doniana* as ***Konnonku*** (i.e. in Dabou, Kpassa, Banigri, Soubado), three named the species ***Yankonnonku*** (i.e. in Ganro, Zougou-Pantrossi, Tankougou). This slight change (adding of

prefix *yan*) in the species name is attributable to variations of vocabulary at the community level and is not necessarily an indication of botanical change or ecological variation.

In some instances, a local name can refer to many different species. For example ***Abotian*** in Bariba communities can be *Ocimum americanum* or *O. basilicum*; ***Etiologbo*** (which means 'ear of a man' in Holly communities) refers to *Emilia sonchifolia* in Zalimey and *Emilia praetermissa* in Ayetedjou. ***Egusi*** or A***gushi*** or G***oussi*** usually refer to three species (*Lagenaria siceraria, Citrullus lanatus* and *Cucumeropsis mannii*) for which seeds are the main plant part used. ***Toloman*** refers to many species depending on the socio-linguistic group. For example this name is given to *Struchium sparganophora* in Fon, Aizo and Mahi communities, whereas Aïzo communities use the same name to describe *Ludwigia perennis* or *Blumea viscosa*.

Table 2.2: Traditional vegetable species found in 13 villages (Adja, Aizo, Cotafon, Fon, Holly, Mahi and Ouémè socio-linguistic groups) located in the Guinean climatic zone of Benin

Socio-linguistic group	Adja		Aizo			Cotafon		Fon	Holly			Mahi	Ouémè
Village	Afomayi	Agnavo	Agbandonou	Gbeko	Gome	Assedji	Sohounme	Bognongon	Akpate	Ayetedjou	Zalimey	Zonmon	Gogbo
Scientific name													
Abelmoschus esculentus	√	√	√	√	√	√	√	√	√	√	√	√	√
Acalypha ciliata	√	√						√					
Achyranthes aspera													√
Adansonia digitata					√		√	√		√	√		
Adenia lobata								√					
Afraegle paniculata							√						
Alternanthera brasiliana									√				
Alternanthera sessilis	√	√		√			√			√	√	√	√
Amaranthus cruentus	√	√	√	√	√	√	√	√	√	√	√	√	√
Amaranthus dubius								√				√	
Amaranthus spinosus		√				√	√		√	√		√	
Amaranthus viridis	√	√	√	√	√	√			√				√
Aspilia africana						√							
Asystasia gangetica		√	√						√				
Basella alba				√			√	√			√		√
Bidens pilosa		√											
Blighia sapida									√	√	√		
Blumea viscosa				√									√
Boerhavia diffusa	√		√			√	√		√	√			

Socio-linguistic group	Adja		Aizo			Cotafon		Fon	Holly			Mahi	Ouémè
Village	Afomayi	Agnavo	Agbandonou	Gbeko	Gome	Assedji	Sohounme	Bognongon	Akpate	Ayetedjou	Zalimey	Zonmon	Gogbo
Scientific name													
Bombax costatum			√		√						√		
Celosia argentea	√		√	√	√	√	√	√	√		√	√	√
Celosia trigyna									√	√			√
Centrosema plumieri						√	√						
Ceratotheca sesamoides	√												
Chassalia kolly								√					
Chromolaena odorata										√			
Chrysanthellum indicum					√								
Citrullus lanatus	√	√	√	√				√	√	√	√		
Cleome gynandra	√	√				√			√	√	√	√	
Cleome rutidosperma		√				√	√			√	√	√	
Cola millenii					√								
Colocasia esculenta								√			√		
Combretum mucronatum							√						
Corchorus olitorius	√	√	√	√	√	√	√	√	√	√		√	√
Corchorus tridens	√	√			√		√	√			√	√	
Crassocephalum crepidioides				√						√			
Crassocephalum rubens		√			√	√		√			√	√	√
Crateva adansonii					√	√							
Crescentia cujete	√												

DIVERSITY OF TRADITIONAL VEGETABLES

Socio-linguistic group	Adja		Aizo			Cotafon		Fon	Holly			Mahi	Ouémè
Village	Afomayi	Agnavo	Agbandonou	Gbeko	Gome	Assedji	Sohounme	Bognongon	Akpate	Ayetedjou	Zalimey	Zonmon	Gogbo
Scientific name													
Croton lobatus		√							√	√	√	√	√
Cucumeropsis mannii	√		√					√		√	√		
Cucurbita moschata										√			
Cucurbita pepo									√		√		
Daniellia oliveri	√												
Deinbollia pinnata	√	√			√	√	√	√		√			
Eclipta prostrata						√							
Ehretia cymosa	√												
Emilia praetermissa										√			
Emilia sonchifolia		√				√	√	√			√		
Entada africana						√							
Ethulia conyzoides				√									√
Euphorbia heterophylla				√									
Ficus asperifolia	√												
Ficus polita								√					
Ficus sur											√		
Ficus thonningii			√			√							
Ficus trichopoda			√										
Laportea aestuans	√	√				√							
Hallea stipulosa								√					
Heliotropium indicum			√			√	√						√
Hibiscus sabdariffa								√					
Hoslundia opposita			√			√							
Ipomoea aquatica						√	√			√	√	√	

Socio-linguistic group	Adja		Aizo			Cotafon		Fon	Holly			Mahi	Ouémè
Village	Afomayi	Agnavo	Agbandonou	Gbeko	Gome	Assedji	Sohounme	Bognongon	Akpate	Ayetedjou	Zalimey	Zonmon	Gogbo
Scientific name													
Ipomoea batatas									√	√	√		
Ipomoea triloba	√												
Irvingia gabonensis								√		√	√		
Jatropha gossypiifolia					√								
Justicia anselliana				√									√
Lagenaria siceraria	√				√			√	√	√	√		
Launaea taraxacifolia	√	√	√		√	√	√	√	√	√	√	√	
Ludwigia perennis	√												
Macrosphyra longistyla			√	√			√						
Manihot esculenta	√	√	√	√	√	√	√	√	√	√	√	√	√
Manihot glaziovii					√	√	√						
Margaritaria discoidea			√										
Melanthera scandens		√				√	√						
Melochia corchorifolia				√									√
Momordica cissoides	√	√					√						
Moringa oleifera	√	√	√	√	√	√	√	√				√	√
Ocimum basilicum				√						√		√	
Ocimum canum												√	
Ocimum gratissimum	√	√	√	√	√	√	√	√	√	√	√	√	√
Parkia biglobosa								√		√		√	

DIVERSITY OF TRADITIONAL VEGETABLES

Socio-linguistic group	Adja		Aizo			Cotafon		Fon	Holly			Mahi	Ouémè
Village	Afomayi	Agnavo	Agbandonou	Gbeko	Gome	Assedji	Sohounme	Bognongon	Akpate	Ayetedjou	Zalimey	Zonmon	Gogbo
Scientific name													
Passiflora edulis						√	√						
Passiflora foetida			√		√								
Pergularia daemia	√												
Persicaria senegalensis				√									√
Portulaca oleracea													√
Psophocarpus palustris								√					
Psychotria calva			√										
Rothmannia longiflora			√										
Senna occidentalis			√			√		√					
Senna sophera					√		√						
Sesamum indicum												√	
Sesamum radiatum	√		√										
Solanum aethiopicum			√		√						√		
Solanum americanum						√			√	√	√	√	
Solanum macrocarpon	√	√	√	√	√	√	√	√	√	√	√	√	√
Solanum scabrum		√											
Solanum villosum		√				√			√				
Spigelia anthelmia						√	√		√				
Stachytarpheta indica	√	√	√	√	√	√	√	√		√	√	√	√
Sterculia tragacantha		√	√			√		√					

Socio-linguistic group	Adja		Aizo			Cotafon		Fon	Holly			Mahi	Ouémè
Village	Afomayi	Agnavo	Agbandonou	Gbeko	Gome	Assedji	Sohounme	Bognongon	Akpate	Ayetedjou	Zalimey	Zonmon	Gogbo
Scientific name													
Struchium sparganophora				√	√	√		√		√	√	√	√
Synedrella nodiflora						√							
Talinum triangulare	√	√	√	√	√	√	√	√	√	√	√	√	√
Telfairia occidentalis			√	√	√			√	√		√	√	
Telosma africana					√								
Terminalia glaucescens		√											
Terminalia superba											√		
Trichosanthes cucumerina										√			
Tridax procumbens		√				√	√						
Triplochiton scleroxylon						√							
Vernonia ambigua			√										
Vernonia amygdalina	√	√	√	√	√	√	√	√	√	√	√	√	√
Vernonia cinerea								√					
Vernonia colorata			√		√					√			
Vigna unguiculata		√		√	√	√	√	√	√	√	√	√	√
Vitex doniana	√	√	√	√	√	√	√	√	√	√	√	√	√
Xanthosoma maffafa	√	√	√	√	√	√	√		√	√			√
Total n species x village	***35***	***36***	***36***	***29***	***34***	***45***	***37***	***39***	***31***	***41***	***37***	***30***	***29***

Table 2.3 c: Traditional vegetable species found in 10 villages (Anii, Bariba, Boko and Fon socio-linguistic groups) in the Sudano-Guinean climatic zone of Benin

Socio-linguistic group	Anii				Bariba				Boko	Fon
Village	Barikini	Kodowari	Penelan	Wellan	Banigri	Dabou	Kpassa	Soubado	Mareguinta	Sovlegni
Scientific name										
Abelmoschus esculentus	√	√	√	√	√	√	√	√	√	√
Adansonia digitata	√	√	√		√	√	√	√	√	√
Adenia lobata			√							
Afraegle paniculata					√					
Afzelia africana		√			√		√			
Ageratum conizoides	√			√						
Alternanthera sessilis	√	√	√							
Amaranthus cruentus	√	√	√		√	√	√		√	√
Amaranthus viridis					√					
Ammannia baccifera							√			
Annona senegalensis	√	√	√				√			
Anogeissus leiocarpus	√			√						
Asystasia gangetica	√		√							
Basella alba			√			√				
Basilicum polystachyon				√						
Bidens pilosa				√						
Blighia sapida	√			√	√	√	√		√	
Boerhavia diffusa						√		√		
Boerhavia erecta									√	
Bombax costatum	√	√	√	√						
Bridelia ferruginea		√								
Calotropis procera						√				
Carica papaya				√						
Cyphostemma adenocaule	√		√	√						

Socio-linguistic group	Anii				Bariba				Boko	Fon
Village	Barikini	Kodowari	Penelan	Wellan	Banigri	Dabou	Kpassa	Soubado	Mareguinta	Sovlegni
Scientific name										
Ceiba pentandra	√									
Celosia argentea	√	√	√	√				√		√
Celosia trigyna					√			√	√	
Ceratotheca sesamoides		√	√		√	√	√	√	√	
Chassalia kolly				√						
Chromolaena odorata		√								
Chrysanthellum indicum			√							
Cissus populnea	√			√	√		√		√	√
Citrullus lanatus	√	√		√	√	√	√	√	√	√
Cleome gynandra					√					√
Cochlospermum tinctorium		√	√							
Colocasia esculenta	√	√		√	√	√	√			√
Combretum comosum var. hispidum				√						
Conyza sumatrensis		√								
Corchorus aestuans					√		√			
Corchorus olitorius	√	√	√	√	√	√	√	√	√	√
Corchorus tridens		√		√			√			√
Crassocephalum rubens				√	√					√
Croton lobatus								√		
Cucumeropsis mannii		√			√			√	√	√
Cucurbita pepo							√		√	
Daniellia oliveri	√			√						√
Dicoma sessiflora				√						
Eclipta prostrata	√									
Ehretia cymosa	√									
Ficus sur										√
Ficus sycomorus						√				
Ficus vallis-choudae		√								

Socio-linguistic group	Anii				Bariba				Boko	Fon
Village	Barikini	Kodowari	Penelan	Wellan	Banigri	Dabou	Kpassa	Soubado	Mareguinta	Sovlegni
Scientific name										
Laportea aestuans				√						
Gomphrena celosioides	√									
Grewia mollis	√			√						√
Heliotropium indicum	√				√				√	
Hexalobus monopetalus										√
Hibiscus asper					√	√		√	√	
Hibiscus sabdariffa	√	√			√	√	√	√	√	√
Hoslundia opposita				√						
Hybanthus enneaspermus								√		
Hydrolea macrosepala						√				
Ipomoea batatas	√			√						
Ipomoea fistulosa									√	
Ipomoea vagans				√						
Irvingia gabonensis										√
Justicia tenella							√		√	
Kedrostis foetidissima							√			
Lagenaria siceraria					√	√	√	√	√	√
Launaea taraxacifolia										√
Leptadenia hastata						√		√	√	
Lippia multiflora	√	√	√	√	√					√
Luffa aegyptiaca		√				√				
Maerua angolensis								√		
Manihot esculenta		√		√	√	√	√		√	√
Momordica charantia	√	√							√	
Momordica cissoides				√						
Momordica foetida				√						
Moringa oleifera					√	√	√	√	√	√
Nelsonia canescens						√				

Socio-linguistic group	Anii				Bariba				Boko	Fon
Village	Barikini	Kodowari	Penelan	Wellan	Banigri	Dabou	Kpassa	Soubado	Mareguinta	Sovlegni
Scientific name										
Ocimum americanum							√			√
Ocimum basilicum			√	√	√	√		√		
Ocimum gratissimum	√	√	√	√	√	√	√	√	√	√
Pandiaka involucrata	√									
Parkia biglobosa		√			√		√			√
Paullinia pinnata		√								
Phyllanthus amarus										√
Physalis angulata		√		√						
Physalis minima				√						
Piliostigma thonningii	√	√								
Pupalia lappacea	√									
Secamone afzelii				√						
Senna alata	√									
Senna occidentalis	√			√	√	√	√	√		√
Sesamum indicum	√				√		√			√
Sesamum radiatum						√		√		
Solanum aethiopicum										√
Solanum americanum	√			√					√	
Solanum macrocarpon	√	√	√		√	√	√	√	√	√
Solanum scabrum					√	√	√			
Stachytarpheta indica						√				√
Sterculia tragacantha	√	√	√							
Stereospermum kunthianum		√								
Struchium sparganophora				√		√				
Strychnos spinosa		√								
Stylochaeton hypogeum					√		√			
Talinum triangulare	√	√	√	√	√	√			√	√
Trema orientalis				√						

DIVERSITY OF TRADITIONAL VEGETABLES

Socio-linguistic group	Anii				Bariba				Boko	Fon
Village	Barikini	Kodowari	Penelan	Wellan	Banigri	Dabou	Kpassa	Soubado	Mareguinta	Sovlegni
Scientific name										
Trichosanthes cucumerina									√	
Vernonia amygdalina	√	√	√			√		√	√	√
Vernonia colorata										√
Vigna unguiculata	√			√	√		√		√	√
Vitex doniana	√	√	√	√	√	√	√	√	√	√
Xanthosoma maffafa		√	√					√		
Zanthoxylum zanthoxyloides	√	√								
Total n species x village	***42***	***38***	***24***	***41***	***35***	***33***	***31***	***26***	***30***	***37***

Table 2.3 d: Traditional vegetable species found in 10 villages (Idatcha, Ifè, Kotokoli, Mahi, Tchabè socio-linguistic groups) located in the Sudano-Guinean climatic zone of Benin

Socio-linguistic group	Idatcha		Ifè		Kotokoli		Mahi		Tchabè	
Village	Ileman	Kpakpaza	Ekpa	Tamba	Akarade	Tchimberi	Mondji	Vossa	Ikemon	Okunfo
Scientific name										
Abelmoschus esculentus	√	√	√	√	√	√	√	√	√	√
Adansonia digitata	√	√	√	√	√	√	√	√	√	
Afzelia africana						√				
Aganope stuhlmannii						√				
Amaranthus cruentus		√		√	√	√	√	√	√	√
Annona senegalensis					√	√				
Anogeissus leiocarpus										√
Basella alba	√									
Blighia sapida	√	√		√	√		√			√
Boerhavia diffusa	√	√								
Bombax costatum	√	√	√		√	√	√	√	√	√
Bridelia ferruginea						√				
Burkea africana						√				
Ceiba pentandra		√		√		√	√			
Celosia argentea	√		√		√	√	√	√	√	√
Celosia trigyna	√							√	√	√
Ceratotheca sesamoides	√	√	√	√	√	√	√		√	√
Cissus populnea	√	√	√	√			√	√	√	√
Cissus quadrangularis					√					
Citrullus lanatus	√	√	√	√	√	√	√	√		√
Cleome gynandra	√	√	√	√			√	√		
Cnestis ferruginea						√				
Cochlospermum planchoni		√	√			√			√	√
Colocasia esculenta	√	√	√				√	√	√	

Socio-linguistic group	Idatcha		Ifè		Kotokoli		Mahi		Tchabè	
Village	Ileman	Kpakpaza	Ekpa	Tamba	Akarade	Tchimberi	Mondji	Vossa	Ikemon	Okunfo
Scientific name										
Combretum collinum-							√			
Combretum molle						√				
Combretum sericeum						√				
Corchorus olitorius	√	√	√	√	√	√	√	√	√	√
Corchorus tridens	√	√	√	√			√	√		
Crassocephalum rubens	√	√	√	√			√	√	√	√
Cryptolepis oblongifolia						√				
Cucumeropsis mannii	√	√	√	√	√	√	√	√	√	√
Cucurbita maxima									√	
Cucurbita pepo	√								√	
Dalbergia saxatilis	√								√	
Daniellia oliveri					√	√				
Desmodium ramosissimum						√				
Detarium microcarpum						√				
Emilia praetermissa					√					
Entada africana						√				
Erythrina senegalensis						√				
Fadogia cienkowskii						√				
Fadogia erythrophloea					√					
Ficus abutilifolia									√	√
Ficus asperifolia			√			√				
Ficus polita							√			
Gmelina arborea						√				
Grewia cissoides						√				
Grewia mollis	√	√	√	√	√	√	√			
Gymnosporia senegalensis						√				
Heliotropium indicum							√			√
Hexalobus monopetalus						√				

Socio-linguistic group	Idatcha		Ifè		Kotokoli		Mahi		Tchabè	
Village	Ileman	Kpakpaza	Ekpa	Tamba	Akarade	Tchimberi	Mondji	Vossa	Ikemon	Okunfo
Scientific name										
Hibiscus asper					√					
Hibiscus sabdariffa	√			√	√	√	√	√	√	√
Ipomoea batatas	√							√		
Irvingia gabonensis	√	√					√			
Jatropha curcas										√
Justicia tenella	√	√	√	√					√	√
Lagenaria siceraria	√	√	√	√			√	√	√	√
Launaea taraxacifolia	√	√	√				√	√	√	√
Lippia multiflora	√	√	√	√			√	√	√	
Lophira lanceolata						√				
Maerua angolensis					√					
Mangifera indica						√				
Manihot esculenta	√	√	√	√	√		√	√	√	√
Manihot glaziovii						√				
Melastomastrum segregatum						√				
Momordica charantia			√	√			√		√	√
Morinda lucida						√				
Moringa oleifera	√	√		√			√	√	√	√
Ochna schweinfurthiana						√				
Ocimum americanum								√	√	√
Ocimum basilicum	√	√		√			√			
Ocimum gratissimum	√	√	√	√	√	√	√	√	√	√
Opilia amentacea						√				
Ozoroa pulcherrima						√				
Parkia biglobosa					√		√	√		
Pergularia daemia	√		√	√						
Phyllanthus amarus			√	√						
Piliostigma thonningii						√				

Socio-linguistic group	Idatcha		Ifè		Kotokoli		Mahi		Tchabè	
Village	Ileman	Kpakpaza	Ekpa	Tamba	Akarade	Tchimberi	Mondji	Vossa	Ikemon	Okunfo
Scientific name										
Platostoma africanum			√							
Psorospermum febrifugum						√				
Ricinus communis					√					
Rourea coccinea						√				
Rytigynia senegalensis						√				
Securidaca longepedunculata							√			
Senna occidentalis					√	√			√	√
Sesamum indicum								√		
Smilax kraussiana						√				
Solanum aethiopicum	√	√		√			√	√	√	√
Solanum americanum			√							
Solanum erianthum	√	√								
Solanum macrocarpon	√	√	√	√	√	√	√	√	√	√
Stachytarpheta indica	√	√				√				
Sterculia tragacantha	√	√	√	√	√		√	√		√
Strychnos spinosa						√				
Swartzia madagascariensis						√				
Synaptolepis retusa					√	√				
Talinum triangulare	√	√	√	√			√	√	√	√
Terminalia brownii						√				
Uvaria chamae	√	√								
Vernonia amygdalina	√	√	√	√	√	√	√	√	√	√
Vernonia colorata		√					√	√		
Vigna unguiculata	√	√			√		√	√		√
Vitex doniana	√	√	√	√	√	√	√	√	√	
Xanthosoma maffafa					√					
Total n species x village	***42***	***38***	***32***	***31***	***31***	***56***	***40***	***33***	***33***	***33***

Table 2.4 c: Traditional vegetable species found in 8 villages (Bariba, Boko and Dendi socio-linguistic groups) located in the Sudanian climatic zone of Benin

Socio-linguistic group	Bariba					Boko	Dendi	
Village	Ganro	Keremou	Poto-Poto	Tankougou	Zougou-Pantrossi	Bensekou	Kargui	Torozogou
Scientific name								
Abelmoschus esculentus	√	√	√	√	√	√	√	√
Acalypha ciliata							√	
Adansonia digitata	√	√	√	√	√	√	√	√
Amaranthus cruentus	√				√	√		√
Amaranthus spinosus	√							
Amaranthus viridis				√	√		√	√
Annona senegalensis		√	√		√			
Balanites aegyptiaca								√
Basella alba						√		
Blighia sapida				√	√	√		
Boerhavia diffusa	√					√		
Boerhavia erecta							√	
Bombax costatum		√				√		
Calotropis procera					√			
Canavalia ensiformis			√					
Cassia sieberiana		√						
Cassytha filiformis			√			√		
Cyphostemma adenocaule		√			√	√	√	
Celosia argentea	√			√	√	√	√	
Celosia trigyna	√				√	√		
Ceratotheca sesamoides	√	√	√	√	√	√	√	√
Cissus populnea		√		√		√		
Citrullus lanatus	√			√	√			

Socio-linguistic group	Bariba					Boko	Dendi	
Village	Ganro	Keremou	Poto-Poto	Tankougou	Zougou-Pantrossi	Bensekou	Kargui	Torozogou
Scientific name								
Cleome gynandra							√	
Cochlospermum tinctorium							√	√
Commelina benghalensis						√		
Corchorus olitorius	√			√		√	√	√
Corchorus tridens			√	√			√	√
Cucumeropsis mannii	√			√	√			
Cucurbita maxima			√					√
Cucurbita pepo						√		
Cyphostemma adenocaule						√		
Daniellia oliveri	√	√						
Gmelina arborea				√				
Hibiscus asper	√					√		
Hibiscus sabdariffa	√	√	√	√	√	√	√	√
Hybanthus enneaspermus	√							
Ipomoea asarifolia	√		√		√			
Ipomoea batatas	√		√	√	√	√		√
Ipomoea vagans								√
Justicia tenella	√				√	√		
Lagenaria siceraria	√				√	√	√	
Lannea microcarpa				√				
Leptadenia hastata	√	√		√	√		√	
Manihot esculenta	√		√		√	√		√
Moringa oleifera	√			√	√	√	√	√
Nelsonia canescens	√		√					
Ocimum basilicum	√					√		
Ocimum gratissimum	√			√	√		√	√
Opilia amentacea		√	√					

Socio-linguistic group	Bariba					Boko	Dendi	
Village	Ganro	Keremou	Poto-Poto	Tankougou	Zougou-Pantrossi	Bensekou	Kargui	Torozogou
Scientific name								
Parkia biglobosa			√					
Pistia stratiotes				√				
Portulaca oleracea						√	√	√
Senna obtusifolia						√		
Senna occidentalis	√	√		√	√	√		
Sesamum indicum	√					√		
Sesamum radiatum	√	√		√	√			√
Solanum aethiopicum	√						√	
Solanum americanum	√		√		√	√	√	
Solanum macrocarpon	√		√	√	√	√		
Sterculia setigera		√	√					
Stylochaeton hypogeum	√	√	√			√		
Triplochiton scleroxylon						√		
Vernonia amygdalina	√			√	√	√	√	
Vernonia colorata		√						
Vigna unguiculata						√		
Vitellaria paradoxa						√		
Vitex doniana	√	√	√	√	√	√		√
Xanthosoma maffafa	√				√			
Total n species x village	***35***	***18***	***20***	***24***	***29***	***37***	***21***	***19***

Table 2.4 d: Traditional vegetable species found in 8 villages (Dendi/Djerma, Gourmantché, Otammari, and Waama socio-linguistic groups) located in the Sudanian climatic zone of Benin

Socio-linguistic group	Dendi/ Djerma	Gourmantché			Otammari		Waama	
Village	Garou-Tedji	Batia	Loumbou-Loumbou	Tanongou	Moupemou	Tagaye	Cotiakou	Pouya
Scientific name								
Abelmoschus esculentus	√	√	√	√	√	√	√	√
Acalypha ciliata		√						
Acmella oleracea		√		√			√	√
Adansonia digitata	√	√	√	√	√	√	√	√
Afzelia africana		√						
Amaranthus cruentus				√		√	√	√
Amaranthus dubius		√						√
Amaranthus spinosus		√	√	√	√			
Amaranthus viridis		√						
Ammannia baccifera								√
Annona senegalensis					√	√		
Asystasia gangetica				√				
Basella alba		√		√			√	√
Blighia sapida					√	√	√	√
Boerhavia diffusa							√	
Boerhavia erecta		√			√	√		
Bombax costatum		√	√	√	√	√	√	√
Cyphostemma adenocaule				√		√	√	
Ceiba pentandra			√					
Celosia argentea				√	√	√		
Celosia trigyna				√				
Celtis toka			√					
Ceratotheca sesamoides	√	√	√		√	√	√	

Socio-linguistic group	Dendi/ Djerma	Gourmantché			Otammari		Waama	
Village	Garou-Tedji	Batia	Loumbou-Loumbou	Tanongou	Moupemou	Tagaye	Cotiakou	Pouya
Scientific name								
Chrysanthellum indicum								√
Cissus palmatifida					√		√	
Cissus populnea		√		√	√			
Citrullus lanatus		√		√	√	√		√
Cleome gynandra								√
Cleome rutidosperma		√		√	√	√	√	
Cochlospermum planchoni		√					√	
Cochlospermum tinctorium	√		√					√
Colocasia esculenta					√			√
Commelina benghalensis		√		√		√		
Commelina diffusa				√				
Corchorus olitorius		√		√	√	√	√	√
Corchorus tridens	√	√	√	√	√	√		√
Crassocephalum rubens							√	√
Crotalaria macrocalyx		√		√			√	
Croton lobatus						√		
Cucurbita maxima			√			√		
Cucurbita pepo		√		√	√	√		√
Cymbopogon giganteus					√	√		
Ficus ingens		√				√		
Ficus thonningii			√					
Laportea aestuans						√		
Grewia mollis		√		√	√	√		
Heliotropium indicum								√
Hibiscus asper		√		√	√	√	√	√
Hibiscus sabdariffa	√	√	√	√	√	√	√	√
Ipomoea argentaurata		√						

DIVERSITY OF TRADITIONAL VEGETABLES

Socio-linguistic group	Dendi/ Djerma	Gourmantché			Otammari		Waama	
Village	Garou-Tedji	Batia	Loumbou-Loumbou	Tanongou	Moupemou	Tagaye	Cotiakou	Pouya
Scientific name								
Ipomoea batatas					√	√		√
Ipomoea mauritiana				√				
Ipomoea triloba					√	√	√	√
Ipomoea vagans								√
Jatropha gossypiifolia						√		
Justicia insularis		√						√
Justicia tenella			√		√		√	√
Lagenaria siceraria		√					√	√
Launaea nudicaulis							√	
Luffa acutangula				√		√		
Macrosphyra longistyla				√				
Manihot esculenta			√			√		√
Margaritaria discoidea					√	√		
Mikania chenopodifolia				√				
Momordica charantia								√
Moringa oleifera	√		√	√			√	√
Ocimum basilicum		√			√			
Ocimum gratissimum				√	√	√		√
Parkia biglobosa						√	√	
Plumbago zeylanica								√
Portulaca oleracea	√	√	√	√				
Senna obtusifolia		√	√	√				
Senna occidentalis			√		√	√		√
Sesamum alatum	√		√					
Sesamum indicum		√	√	√	√	√	√	√
Sesamum radiatum	√							
Sida alba								√

Socio-linguistic group	Dendi/ Djerma	Gourmantché			Otammari		Waama	
Village	Garou-Tedji	Batia	Loumbou-Loumbou	Tanongou	Moupemou	Tagaye	Cotiakou	Pouya
Scientific name								
Solanum aethiopicum						√		√
Solanum americanum				√	√		√	√
Solanum macrocarpon		√		√	√	√		
Solanum scabrum								√
Solanum verbacifolium		√						
Sphenostylis schweinfurthii							√	
Stachytarpheta indica								√
Strychnos innocua							√	√
Talinum triangulare						√		√
Tamarindus indica		√					√	
Trichosanthes cucumerina				√				
Vernonia amygdalina				√	√	√	√	√
Vernonia cinerea					√			
Vernonia galamensis						√		
Vigna unguiculata		√	√	√	√	√	√	√
Vitex doniana		√		√	√	√	√	
Zanthoxylum zanthoxyloides				√	√	√	√	√
Total n species x village	***10***	***37***	***21***	***39***	***36***	***43***	***33***	***44***

Chapter 3 – Consumption and potential nutritional contribution of traditional vegetables in Benin

MW Pasquini & B Ambrose-Oji

Traditional vegetables are widely consumed in Benin, and are generally prepared as sauces to accompany a main staple. Because of the numerous socio-linguistic groups living in diverse agro-ecological and climatic conditions, a wide range of species are used. However, it is only recently that studies have started to document the diversity and patterns of use of these vegetables (Darwin Initiative 15/003 surveys; Adjatin, 2006; Dansi *et al*., 2008).

Using data collected in the course of the Darwin Initiative 15/003 surveys, this chapter provides an overview of the patterns of use of these vegetables, in 51 villages representing 19 socio-linguistic groups, and in three urban locations, Porto Novo, Dassa-Zoumè and Parakou. It will also consider the potential nutritional contributions of these vegetables, and highlight areas for further research and development.

3.1 Species used in rural areas of Benin

An impressive diversity of plant species are still being used as vegetables in rural communities across Benin, as shown in Table 2.2, 2.3a, 2.3b, 2.4a and 2.4b and as discussed in Chapter 2.

Discussions with mixed gender focus groups located in different phyto-geographical zones identified a range of different species. In the Guinean zone between 29 and 45 species were identified depending on village (Table 2.2), 24 and 56 species (Table 2.3 a and 2.3 b) in the Sudano-Guinean zone and between 18 and 44 species (Table 2.4 a and 2.4 b) in the Sudanian zone. Overall, a total of 245 species were identified, and the most widely found in each phyto-geographical zone are presented in Figures 3.1, 3.2 and 3.3. The three zones have quite a number of species in common, which are cultivated, for example: *Abelmoschus esculentus, Amaranthus cruentus, Corchorus olitorious, Manihot esculenta, Ocimum gratissimum, Solanum macrocarpon, and Vernonia amygdalina*. However, in terms of prevalence of wild species, there are marked differences between the zones. For instance: *Stachytarpheta indica* and *Launaea taraxacifolia* are only widely found in the Guinean zone; *Lippia multiflora* and *Cissus populnea* are mostly found in the Sudano-Guinean region; while *Senna occidentalis* is found mainly in the Sudanian region. *Adansonia digitata*, *Bombax costatum* and *Ceratotheca sesamoides* are widespread in villages in the Sudano-Guinean and the Sudanian regions, but not in the Guinean zone.

Not all of the species reported by the village focus groups are used throughout the year, neither are they necessarily used on a regular basis. Figures 3.4, 3.5 and 3.6 show differences in seasonal consumption of indigenous vegetables, listing the top five most frequently consumed vegetables , in each of phyto-geographical zones during the dry season, the rainy season or those utilised throughout the year.

The three figures show that *Abelmoschus esculentus* and *Corchorus* species are widely used throughout the country, during the rainy season or even year-round, depending on the village. *Vitex doniana* is also a very popular vegetable, recorded in all three zones, but this species is generally regarded as a dry season resource. Other species are more clearly linked to the phyto-geographical zones. *Solanum macrocarpon* was amongst the five most frequently used vegetables in all three zones, but is particularly popular in the Guinean villages, where it is used throughout the

year. *Adansonia digitata, Hibiscus sabdariffa* and *Ceratotheca sesamoides* are key vegetables for the Sudanian zone at all times of year. *Launaea taraxacifolia* is a rainy season vegetable, found to be a widespread resource only in the Guinean zone (recorded in ten out of 13 villages).

There are other species which are widely known, but used only occasionally or rarely, in specific circumstances. Figures 3.7 and 3.8 show the top five of these for each zone. For example, *Ocimum gratissimum* is reputed for its health benefits, but it is not consumed on a regular basis in any of the three zones. *Solanum americanum* and *Senna occidentalis* are used rarely, but are reasonably widespread in villages in the Sudanian zone because of their medicinal properties. Wild vegetables can play an important role when other sources of nutrition are limited, for example during the 'hunger gap' (*soudure*) between the end of the previous years agricultural stocks and harvest of the new season's crop, or during years of drought when certain species are used as 'famine foods'.

Belonging to a particular socio-linguistic group undoubtedly influences vegetable consumption patterns. However, there are noticeable variations from village to village of the same socio-linguistic group between, but also within, phyto-geographical zones. Data from the Bariba group show, that whilst there are a number of species which are found in only a few, or even just a single village (e.g. *Luffa aegyptiaca* which was only found in Dabou), they are reported to be consumed frequently[5].

Figures 3.9 to 3.12 present data collected through individual questionnaires rather than focus groups. Figure 3.9 shows the traditional vegetables used by the majority of respondents in the three zones. The results present a similar picture, substantiating the focus group data, although there are some small differences in the case of a few species. For example, *Moringa oleifera* was reported to be frequently used by the focus groups in ten out of 13 Guinean villages (Figure 3.1), but it was not one of the top ten most widely used species by individual respondents (Figure 3.9). Indeed only 17 out of approximately 80 respondents reported using *M. oleifera*.

Figures 3.10, 3.11 and 3.12 show the top ten most widely cited vegetables by individual respondents in two villages of the Fon, Idatcha and Bariba socio-linguistic groups. These results show the variation between villages of the same socio-linguistic group, both between phyto-geographical zones (e.g. the Fon villages) and within them (e.g. the Idatcha and Bariba).

3.2. Species used in urban areas of Benin

The patterns in the urban areas are somewhat different to the rural locations. Figure 3.13 shows the most widely used vegetables amongst respondents surveyed in the three cities of Porto Novo, Dassa-Zoumè and Parakou[6]. Only four species were commonly used in all three cities, with varying degrees of importance, these were *Abelmoschus esculentus, Solanum macrocarpon, Amaranthus cruentus* and *Corchorus olitorius*. In Porto Novo consumer preferences were largely restricted to the four common species mentioned above, and *Celosia argentea*. In Dassa-Zoumè in addition to those used in Porto Novo, an important number of consumers reported using *Launaea taraxacifolia, Ocimum gratissimum* and *Vitex doniana.* In Parakou consumers' diets were dominated by three species which all have glutinous properties: *A. esculentus, Sesamum radiatum or S. indicum and Ceratotheca sesamoides*. The latter two are very similar in terms of taste and appearance.

[5] It is cautioned that the data collection approach used does not record absolute species richness in a socio-linguistic community or even in a village.

[6] See Chapter 1 for information on the socio-linguistic and income status characteristics of the survey sample in the three cities.

Consumers in Parakou had different names to describe the dry and fresh forms of both the fruit and the leaves of *A. esculentus*. *Hibiscus sabdariffa*, which was not reported in either of the two other cities, was also an important vegetable in this city.

Comparing the results for the urban and rural areas suggests that certain vegetable resources may not be as available to, or are too expensive for, urban consumers. For example, *Adansonia digitata* and *Vitex doniana* are popular in the Bariba villages, but in Parakou a rather small proportion of consumers used these vegetables. Similarly, *Launaea taraxacifolia*, which is widely used in villages in the Guinean zone, was not recorded in Porto Novo.

Consumers in the three cities were also asked if there were any vegetables that they were acquainted with, but did not use, and if so, what their reasons were. The answers were then classified into broad categories, and these are shown in Figure 3.14 expressed as a percentage of the overall number of answers given in each city (the much smaller total number of answers in Parakou should be noted). Though a range of answers were given in all three cities, it is interesting to note how 38% of reasons given in Porto Novo centred on stomach complaints. In Dassa-Zoumè the main reasons given were food taboo and dislike of the texture, taste, or smell (both just over 35%).

Overall respondents cited 30 species that they did not use. However, six species accounted for 61% of all responses. These were *Celosia argentea* (35), *Solanum macrocapon* (22), *Abelmoschus esculentus* (cited 17 times), *Talinum triangulare* (15), *Adansonia digitata* (13) and *Vitex doniana* (11).

The main reasons respondents in each city gave for not using specific species are shown in Figure 3.15. The data show how the non-consumption of certain species can be tied to specific environments and for specific reasons. For example, *Solanum macrocarpon* was mostly rejected by consumers located in Dassa-Zoumè, and the main reason was that the species was a taboo for the respondent's family. *Celosia argentea* was also frequently rejected in Porto Novo, the primary cause being stomach upsets. The species was also rejected by quite a number of consumers in both Porto Novo and Dassa-Zoumè because of taste preferences.

3.3. The use of traditional versus non-traditional species

Based on the individual questionnaire survey data, the 18 villages and three cities exhibited quite striking differences in terms of households' use of traditional versus non-traditional[7] species.

In the Sudanian and the Sudano-Guinean zones it was very common for village respondents to only use traditional vegetables. On average this was the case for 73% and 93% of respondents respectively in the two zones. In the Guinean zone the situation varied enormously from village to village. In Bognongon and Zonmon respondents only used traditional vegetables, but this was not the case for the remaining four villages, where the majority of respondents used both traditional and non-traditional vegetables.

The urban settings reflect the rural trends. In Porto Novo, all respondents used a mixture of traditional and non-traditional vegetables, in both seasons. However, in Dassa-Zoumè and Parakou at least 85% and 60% of respondents, respectively, only used traditional vegetables.

[7] As explained in Chapter 1, in this context the term non-traditional refers to species such as *Daucus carota* (carrot), *Lactuca sativa* (lettuce), *Phaseolus vulgaris* (French beans) and *Brassica oleracea* (headed cabbage). Locally, these species are often seen as 'exotic', but according to the classification used by Bosch *et al*. (2005) these are 'adapted' species. To avoid any confusion, particularly in the section on nutritional contributions of traditional vegetables, the term 'non-traditional' has been used rather than exotic. Species such as *Lycopersicon esculentum* (tomato) and *Allium cepa* (onion) are considered locally as traditional, but it was specified to individual respondents that information was not being sought on these two species.

Figures 3.16, 3.17, 3.18 and 3.19 show how many respondents in the three cities used different numbers of traditional and non-traditional, and only traditional, vegetables in periods of high and low availability[8]. Figures 3.20 and 3.21 combine the data to show how the use of specific numbers of traditional vegetables relates to the overall use of vegetables in each city in the high and low availability periods (e.g. Figure 3.20 shows that for eight consumers in Porto Novo traditional species made up three of the five vegetables they used overall in a week, whereas for eight consumers in Dassa-Zoumè the three vegetables they used were all traditional species).

The data indicate that in the high availability period, overall vegetable diversity was highest in Porto Novo, followed by Parakou and Dassa-Zoumè (Figure 3.16). The diversity declines in the low availability period for all cities, Dassa-Zoumè exhibiting the most striking downward change (Figure 3.17). Figure 3.18, however, clearly shows that in terms of traditional vegetables the diversity in Porto Novo is much lower than in the other two cities. In the low availability period, all cities see a decline in the diversity of traditional vegetables, and Dassa-Zoumè exhibits the greatest decline (Figure 3.19). As can be derived from Figure 3.20, non-traditional species are widely used by respondents in Porto Novo, equalling or surpassing traditional species in number; whereas for respondents in Parakou, and Dassa-Zoumè particularly, traditional vegetables are used exclusively or in great majority. Figure 3.21 in the low availability season shows the same city patterns.

3.4. Nutritional contributions of traditional vegetables

The most comprehensive and up-to-date review of the research on the nutritional contributions of traditional vegetables in Africa is provided by Yang and Keding (2009) who examined available information on nutritional values of indigenous and adapted vegetables, as well as existing studies on vegetable consumption in Africa (patterns of consumption in rural and urban areas, amounts, frequency, seasonality, changes in consumer behaviour, preservation and cooking practices).

The authors compare the nutrient contents of indigenous (i.e. native to Africa), adapted (introduced long ago and widely adapted) and exotic (recently introduced) vegetable species, classified as priorities for Africa by Bosch *et al*. (2005) by collating data obtained from Grubben and Denton (2004), AVRDC (AVRDC 2002; 2004; unpublished data) and the USDA nutrient database (USDA).

Table 3.1, which is derived from this work, presents the nutrient contents of select species that are widely used in Benin. Four non-traditional species (classified as adapted under PROTA's definition) are included as comparison.

As the table clearly shows, *Moringa oleifera* is an exceptionally nutritious vegetable, with the highest values of all nutrients (except folates, which were not determined). *Corchorus olitorius* is also a very good source of most nutrients. In general terms, the traditional leafy vegetables have relatively high amounts of β-carotene and iron content, whereas these are much lower in the fruit vegetables, and in the non-traditional vegetables (except carrot which has high levels of β-carotene). *Amaranthus dubius* has higher nutrient values than *Amaranthus cruentus*. However, in Benin, the latter species is the most widely used. *Celosia argentea* is particularly rich in folates.

[8] In Porto Novo most respondents stated that the high availability season falls between February and June, whereas the low availability season is between August and October. This is linked to the fact that Porto Novo is mostly supplied by the lowlying flood land in the Oueme Valley, where production takes place once flood waters recede. This differs from the situation in Dassa-Zoumè and Parakou where the high availability season coincides with the rainy season, roughly from April to October, and the low availability period is the dry season during the remainder of the year.

Some of these traditional vegetables may also have other health-giving benefits. Species such as *Adansonia digitata, Corchorus olitorious, Moringa oleifera* and *Vigna unguiculata* are rich in flavonoids which have anti-oxidant function; *Corchorus olitorius, Vigna unguiculata* and *Momordica charantia* can be used as anti-diabetic agents as they show hypoglycemia activity (Yang and Keding, 2009).

Even though research on the nutritional value of indigenous vegetables is now emerging, it is unfortunate that at the present time, little can be said about the nutritional contribution of traditional vegetables to the diets of people in Benin. Whilst it is encouraging to find that most of the species which are popular and used widely are rich in nutrients, information and up-to-date studies on the amounts of vegetables actually consumed, and the effect of preservation, preparation and cooking methods on nutritional content and bioavailabilty remains extremely limited.

A recent study by Sodjinou *et al*. (2007) examines the dietary patterns of adults in Cotonou, exploring the links with diet quality (scoring dietary diversity, micronutrient adequacy and healthfulness) and socio-demographic factors (socio-economic status and urbanization status). A reasonably high consumption of vegetables was reported. Subjects with a "traditional" diet consumed on average 110.4g per day (130.1 standard deviation) of green leafy vegetables and 189.6 g per day (130.5 s.d.) of other vegetables; whereas subjects with a "transitional" diet consumed 114.4 g per day (125.9 s.d.) of green leafy vegetables and 226.3 g per day (160.6 s.d.) of other vegetables[9]. However, the study (*ibid*) does not distinguish between different types of vegetables.

Another study in Cotonou reported an average vegetable consumption of 319.49 g per day (Guidi, 2007). However, the main contribution came from tomato (*Solanum lycopersicum*) at 165.89 g, onion (*Allium cepa*) at 38.32 g, and pepper (*Capsicum* spp) at 22.24 g. Whilst these three vegetables were eaten six days or every day of the week, depending on the neighbourhood, traditional vegetables *(Abelmoschus esculentus, Amaranthus cruentus, Corchorus olitorius, Solanum macrocarpon, Vernonia amygdalina, Vigna unguiculata* and *Vitex doniana),* were only eaten once or twice a week. The author cautioned that the study took place during the period of high vegetable availability, and particularly high tomato availability.

There is then an obvious and important need for further studies to distinguish between the contributions of traditional and non-traditional species in different environments (both physical and social) across the country, and at different times of year. The fact that the diversity of species used in the low availability season declines so dramatically compared to the high availability season in Dassa-Zoumè (two-three species for the majority of respondents, down from five-six – Darwin Initiative 15/003 surveys), for example, is a particular cause for concern.

Furthermore, as Benin does not have a national food composition table, a concerted effort on developing food composition data, which should pay particular attention to wild resources and should be based on processed/cooked foods, is undoubtedly an urgent priority (Sodjinou, 2006).

[9] The World Health Organisation/Food and Agriculture Organization recommend that 400 g of fruits and vegetables should be consumed per day (WHO, 2003). In Cotonou, urban consumers do not meet this guideline mainly because fruit consumption in both the traditional and transitional groups is very low (15.7 g and 8.2 g, respectively; Sodjinou et al., 2007).

Table 3.1: Nutrient values of traditional and non-traditional vegetables of importance in Benin

Species and status	Plant part	Source	DM %	Pro g	A mg	C mg	E mg	F µg	Ca mg	Fe mg	Zn mg
Traditional											
Abelmoschus esculentus (indigenous)	Fruit	AVRDC	8.9	1.8	0.4	37	0.5	32	44	0.9	0
Adansonia digitata (indigenous)	Leaf	AVRDC	18	3.8	2.7	69	3.5	35	264	2	0.6
Amaranthus cruentus (adapted)	Leaf	AVRDC	9.4	3.2	1.8	36	1.1	52	305	3.8	0.7
Amaranthus dubius (adapted)	Leaf	AVRDC	11.2	3.5	3.1	78	2.1	82	582	3.4	1.5
Celosia argentea (indigenous)	Leaf	AVRDC	10.4	3.7	4.1	35	1.4	159	162	2.3	0.3
Ceratotheca sesamoides (indigenous)	Leaf	PROTA	19	4.2		28			300	3.2	
Citrullus lanatus (indigenous)	Fruit	USDA	8.6	0.6	0.3	8	0.1	3	7	0.2	0.1
Corchorus olitorius (indigenous)	Leaf	AVRDC	15	4.8	4.7	105	3.6	92	259	4.5	0.4
Crassocephalum crepidioides and *C.. rubens* (indigenous)	Leaf	PROTA	20.1	3.2					260		
Cucurbita maxima (adapted)	Fruit	AVRDC	7.1	2.3	0.2	18	1.7	36	65	1.1	0.5
Cucurbita moschata (adapted)	Fruit	USDA	13.6	1.0	4.2	21	1.4	27	48	0.7	0.2
Hibiscus sabdariffa (indigenous)	Leaf	AVRDC	10.8	2.5	2.5	28	1.9		183	1.2	
Launaea taraxacifolia (indigenous)	Leaf	PROTA	15.7	3.2					326		
Moringa oleifera (adapted)	Leaf	AVRDC	24.9	8.6	19.7	274	13.4		584	10.7	2.8
Solanum macrocarpon (indigenous)	Leaf	PROTA	14.4	4.6					391		
Solanum macrocarpon (indigenous)	Fruit	PROTA	11	1.4					13		
Talinum triangulare (indigenous)	Leaf	AVRDC	6.2	1.9	3.3	3	0.9		41	1	
Vigna unguiculata (indigenous)	Leaf	AVRDC	11.8	4.5	2.9	75	3.0	123	275	1.9	0.6
Vernonia amygdalina (indigenous)	Leaf	PROTA	17.4	5.2		51			145	5	
Non-traditional											
Brassica oleracea (adapted)	Leaf	PROTA	9.9	1.7	0.4	49		75	52	0.7	0.3
Daucus carota (adapted)	Root	USDA	11.7	0.9	8.3	6	0.7	19	33	0.3	0.2
Lactuca sativa (adapted)	Leaf	USDA	4.4	0.9	0.3	3	0.2	29	18	0.4	0.2
Phaseolus vulgaris (adapted)	Fruit	PROTA	9.3	1.9	0.3	12		80	36	1.2	0.2

Source: Adapted from Yang and Keding (2009). Indigenous or adapted status as per PROTA (2005). Nutrient content values are based on 100 g fresh weight of edible portion; DM: dry matter; Pro: protein; A: β-carotene; C: vitamin C; E: α-tocopherol; F: folates

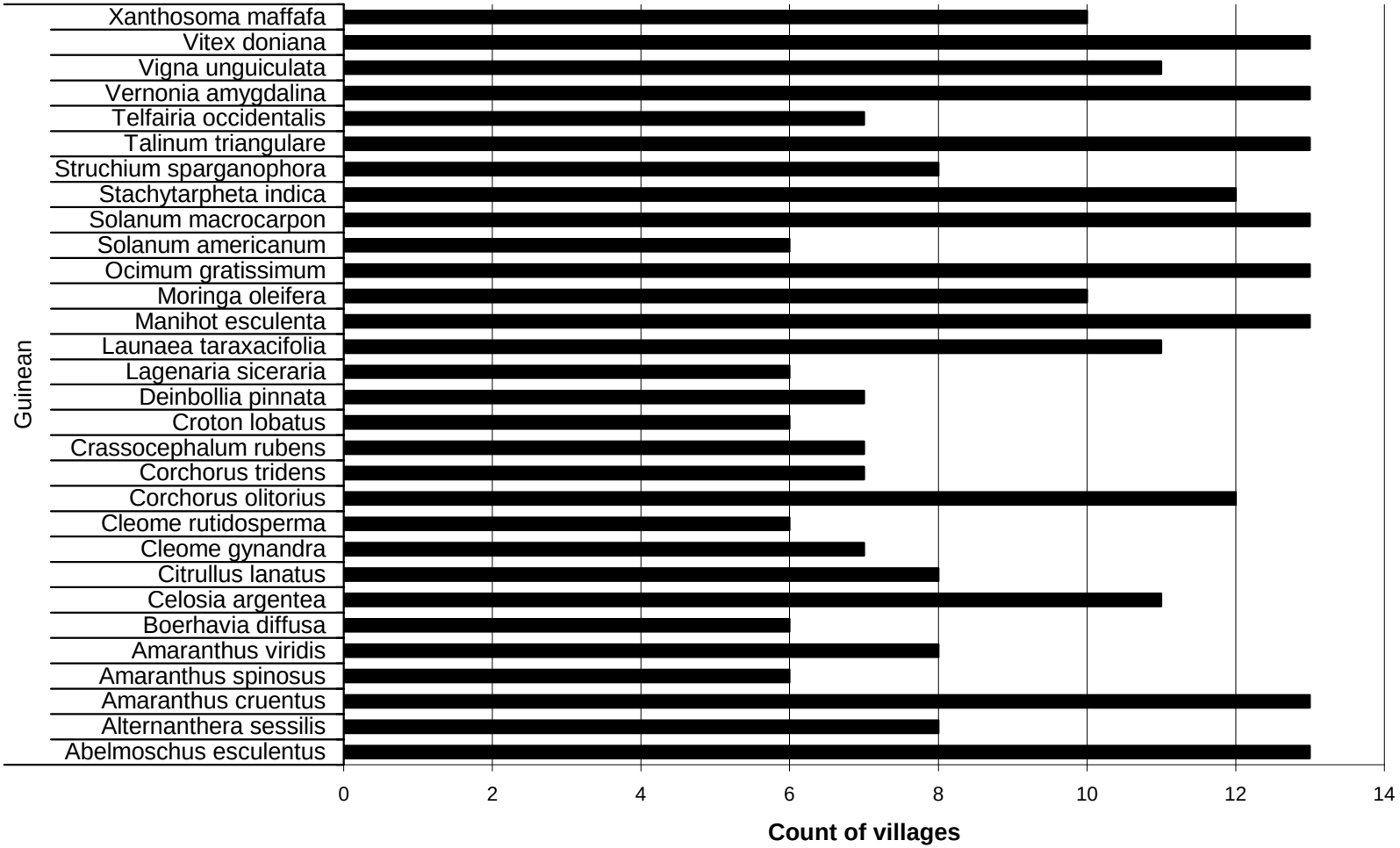

Figure 3.1: Most widely found traditional vegetables in the Guinean phyto-geographical zone of Benin (village focus group data, n=13). The graph shows the number of villages where each species was recorded. Overall, 13 villages were surveyed in the Guinean zone. The data were collected through village focus groups. No distinction is made in terms of frequency of consumption.

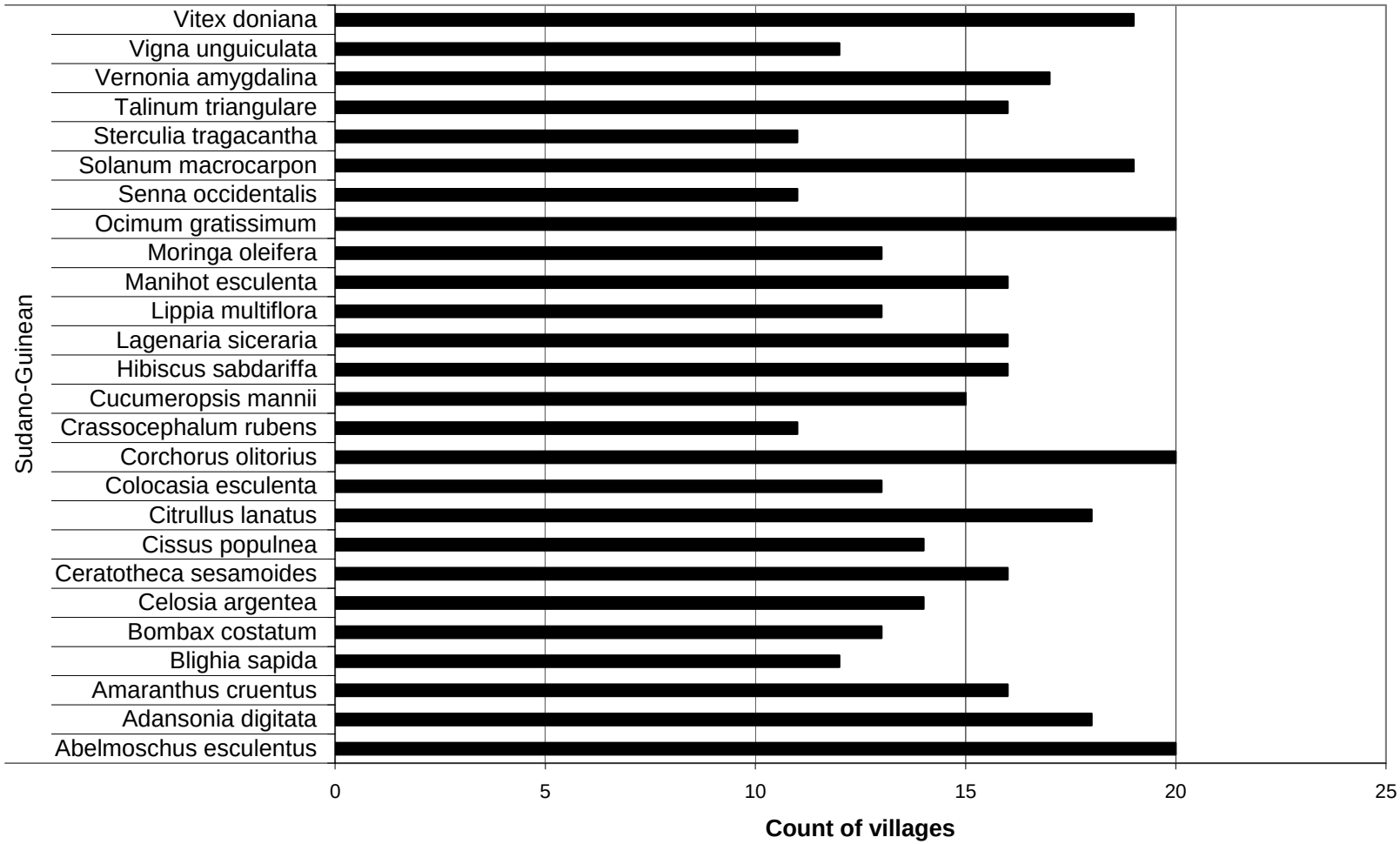

Figure 3.2: Most widely found traditional vegetables in the Sudano-Guinean phyto-geographical zone of Benin (village focus group data, n=20). The graph shows the number of villages where each species was recorded. Overall, 20 villages were surveyed in the Sudano-Guinean zone. The data were collected through village focus groups. No distinction is made in terms of frequency of consumption.

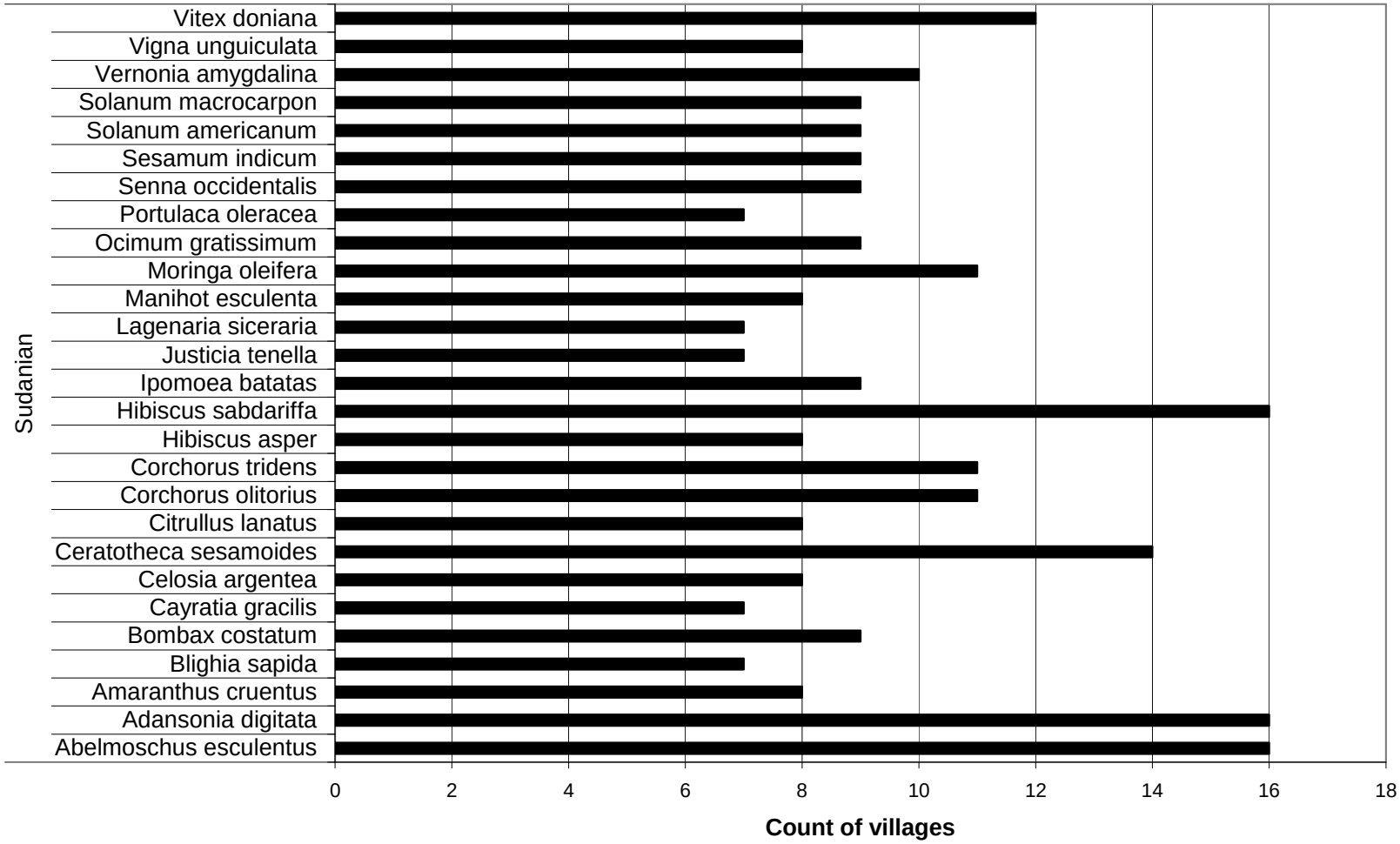

Figure 3.3: Most widely found traditional vegetables in the Sudanian phyto-geographical zone of Benin (village focus group data, n=16). The graph shows the number of villages where each species was recorded. Overall, 16 villages were surveyed in the Sudanian zone. The data were collected through village focus groups. No distinction is made in terms of frequency of consumption.

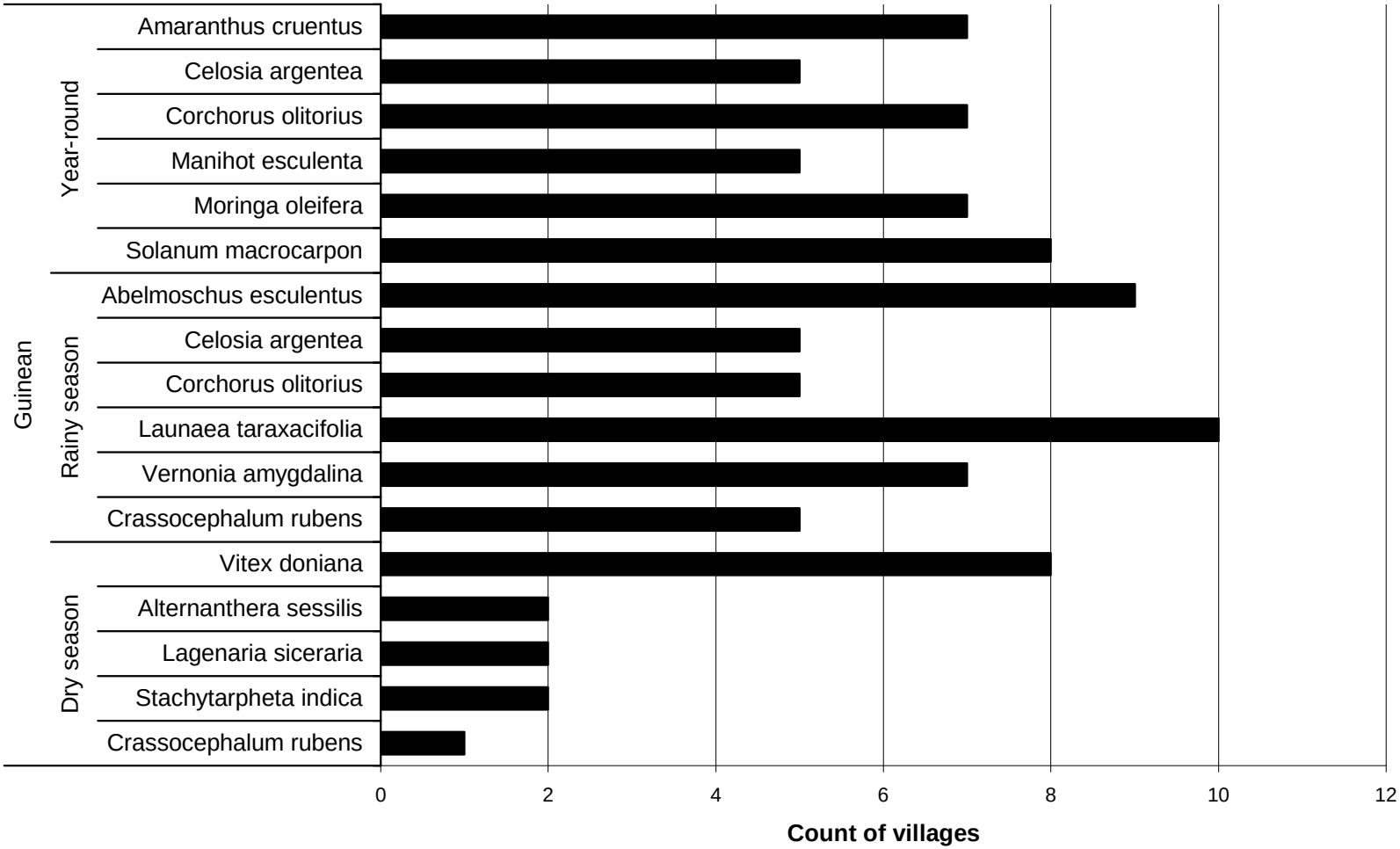

Figure 3.4: Top five frequently consumed traditional vegetables at different times of year in the Guinean zone of Benin (village focus group data, n=13). The graph shows for different periods of the year the top five frequently consumed, traditional vegetables in 13 villages in the Guinean zone of Benin.

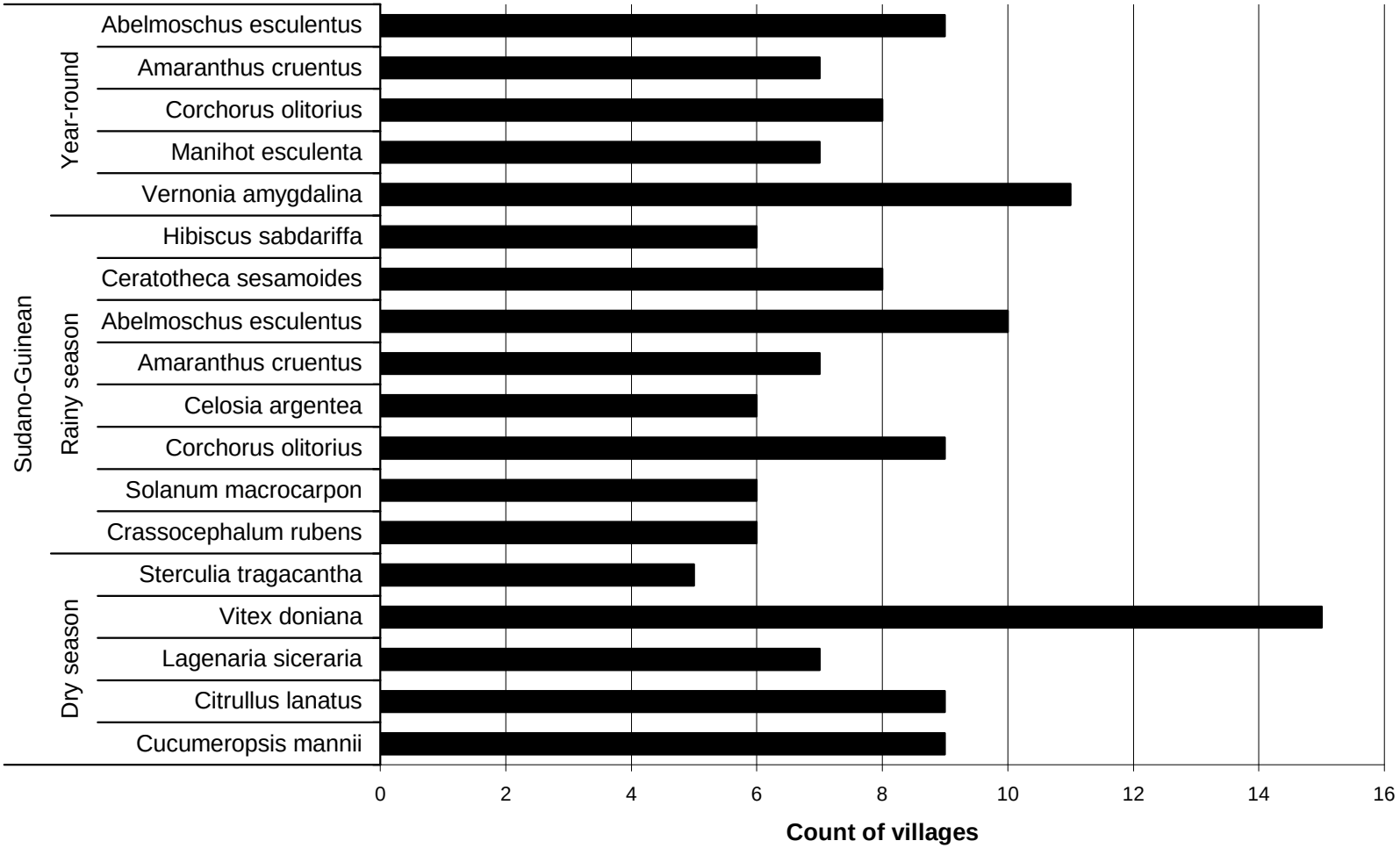

Figure 3.5: Top five frequently consumed traditional vegetables at different times of year in the Sudano-Guinean zone of Benin (village focus group data, n=20). The graph shows for different periods of the year the top five frequently consumed, traditional vegetables in 20 villages in the Sudano-Guinean zone of Benin.

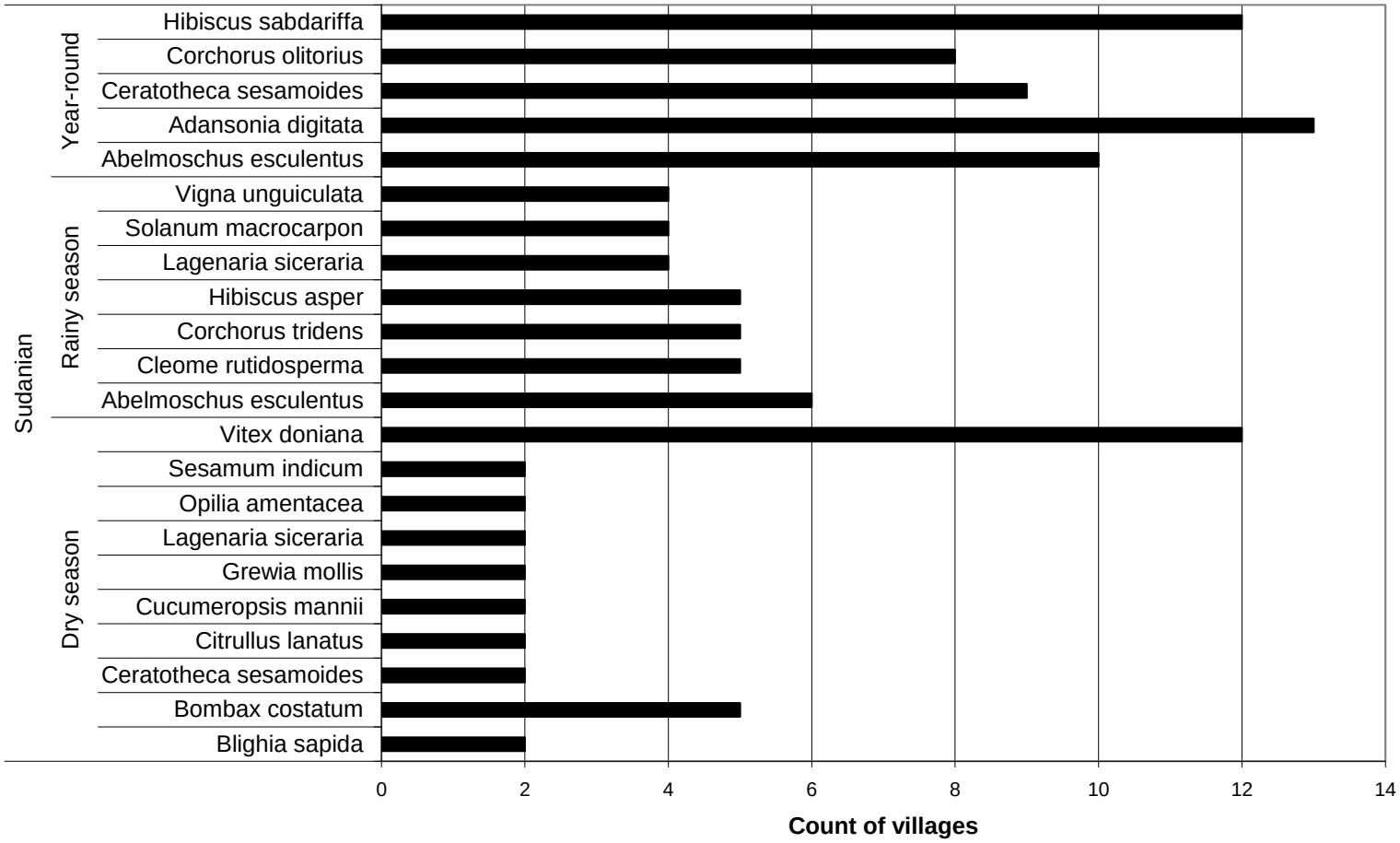

Figure 3.6: Top five frequently consumed traditional vegetables at different times of year in the Sudanian zone of Benin (village focus group data, n=16). The graph shows for different periods of the year the top five frequently consumed, traditional vegetables in 16 villages in the Sudanian zone of Benin.

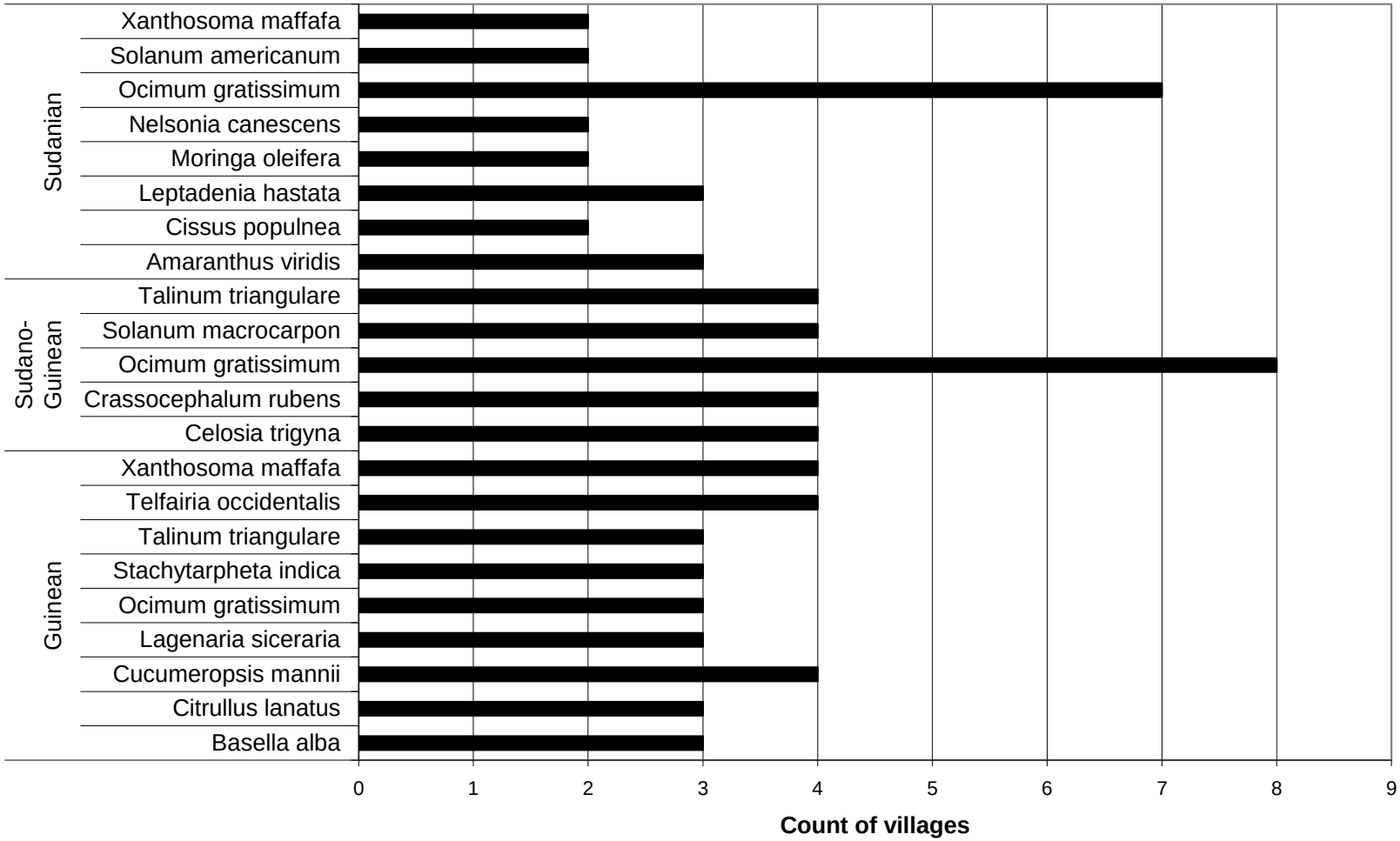

Figure 3.7: Top five occasionally consumed traditional vegetables in the Guinean (n=13), Sudano-Guinean (n=20), and Sudanian (n=16) zones of Benin (village focus group data). The graph shows the number of villages where each occasionally consumed species was recorded.

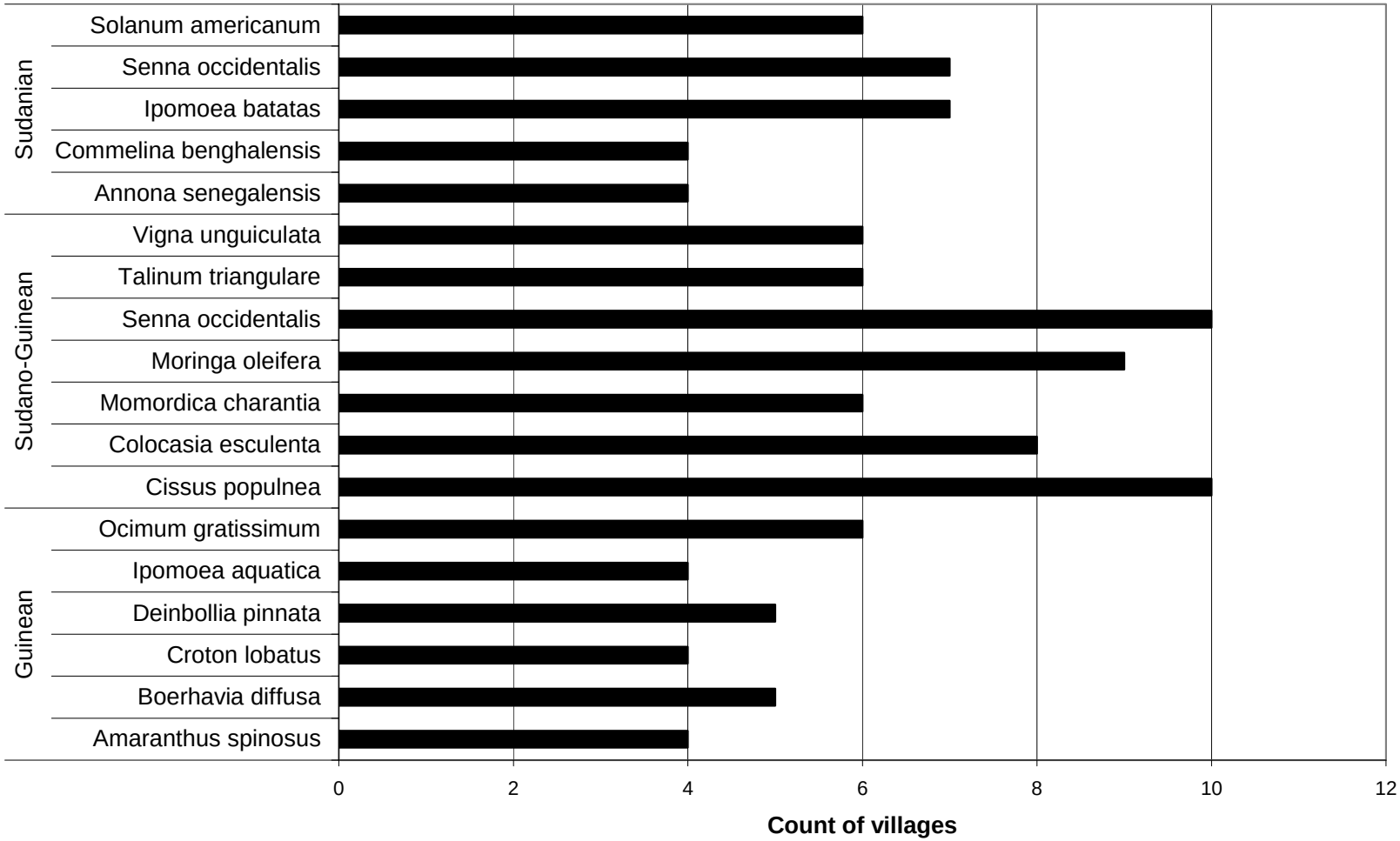

Figure 3.8: Top five rarely consumed traditional vegetables in the Guinean (n=13), Sudano-Guinean (n=20), and Sudanian (n=16) zones of Benin (village focus group data). The graph shows the number of villages where each rarely consumed species was recorded.

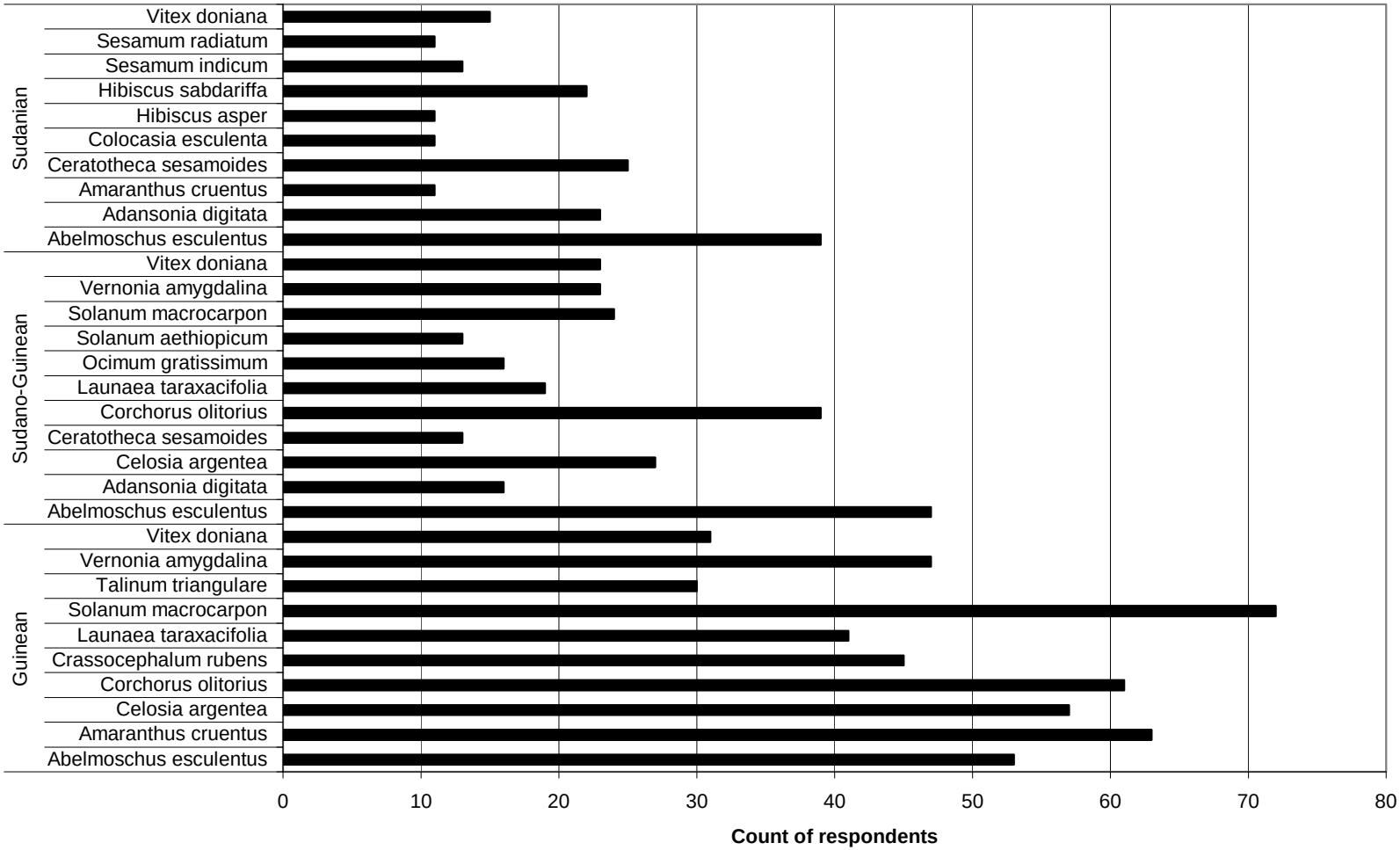

Figure 3.9: Most widely used traditional vegetables in the Guinean (eight villages), Sudano-Guinean (six villages) and Sudanian (four villages) phyto-geographical zones of Benin (individual questionnaire survey data, n=171). The graph shows the number of respondents using each species. Between 10 and 12 respondents per village were interviewed.

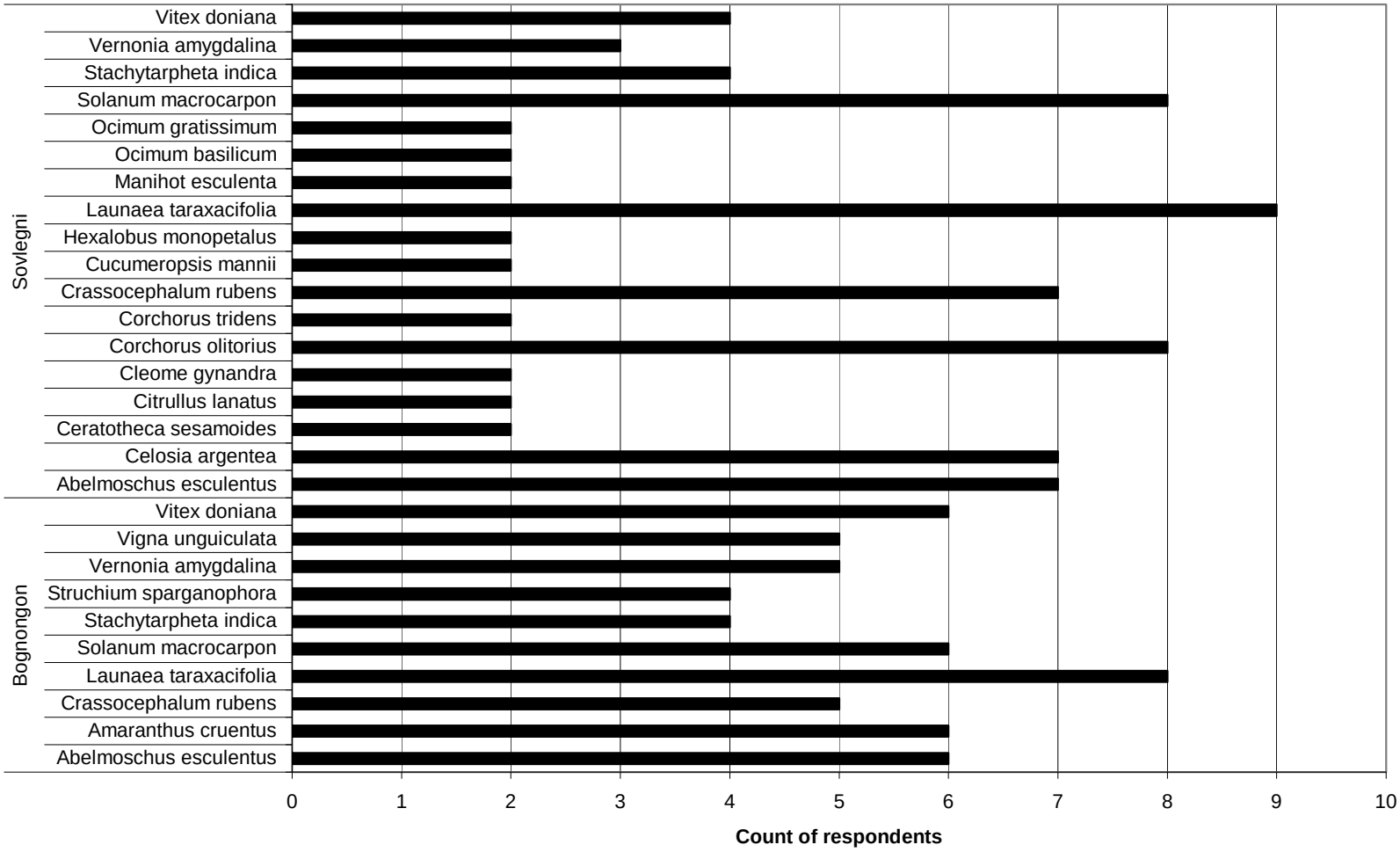

Figure 3.10: Top ten traditional vegetables in two Fon villages (individual questionnaire surveys). The graph shows the number of respondents using each species. Nine respondents were interviewed in each village. Bognongon is located in the Guinean and Sovlegni in the Sudano-Guinean climatic region.

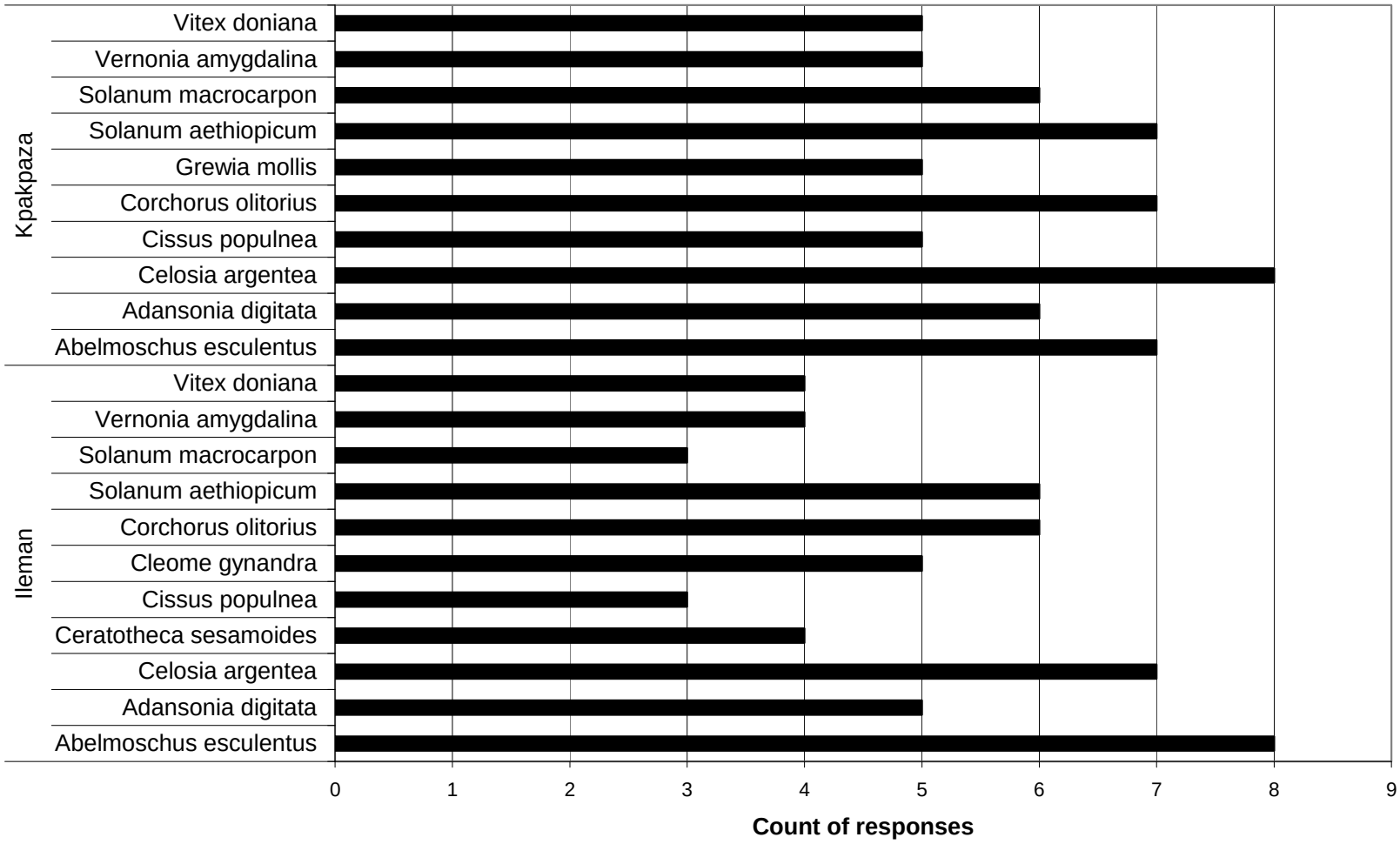

Figure 3.11: Top ten traditional vegetables in two Idatcha villages (individual questionnaire data). The graph shows the number of respondents using each species. Eight respondents were interviewed in Ileman and nine in Kpakpaza. Both villages are located in the Sudano-Guinean climatic region.

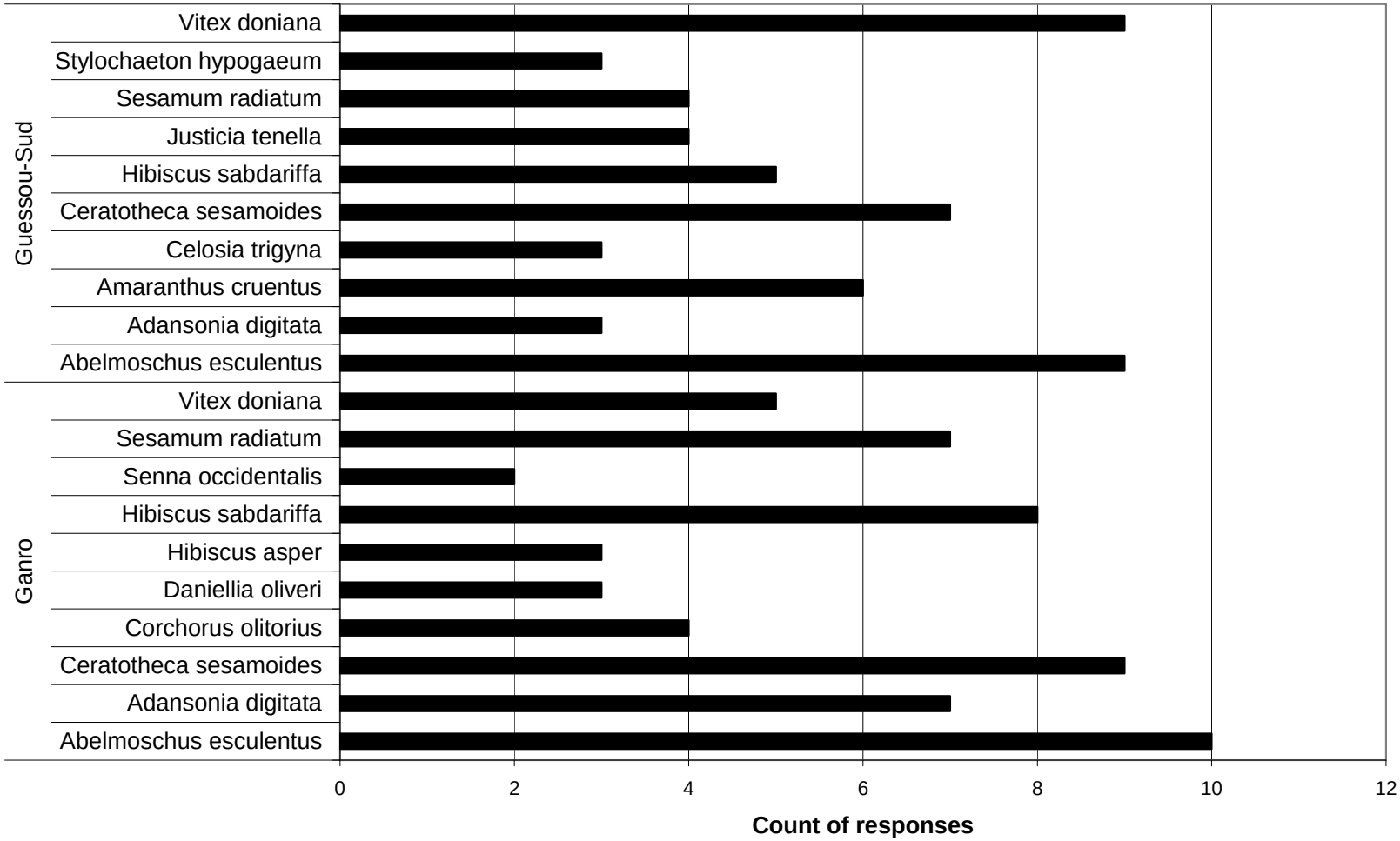

Figure 3.12: Top ten traditional vegetables in two Bariba villages in the Sudanian climatic zone (individual questionnaire surveys). The graph shows the number of respondents using each species. Ten respondents per village were interviewed, and both villages are located in the Sudanian climatic region.

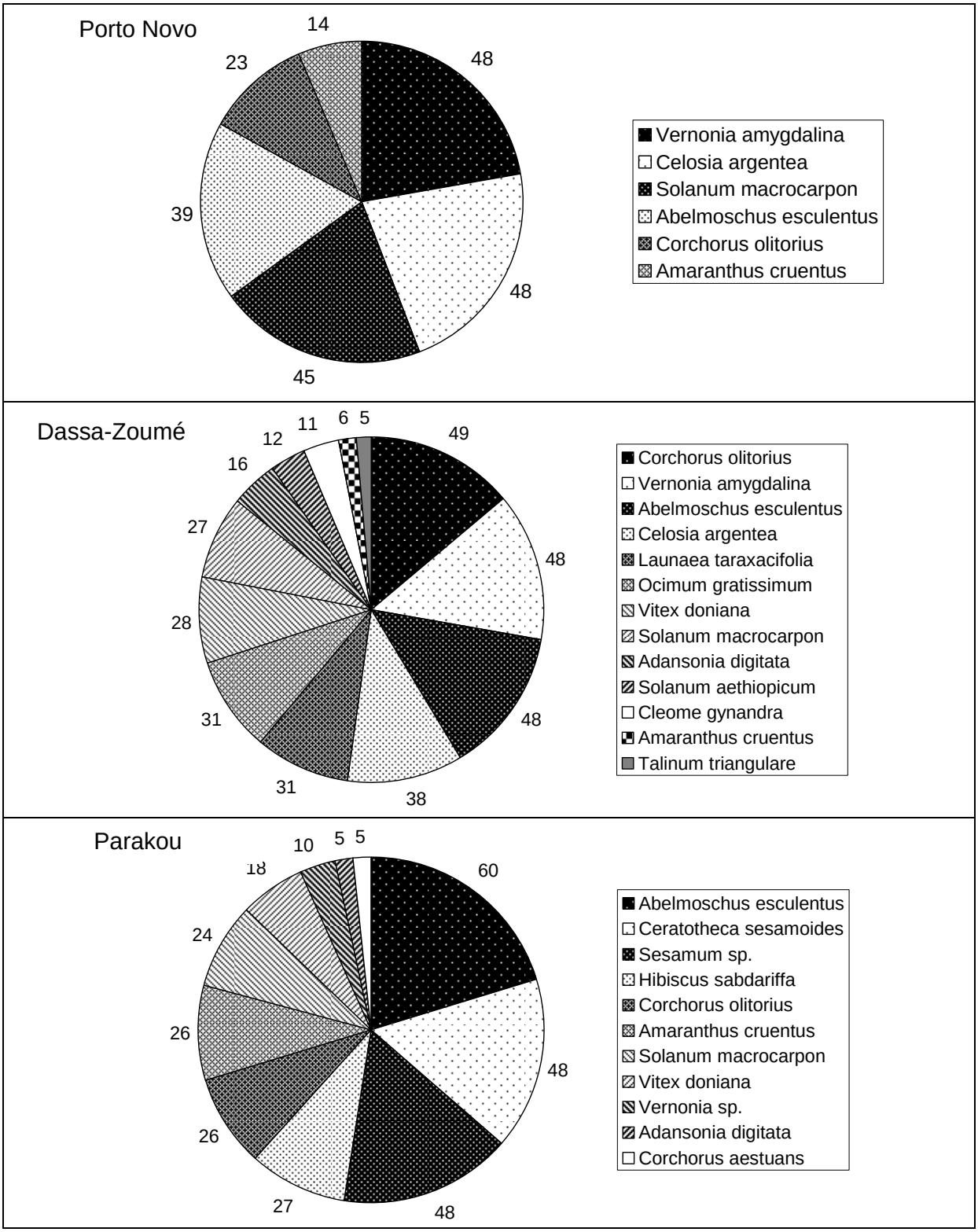

Figure 3.13: Most widely consumed traditional vegetables in Porto Novo (n=60), Dassa-Zoumé (n=59) and Parakou (n=60) (individual questionnaire surveys). The figures on the pie chart show the number of respondents using each species. Species with counts of less than five were excluded.

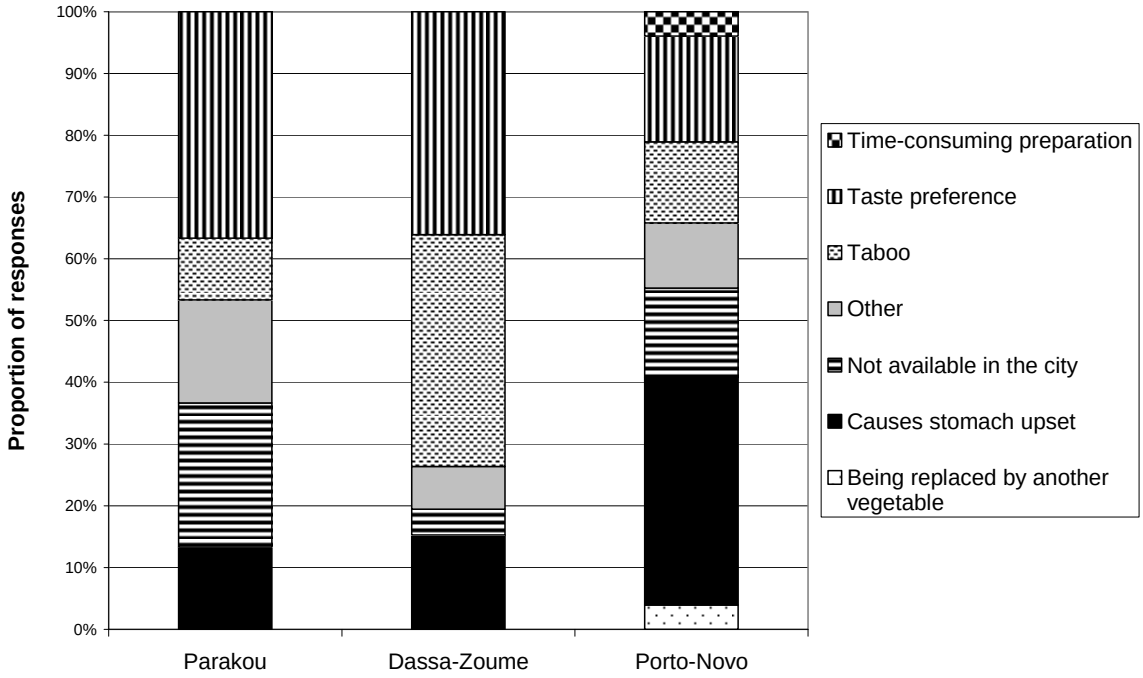

Figure 3.14: Main reasons (%) for non-consumption of certain traditional vegetables in Porto Novo (n=76), Dassa-Zoumé (n=72) and Parakou (n=35) (individual questionnaire surveys). The reasons for non-consumption of a wide range of species have been grouped together for each city. A single respondent could list more than one species, and therefore give multiple reasons. Overall, 35 reasons were given in Parakou; 72 in Dassa-Zoumè ; 76 in Porto-Novo.

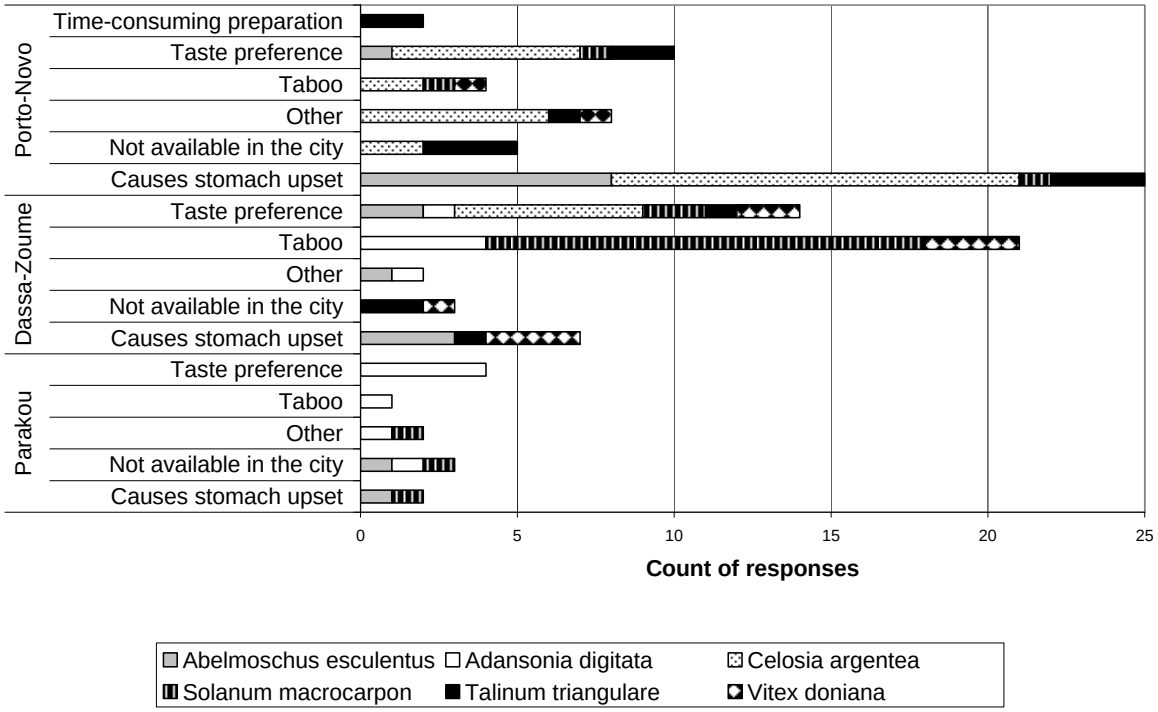

Figure 3.15: Main reasons for non-consumption of the six most widely cited traditional vegetables in three cities in Benin (individual questionnaire surveys).

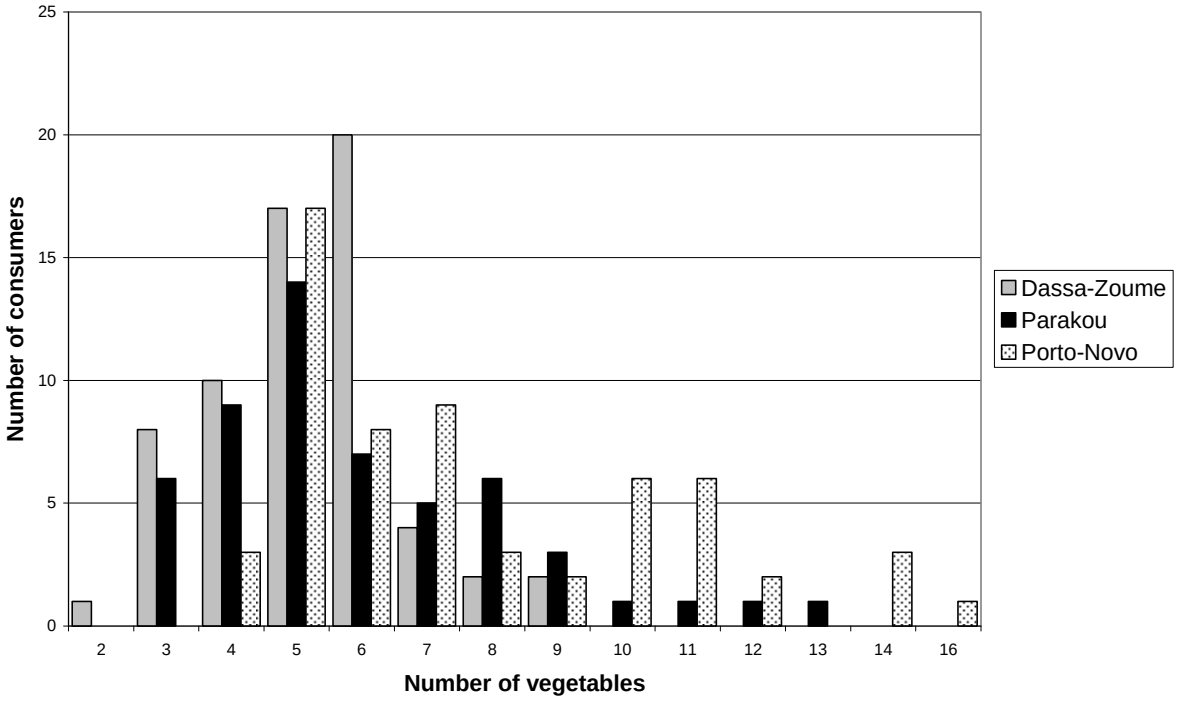

Figure 3.16: Overall number of vegetables used in a week in the high availability period by urban consumers in three cities in Benin (individual questionnaire surveys).

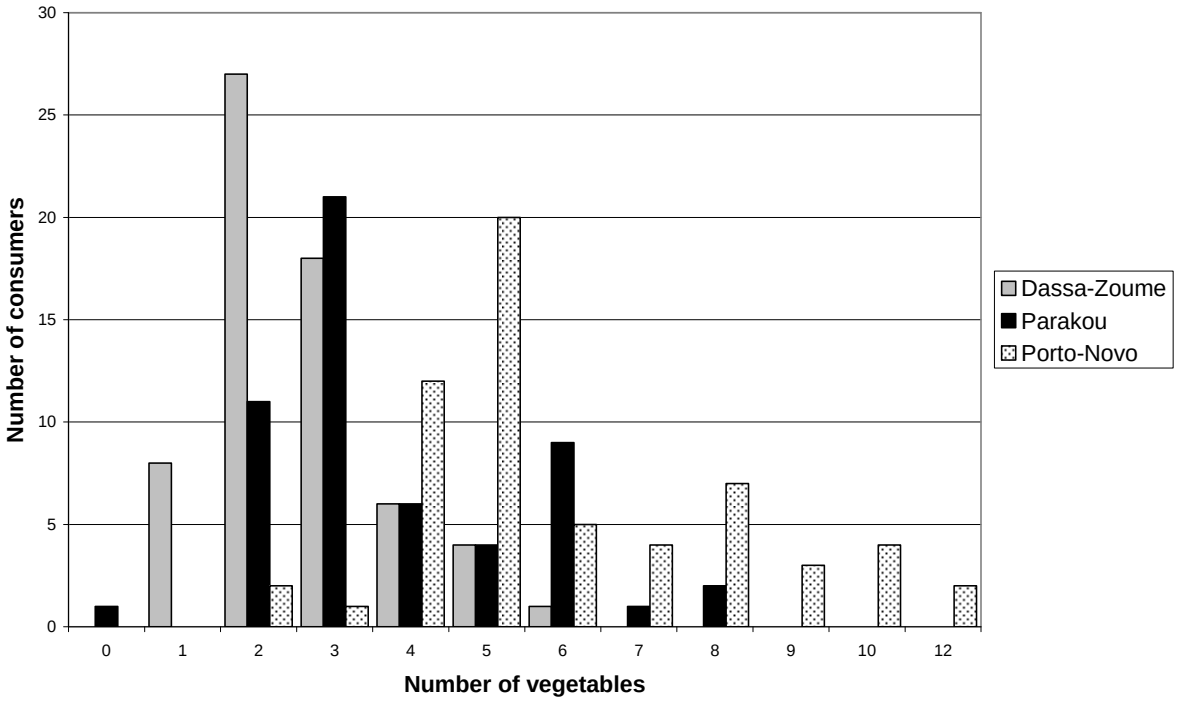

Figure 3.17: Overall number of vegetables used in a week in the low availability period by urban consumers in three cities in Benin (individual questionnaire surveys).

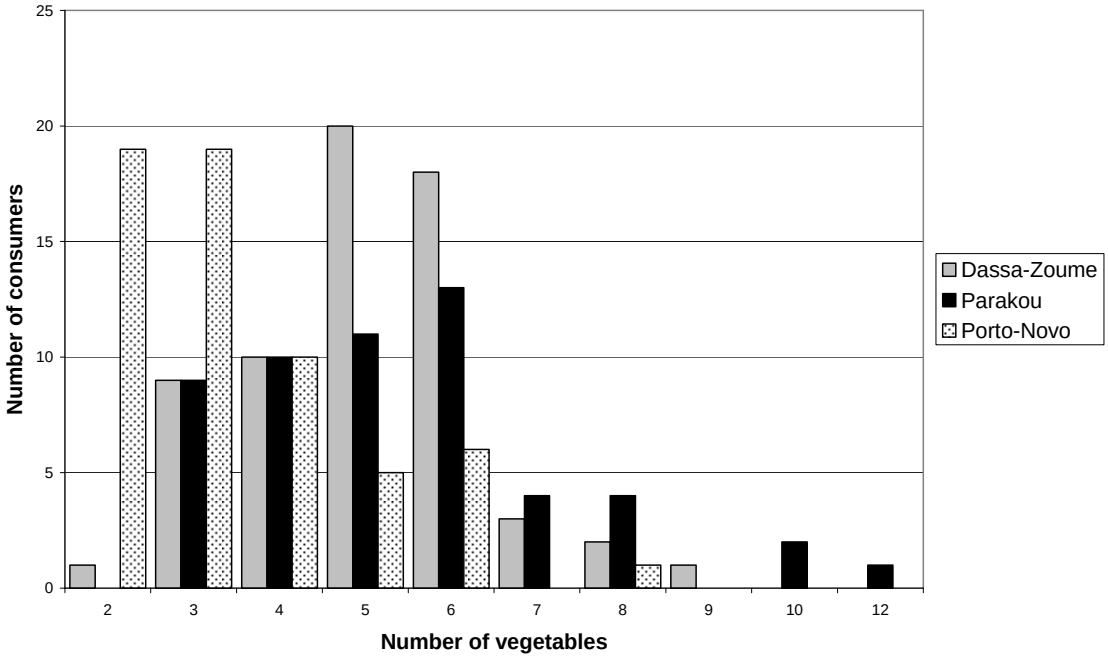

Figure 3.18: Number of traditional vegetables used in a week in the high availability period by urban consumers in three cities in Benin (individual questionnaire surveys).

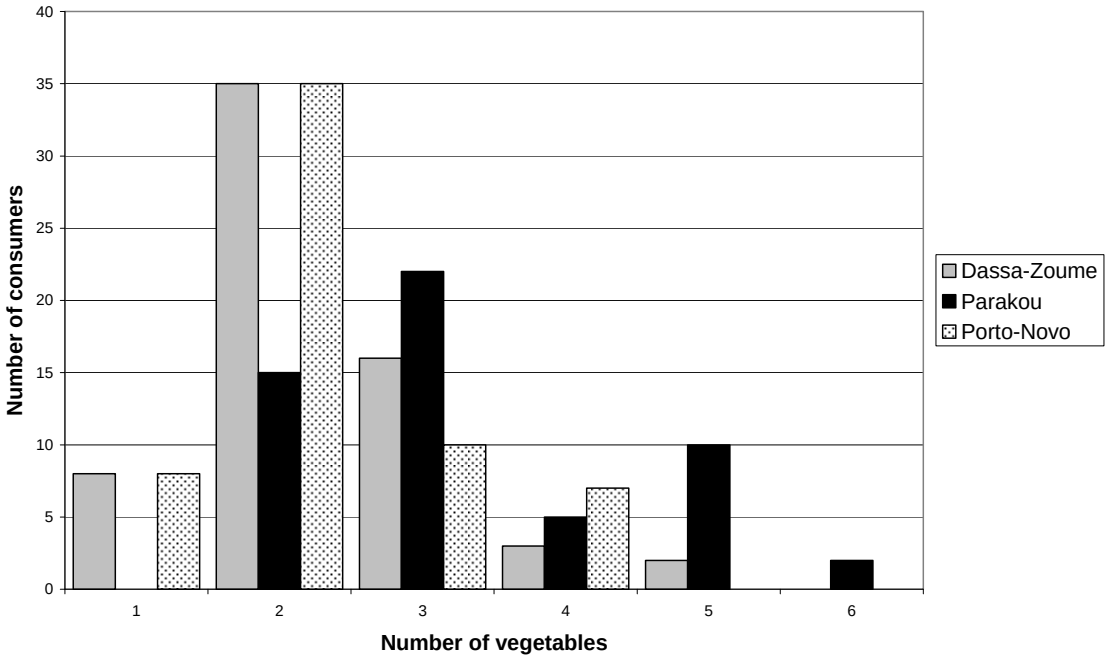

Figure 3.19: Number of traditional vegetables used in a week in the low availability period by urban consumers in three cities in Benin (individual questionnaire surveys).

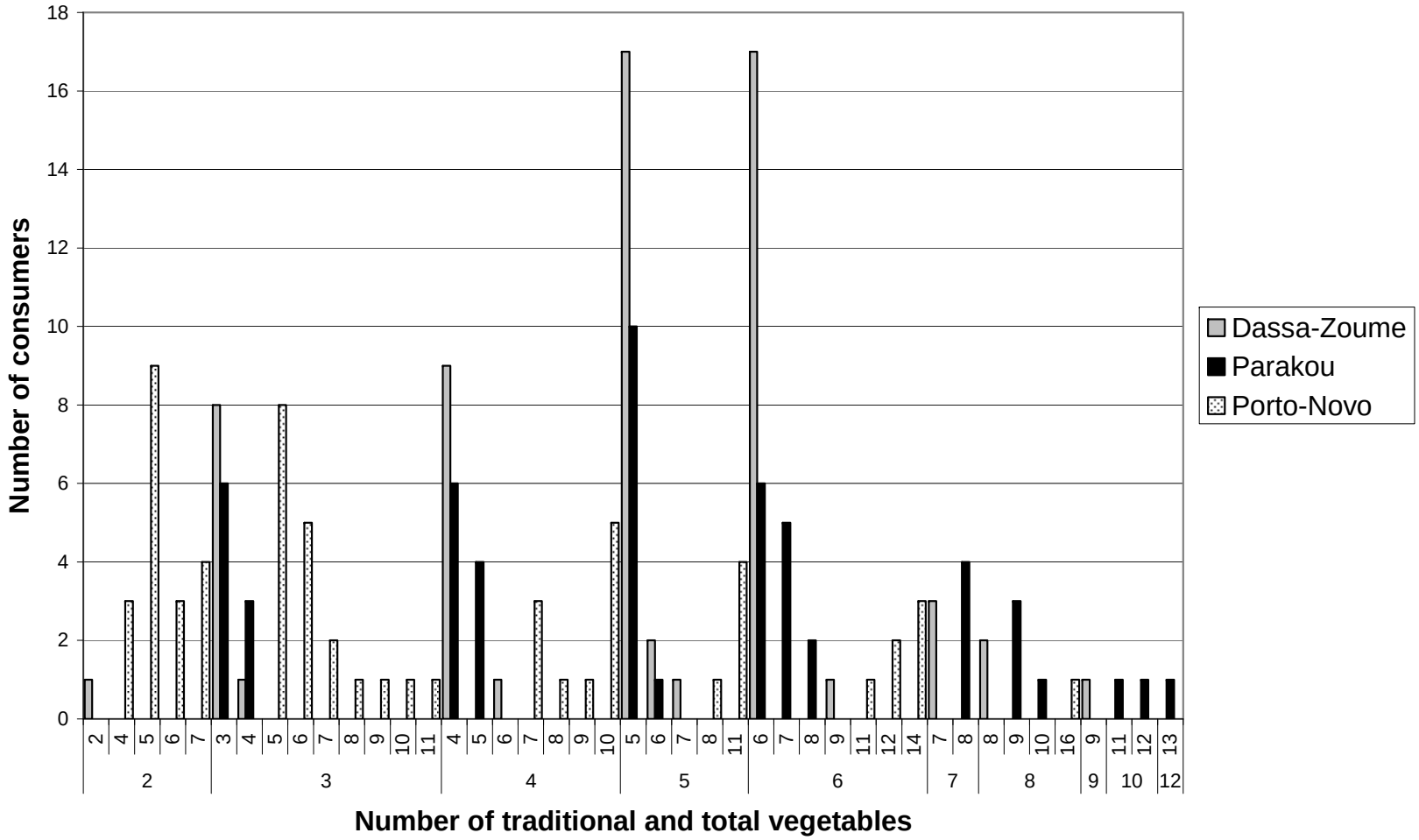

Figure 3.20: Number of traditional vegetables used in a week (upper number) by urban consumers in three cities in Benin in the high availability period in relation to overall vegetable diversity (lower number) (individual questionnaire surveys).

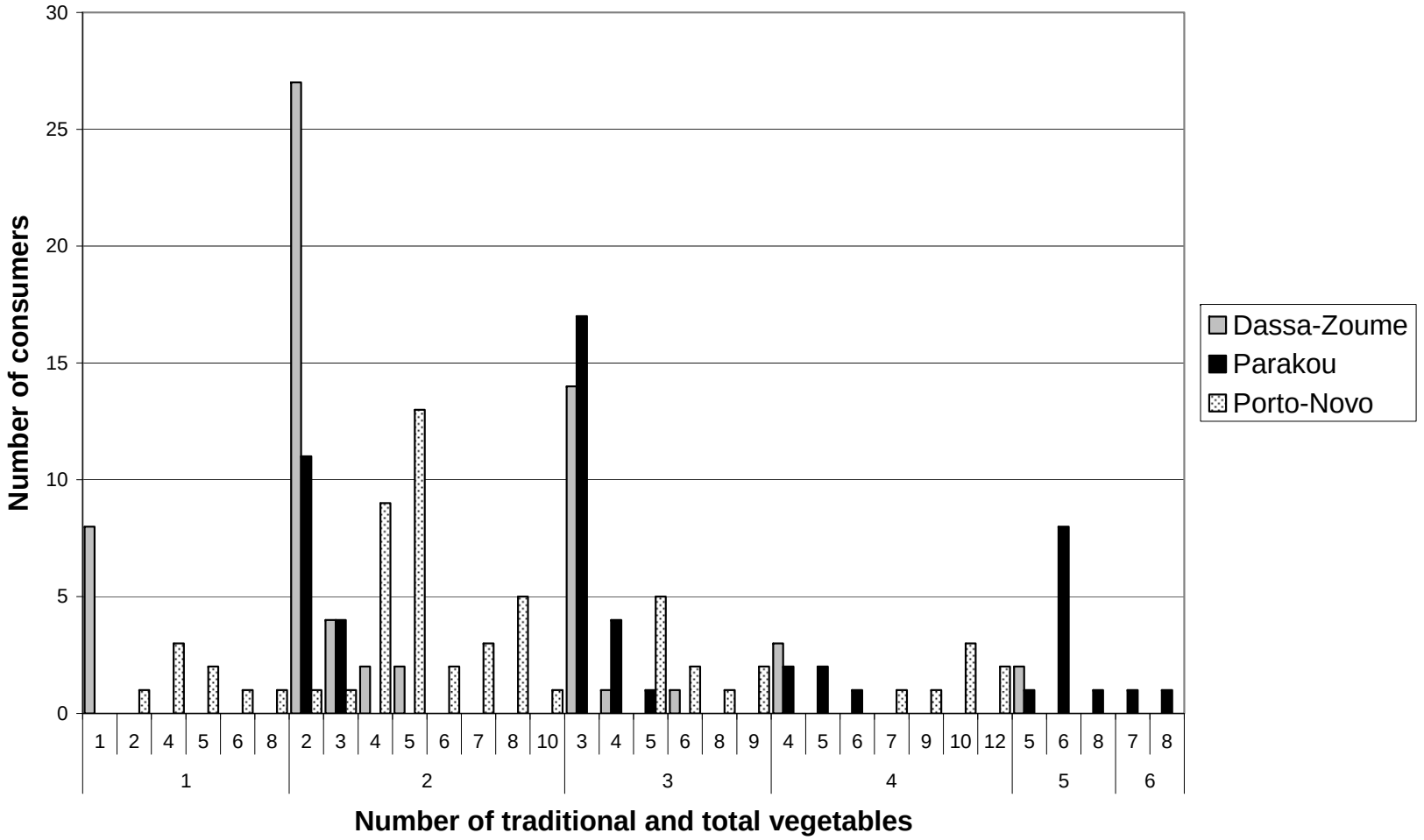

Figure 3.21: Number of traditional vegetables used in a week (upper number) by urban consumers in three cities in Benin in the low availability period in relation to overall vegetable diversity (lower number) (individual questionnaire surveys).

Chapter 4 – Medicinal properties and cultural importance of traditional vegetables in Benin

A Dansi, MW Pasquini & IK Deleke Koko

This chapter describes the medicinal properties of traditional vegetables and their cultural importance for communities in Benin. The information presented in this chapter is based on the Darwin Initiative 15/003 surveys (focus group data from rural areas and individual questionnaire data from urban areas) and the work by Dansi *et al*. (2008).

4.1. Medicinal properties

Many traditional vegetables consumed throughout the African continent are also used for various curative, regulating and stimulating properties and are sometimes used as nutraceuticals (Chweya and Eyzaguirre, 1999; Maundu *et al*., 1999, Shippers, 2000; Kimiywe *et al*., 2007; Smith and Eyzaguirre, 2007).

In Benin, the medicinal use of plant species was recorded through a national survey in the mid-1980s by Adjanohoun *et al*. (1985). More recently, Dansi *et al*. (2008) reported the following utilisations for species which were also used as vegetables:

- *Acmella oleracea* facilitates the elimination of blood clots in women after delivery;
- *Acmella oleracea* and *Ocimum gratissimum* treat intestinal worms and prevent post-delivery infection;
- *Adansonia digitata* regularises women's menstrual cycle and heart beat;
- *Adansonia digitata*, *Ceratotheca sesamoides* and *Sesamum radiatum* are said to facilitate weight gain and good growth, dentition and bone strengthening in children, if they are consumed regularly;
- *Basella alba* and *Heliotropium indicum* are used to cure sores;
- Soups of *Cissus populnea*, *Hibiscus sabdariffa* and *Lactuca taraxacifolia* are said to be aphrodisiac;
- *Cleome gynandra* is eaten by nursing mothers to stimulate milk production and regain blood lost during delivery;
- *Ehretia cymosa* is used in the case of stomach ulcer;
- *Grewia lasiodiscus* is used for stomach ache;
- *Grewia lasiodiscus* and *Hybanthus enneaspermus* are used to treat diarrhoea;
- *Hibiscus asper* for coughs and colds;
- *Hibiscus asper* and *Gymnanthemum amygdalina* for constipation;
- *Jatropha curcas* is used in cases of jaundice (icterus);
- *Lippia multiflora* regulates blood pressure;
- *Momordica charantia* for vomiting;
- *Moringa oleifera* is regularly consumed by pregnant women to prevent anaemia;
- *Moringa oleifera* and *Ocimum gratissimum* are used in the treatment for diabetes;
- *Senna occidentalis* is used in cases of anemia, smallpox (variola) and chickenpox (varicella).

The survey carried out under the auspices of the Darwin Initiative 15/003 surveys recorded medicinal use for 159 species across 49 villages. However, medicinal attributes were mentioned only once in the case of 85 species, and only 29 species had medicinal attributes recorded in five or more villages. The ten most reported medicinal plants for the Guinean, Sudano-Guinean and Sudanian phyto-geographical zones are presented in Figure 4.1.

Table 4.1 shows the number of species which were used for medicinal purposes relative to the overall number of species recorded for each village. This highlights how even within the same socio-linguistic group the recognition of medicinal virtues in the local vegetables can differ quite significantly. For example, the Holly village of Zalimey reported medicinal use of only two species out of the 40 that they could describe, whereas in the village of Ayetedjou 18 out of 42 had reported medicinal uses. The uses can vary quite a lot from group to group, although certain species are used in specific ways by many groups. For example, *Ocimum gratissimum* is widely used for the treatment of infections, *Vernonia amygdalina* to improve lactation and to regain blood lost during delivery, and *Moringa oleifera* (by groups in the south) to treat headaches.

Information on the medicinal uses of traditional vegetables from the individual questionnaires in the cities is relatively limited. Information was shared on 18 species in total, and those mentioned most frequently comprised *Abelmoschus esculentus* (33 responses), *Vernonia* sp. (primarily *V. amygdalina* – 29 responses), *Ocimum gratissimum* (14 responses), *Amaranthus cruentus*, *Ceratotheca sesamoides* and *Corchorus olitorius* (8 responses each). The identification of these species as medicinal was often city-specific, and linked to what was being consumed (Figure 3.9). Most respondents attributing medicinal properties to *A. esculentus*, *A. cruentus* and *C. sesamoides* were located in Parakou; those describing the medicinal properties of *O. gratissimum* in Dassa-Zoumè; and those of *V. amygdalina* in Porto Novo and Dassa-Zoumè (data not shown).

The reported medicinal attributes of these species were varied. In the cities, there did not appear to be any strong consensus on the benefits of each specific species (data not shown), except for *Vernonia amygdalina*, where over a third of the responses claimed that it was used to clean the womb of blood after delivery. Its other uses included treatment of stomach ailments, as an appetite-stimulant and treatment against malaria and typhoid fever.

The broad categories of ailments treated with, or perceived health benefits accruing from the use of traditional vegetable species in the three cities are shown in Figure 4.2. The digestive system complaints consisted mostly of stomach ache, worms or indigestion; the disease category comprised primarily malaria and typhoid fever; the women's health category included remedies to cleans the womb after delivery or builds up the energy of pregnant or newly delivered women; the blood system category referred to various 'blood' boosting properties or treatment of anaemia; and finally the other category covered multiple benefits including combating fatigue and boosting energy levels and treating headaches and tension.

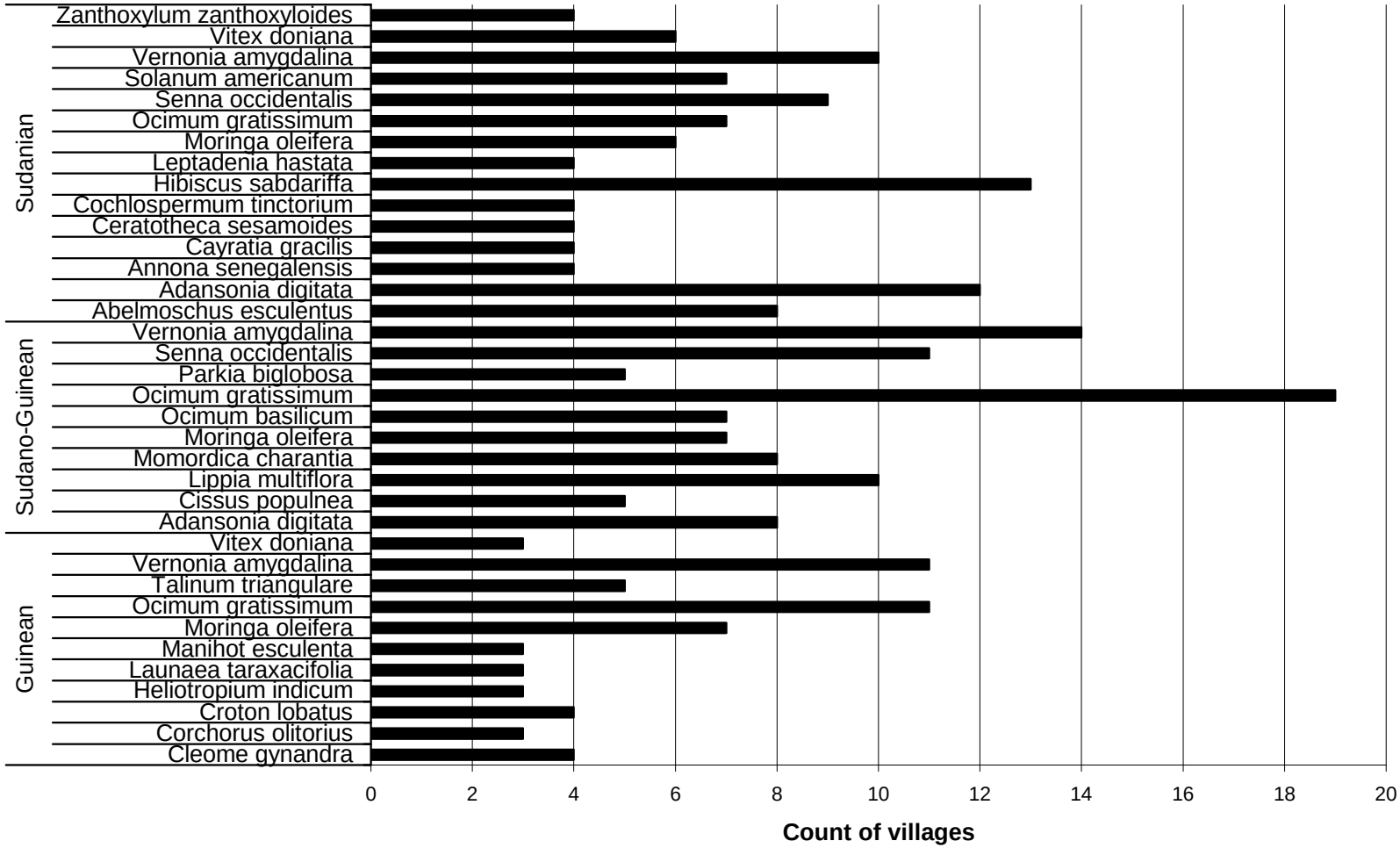

Figure 4.1: Top ten traditional vegetables used for medicinal purposes in the Guinean (n=13), Sudano-Guinean (n=20), and Sudanian (n=16) zones of Benin (village focus group data).

Table 4.1: Total numbers of traditional vegetables used for medicinal purposes in 49 villages in Benin

Main socio-linguistic group	Village	Total number of traditional vegetables used for medicinal purposes in each village†	Main socio-linguistic group	Village	Total number of traditional vegetables used for medicinal purposes in each village†
Adja	Afomayi	16 (38)	Gourmantché	Batia	10 (45)
	Agnavo	7 (38)		Loumbou-loumbou	7 (21)
Aizo	Agbandonou	7 (39)		Tanongou	16 (40)
	Gbeko	13 (31)	Fon	Bognongon	5 (43)
	Gome	6 (35)		Sovlegni	10 (40)
Anii	Barikini	21 (46)	Holly	Akpate	4 (35)
	Kodowari	7 (40)		Ayetedjou	18 (42)
	Penelan	7 (26)		Zalimey	2 (40)
	Wellan	26 (42)	Idatcha	Ileman	12 (42)
Bariba	Banigri	12 (37)		Kpakpaza	8 (39)
	Dabou	7 (37)	Ifè	Ekpa	12 (38)
	Ganro	12 (40)		Tamba	11 (33)
	Keremou	13 (19)	Kotokoli	Akarade	7 (35)
	Kpassa	12 (35)		Tchimberi	23 (62)
	Poto-Poto	16 (22)	Mahi	Mondji	9 (43)
	Soubado	13 (29)		Vossa	16 (34)
	Tankougou	6 (27)		Zonmon	5 (36)
	Zougou-Pantrossi	13 (30)	Otammari	Moupemou	16 (41)
Boko	Bensekou	19 (41)		Tagaye	9 (49)
	Mareguinta	5 (32)	Ouémè	Gogbo	8 (30)
Cotafon	Assedji	15 (46)	Tchabè	Ikemon	12 (36)
	Sohounme	19 (42)		Okunfo	11 (40)
Dendi	Kargui	3 (23)	Waama	Cotiakou	12 (39)
	Torozogou	8 (22)		Pouya	14 (52)
Dendi/ Djerma	Garou-Tedji	7 (11)			

† The figures in brackets indicate the total number of traditional vegetables as per the local community's taxonomy. It should be noted that certain species were recorded more than once when communities gave two or more local names, describing for example, different varieties or the use of different plant parts. In these instances, one local name could be associated to medicinal use, and the other not.

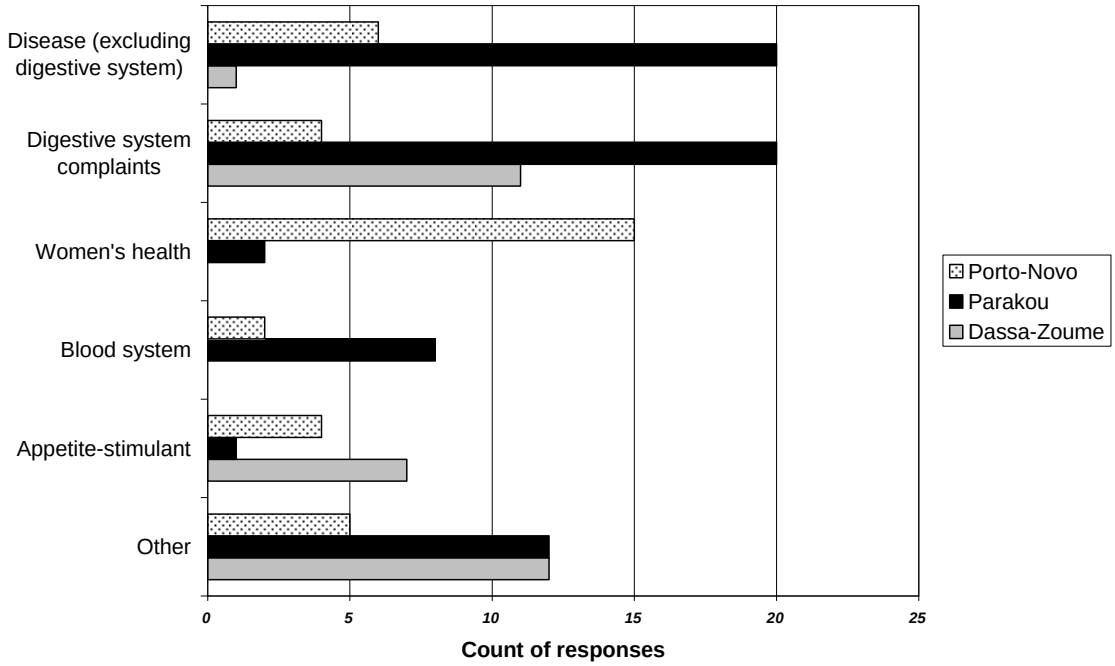

Figure 4.2: Broad categories of ailments treated with or health benefits accruing from the use of traditional vegetables species in Porto Novo (n=36), Dassa-Zoumè (n=31) and Parakou (n=63) (individual questionnaire surveys).

4.2. Cultural significance

In Benin, certain traditional vegetables may be part of important dishes presented during the celebration of marriages, births or funerals. Examples given during the Darwin Initiative 15/003 survey questionnaires included *Abelmoschus esculentus*, *Sesamum radiatum* and *Corchorus olitorious*.

The avoidance of certain species can have also a cultural significance that goes beyond taste or habit. Figure 3.10 shows that in certain locations there may be widespread taboos against specific vegetables. Fetishism (traditional religion), which is commonly practiced in Benin, can be one cause. A number of species may be prohibited to the followers of certain deities, perhaps because they are used during the rituals or they have other important associations. For example, Dansi *et al*. (2008) have reported that *Ipomoea aquatica* is prohibited to the followers of the divinity Dan, *Solanum nigrum* for the followers of Hèviosso, *Corchorus tridens* and *Launaea taraxacifolia* for the followers of Sakpata.

However, none of the city respondents from the Darwin Initiative 15/003 survey clarified the nature of the taboo. The whole survey elicited very little information on the ritual uses of traditional vegetables from individual respondents, except in the villages of Assedji, Sohounme, Gbeko and Tchakalakou. This kind of information is recognised as being hard to collect (see for example, Given and Harris, 1994, or Minnis, 2000), so it is difficult to infer any conclusions about ritual use from the research. However, in the village of Assedji four species were clearly associated with fetishism: *Launaea taraxacifolia* (prohibited to the followers of Hèviosso), *Cleome gynandra* and *Sida acuta* (prohibited to the followers of Aguessi) and *Solanum macrocarpon* (prohibited to Tohossou). In Sohoume *Launaea taraxacifolia*

was reported to be banned to followers of Hèviosso and Dan. In Gbeko *Corchorus olitorious* was used in a ritual related to the Tohossou.

Taboos may also be related to individual and family histories. In cases where an individual links an adverse health reaction to the consumption of a particular species, for example, this can then become a taboo plant for his or her descendants.

The perception that specific species can cause or aggravate illnesses, or weaken the body was found to be common. An example of this was observed in the village of Ayetedjou, where respondents consume *Crassocephalum crepidioides* but not *Crassocephalum rubens*. The common perception is that the latter causes a fever, and convulsions in children. Dansi *et al*. (2008) report that in the south-western part of Benin and particularly within the Adja, Cotafon and Saxwè socio-linguistic groups, it is believed that a patient affected by measles should never eat *Bidens pilosa* since this may aggravate the sickness. In the north-west, the soup of *Ceratotheca sesamoides* is avoided by hunters because it is thought to reduce visual acuity as well as interfere with occult forces, reducing their supernatural powers needed for successful forays.

In other cases, species can have positive socio-cultural characteristics, for example be used to ward off bad luck (e.g. *Sesamum indicum Solanum americanum*, *Solanum turvum*, *Launaea taraxacifolia* and *Talinum triangulare*).

Understanding what motivates people to avoid different species, or how these may be used in ceremonies and rituals, is certainly an area which deserves further research attention. There may be important implications around belief and behaviour for development efforts to promote specific species. Research to date seems only to have addressed these issues through rapid surveys where teams of enumerators and researchers have spent only short periods of a few hours or days in each location. Evidence from ethnobotanical work in other African countries has shown that this kind of sensitive information often remains secret to particular sections of society or to particular associations and groups. Information which is volunteered is usually offered in response to more careful ethnographic research methods, and may be limited to particular activities or to particular species. It is probable that much remains to be understood on this particular aspect of traditional vegetables.

Chapter 5 – The production and commercialisation of traditional vegetables

F Assogba Komlan

This chapter provides an overview of the main production systems of traditional vegetables, and reviews available data on their commercialisation. It is interesting to remind the reader that of the 245 species recorded by the Darwin Initiative 15/003 surveys only 17% were cultivated, and 9% appeared to be undergoing a process of "domestication" (reported as wild in certain villages, and cultivated in others).

5.1 Production systems

The production of traditional vegetables in rural areas is mainly the domain of women both in the rainy and in the dry season. In urban and peri-urban areas, where the activity takes on a commercial orientation men may also be heavily involved. A recent study showed that in Cotonou, for example, hardly any women were involved in the production of traditional vegetables (Pasquini *et al*., 2009).

Four main production systems can be found:

- Year-round home garden production;
- Rain-fed on-farm production;
- Intensive irrigated production;
- Low-land production.

Year-round production in home gardens is found mainly in rural areas, on a small scale, to supply household vegetable food needs, and secondarily for medicinal purposes. The species found in the home gardens may have been produced by direct sowing or may have been collected as young seedlings in the surrounding countryside and transplanted. There are no specific inputs, though domestic waste and household waste water may be applied. As was found in the course of the Darwin Initiative 15/003 surveys, the diversity of species in the home gardens of certain socio-linguistic groups can be quite high, for example, amongst the Holly in the south-east of the country, or the Anii in the north on the border of the forest areas. Examples of species which can be found typically in home gardens include *Telfairia occidentalis, Cucurbita* spp, *Acmella oleracea, and Ocimum* spp.

Production on-farm under rain-fed conditions is widespread throughout the country. The vegetables may be produced in single stand, but most of the times they are intercropped with other crops. In the latter case, the vegetables are generally destined for household consumption, and only the surplus is sold. Maize (*Zea mays*), cassava (*Manihot esculenta*), sorghum (*Sorghum bicolor*), tomato (*Solanum lycopersicum*) and pepper (*Capsicum* spp) are intercropped with *Amaranthus cruentus, Solanum* spp. and *Cleome gynandra*, in combinations which vary from region to region. In the centre and the north, yam (*Dioscorea* spp) is often associated with *Solanum* spp. and pepper and tomato, whereas in the south-west, *Corchorus olitorius* is usually intercropped with cassava and maize.

The morphology of the vegetable will influence the decision to produce in pure or intercropped stands. Vegetables with large leaves or which are creeping or climbling, are

rarely intercropped with main food crops, because they inhibit their development. In these cases, it is more common to find that they are rotated with other crops, for example, the cucurbit species *Citrullus lanatus* and *Lagenaria siceraria* (known locally as *egusi*) are planted after maize, yam, cassava, or cotton (*Gossypium* spp) crops (Darwin Initiative 15/003 surveys).[10] The vegetable crops produced under this system benefit from the residues left over from the input applications to the preceding crops or from the fertilization effect of the creeping crop. However, yields are low to medium (depending on the soil status) compared to the high-input vegetable production systems.

It should be noted that certain wild species, such as *Talinum triangulare* and *Launaea taraxacifolia* may be found growing as weeds on farm plots in the Plateau area or in certain low-lying flood lands at the beginning of the rainy season, having sprouted from wind-borne seeds. In these cases, farmers may choose to preserve the species, weeding around it, or transplanting the seedlings in their home garden. They may choose to maintain certain plants until flowering, so as to collect the seed which is immediately spread in a corner of the farm. Long-term dormancy of the seed is often impossible to break, and in these cases the only way to perpetuate the species is through vegetative propagation, through stem or root cuttings.

High-input, intensive irrigated vegetable production systems are mostly found in urban and peri-urban production locations, and are dominated by a limited number of widely consumed species, such as *Solanum marcrocarpon, Amaranthus cruentus, Ocimum gratissimum* and *Vernonia amygdalina,* which have a high market value in the dry season. These species are often produced in pure stands on plots which vary from 6 m² to 18 m² in size as one moves from urban to peri-urban production sites (Assogba Komlan *et al.*, 2007). However, intercropping of fast-maturing species with slow-maturing species can also take place, for example *Amaranthus cruentus* is commonly found in association with *Solanum marcrocarpon, Vernonia amygdalina, Lactuca sativa,* or *Brassica oleracera*. This is done to optimise use of scarce land resources, to assure a regular supply of vegetables to the market, and amongst poorer farmers to generate some revenue with which to continue purchasing inputs to tend the slower-maturing species (Pasquini, 2002, reports a similar logic for intercropping vegetables in urban and peri-urban production sites on the Jos Plateau in Nigeria). Yields of leafy vegetables under these production systems are high (in some cases over 20 t/ha) because of the regular application of fertilizers and pesticides, and of irrigation. However, farmers tend not to be very knowledgeable about the rational use of soil fertility and crop protection.

Traditional vegetables are also produced on low-lying flood lands. In these areas, production can start once the rains finish and the flood water starts withdrawing. The flood water will bring nutrients, but it can also carry pests and diseases from other areas. Yields are medium, compared to the high-input irrigated production areas. Certain areas, with an assured market, specialise in the production of specific species, which are produced under single stand conditions. This is the case of the Ouémé Valley with species such as *Celosia argentea, Amaranthus cruentus*, and *Solanum marcrocarpon*, and the Mono Valley in the periurban area of Lokossa with *Corchorus olitorius*.

Various harvest methods are observed, both in rural and urban areas, depending on whether the species is herbaceous or woody. Woody species are harvested in the following ways:

[10] Though they can be found intercropped together (Achigan Dako et al. 2008b).

- Harvest of the first branches below the stem to favour the regeneration of shoots with young leaves.
- Harvest of young shoots at the top of the tree (e.g. *Vitex doniana*).
- Topping of the species at the beginning of the rainy season to favour the regrowth of shoots during that rainy season.

Herbaceous species are harvested in the following various ways:

- Only the branches are harvested in various rounds, so that the main plant is preserved for the production of seed. For certain annual species, such as *Amaranthus cruentus* and *Solanum macrocarpon* it is recommended not to cut the stem too low to the ground because this can prevent their regeneration.
- Uprooting the whole plant at a young age.
- Harvest of the leaves only, and later on the whole plant regenerates from the roots. Seeds of these species are not usually viable because of various abiotic factors which influence the germination (the seasonality, the climate, the soil).

Production statistics for traditional vegetables in Benin are virtually non-existent and in the rare cases where data exist, they are usually not disaggregated by species. According to Mbaye and Renson (1997) the production of traditional leafy vegetables during the season 1995-1996 was estimated by the Ministry of Rural Development at 55,000 tonnes. Hounkpodoté and Tossou (2001) reported that the production of *Solanum macrocarpon* and *Amaranthus cruentus* in Cotonou increased between 1995 and 2000 from 813 to 1,668 tonnes and from 672 to 1,512 tonnes, respectively. This is an area which requires further attention.

5.2 Commercialisation of traditional vegetables

Traditional vegetables have the potential to contribute quite substantially to the income of households involved in vegetable production, as work from the West African region shows. Abasse *et al* (2007) found that producers of traditional vegetables in the regions of Maradi and Dosso obtained 20-30% of their annual income from these vegetables. And in the region of Tillabery income from the traditional vegetables could be more than 50% of total income. In particular, producers of *Corchorus olitorius*, which is exported in large quantities to Mali, could have annual revenues higher than USD 1,000.

Work in Benin also shows the profitability of traditional vegetables. A study carried out by Agossou *et al.* (2001) shows that the production of *Vernonia amygdalina* in the dry season can generate a margin of 7 550,000 FCFA[11] per hectare. However, *Abelmoschus esculentus* produced under extensive production at Zogbodomey gives a much lower margin of only 67,200 FCFA per hectare. In Cotonou, a survey by Sodjinou and Assogba Komlan (2008) showed that the gross margin per m² for *Corchorus olitorius, Ocimum gratissimum, Vernonia amygdalina, and Solanum macrocarpon* is between 120 to 177 FCFA. Vodouhè (2008) reports that the sale of *Vitex doniana* leaves can bring a gross monthly revenue of 10,000 to 30,000 FCFA.

The commercialisation of traditional vegetables in Benin is primarily dominated by women under 30 years of age in rural areas, and rarely over 40 in urban environments

[11] The exchange rate of the FCFA used is 655.957 to 1 Euro.

(Akplogan *et al.*, 2007). Women traders are involved at all stages of the chain, from collectors at the level of the farm plots to retailers in local and regional markets (Levasseur *et al*., 2007).

The main traded vegetables are cultivated species, however, certain wild species are also widely marketed (e.g. *Vitex doniana*). Figure 5.1 shows the top ten vegetables traded by rural villages located in each phyto-geographical zone. Overall, the most widely traded vegetables for the whole of the country are *Amaranthus cruentus, Abelmoschus esculentus, Corchorus olitorius, Solanum macrocarpon*, *Vernonia amygdalina, Vitex doniana*, *Citrullus lanatus, Ceratotheca sesamoides, Adansonia digitata,* and *Hibiscus sabdariffa*. However, there are hardly any reliable statistics on the volumes and prices of vegetables traded in the country (Agossou *et al.*, 2001)

In general terms, the amounts of traditional vegetables sold vary by location and by season. In rural areas the availability of traditional vegetables is very high during the rainy season (from June to December) and low in the dry season (Agossou *et al.,* 2001). Woody species (e.g. *Adansonia digitata* and *Vitex doniana*) are the most widely found on local markets.

In urban and periurban production sites, and in low-lying flood lands, vegetable availability is quite high during the dry season, and this is reflected on local markets, nevertheless, supply does not meet demand. However, there can be variations depending on the species. In southern markets, the availability of *Amaranthus cruentus* and *Solanum macrocarpon* varies very little during the year. On the other hand *Corchorus olitorius* and *Vernonia amygdalina* fluctuate during the year, being at their highest during the rainy season (May to October), and at their lowest in January to April. From October to January when supply would normally decline because of the onset of the dry season, in urban areas in the south, supply is actually maintained because of production from the low-lying flood lands. Traditional vegetables are more available in periurban markets compared to urban markets. These seem attributable to consumer demand and preference for these vegetables.

The supply chains can vary from location to location. In most cases, producers sell their produce on to wholesalers, who in turn sell it on to retailers. In areas of large-scale production, collectors may be found between the producers and the wholesalers. However, in urban areas, retailers may purchase directly from urban production locations, without intermediaries. Akplogan *et al*. (2007) report that traders rarely collaborate in terms of exchanging prices and information. Though each retailer tends to have regular suppliers (either wholesalers or sometimes farmers) there are no written contracts. However, if a retailer supplies a restaurant or a hotel then a formal contract is developed.

A price analysis of traditional vegetables shows that the highest prices are obtained in urban and periurban areas (Akplogan *et al.*, 2007), and that prices vary according to seasonality. The highest prices are obtained during the dry season when supply is exclusively from areas under irrigation or from low-lying flood lands (Agossou *et al*., 2002; Akplogan *et al*. 2007; Matlhare *et al*., 1999).

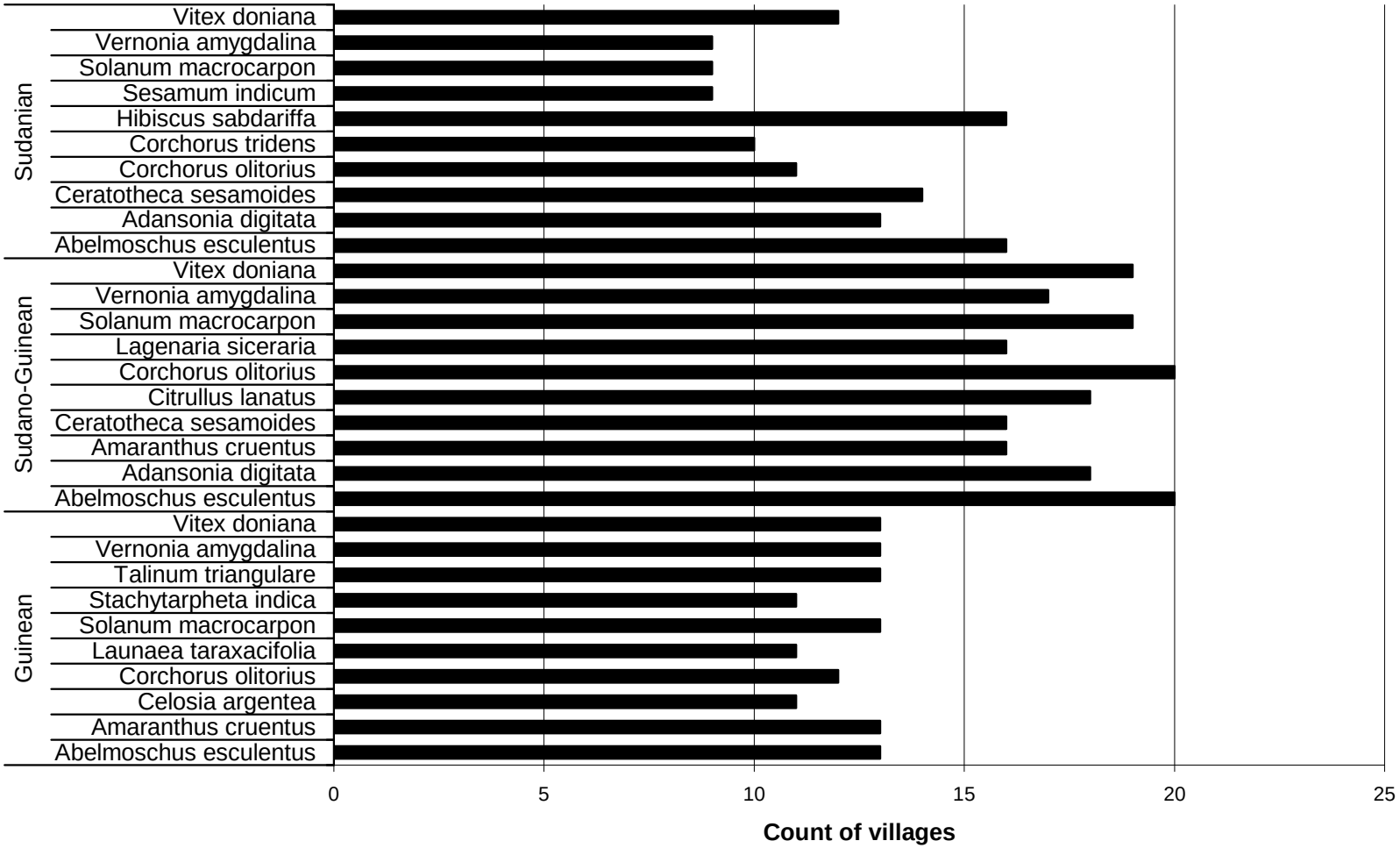

Figure 5.1: Top ten traditional vegetables traded in the Guinean (n=13), Sudano-Guinean (n=20), and Sudanian (n=16) zones of Benin (village focus group data). The graph shows the number of villages trading each species. Overall, 13 villages were surveyed in the Guinean zone; 20 in the Sudano-Guinean zone; and 16 in the Sudanian zone.

Chapter 6 – Conservation of diversity of traditional vegetables in Benin

MW Pasquini & B Ambrose-Oji

6.1. Assessing the status of traditional vegetables

There are widespread reports that the diversity of traditional vegetables in West and Central Africa is declining. There are many causes to which this can be attributed. They may be general threats common across many African countries, such as increasing land use change and habitat destruction in response to growing populations, as land is cleared for cultivation, for plantation silviculture, or as a consequence of urbanisation and infrastructure development. There are also more species-specific threats from intensive exploitation of particular plants used as vegetables. A characteristic example is the continuing destructive harvesting practices associated with *Gnetum africanum* (*eru*) in Nigeria, Cameroon, Gabon and the Central African Republic (Shippers and Besong, 2004) or with *Crassocephalum rubens* in Cameroon (Bosch, 2004).

Assessing the situation in Benin is not straightforward. Up until the recent Darwin Initiative 15/003 study, Dansi *et al*. (2008) and the work by Adjatin (2006) there has been no other accessible information documenting the vegetable species used by different socio-linguistic groups around the country. Even botanical single species studies which map distribution and species richness across different agro-ecological zones are limited to a few well recognised taxa of regional significance such as the baobab *Adansonia digitata* (Assogbadjo, 2006), the bitter melon *Momordica charantia* (Achigan-Dako, 2008) or aki/akee *Blighia sapida* (Ekue *et al*., 2009). The work of the CGIAR centres reflect this too. The SINGER[12] records for Benin show 1,118 accessions representing just seven different genus, only one of which *Vigna* can be used as a vegetable. Similarly the germplasm holdings of the World Vegetable Centre contain only two taxa from Benin (*Solanum aethiopicum* and *Amaranthus cruentus*). It is important for new studies to build on the work delivered by the Darwin Initiative 15/003 project, and begin to map in greater detail the distribution and genetic diversity of the species used as vegetables.

So, at the present time the only means of assessing which species used as vegetables may be disappearing from the environment is through knowledge of local communities. As discussed in Chapter 1 individual respondents were asked (using a questionnaire) whether they were aware that any species had disappeared or were disappearing in the environment. They were also asked whether they had undertaken any actions to prevent their disappearance, or if they could suggest any solutions for their preservation; if there were any specific harvesting systems to protect species; if there were any species that they had domesticated and wished to domesticate; and their perception of the constraints with regards to conserving biodiversity. In addition, these questions were explored in more detail with older informants considered to be knowledgeable on the plant species which could be used as vegetables, and who could give a long time perspective.

The results yielded through this approach are of course the *perception* of specific individuals and do not necessarily reflect the actual status of the species in the environment. Nevertheless, where reports from respondents about the decline or disappearance of specific species are given by significant numbers of people, these should be taken seriously. One problem with this approach is

[12] SINGER is the genetic biodiversity collection and storage information service of the CGIAR centres and the FAO established in response to the International Treaty on Plant Genetic Resources for Food and Agriculture, which entered into force in June 2004. http://singer.cgiar.org/index.jsp?page=showkeycount&serach=cuc=cuben

that it may fail to detect species which though they are genuinely declining in the environment, are not reported because they are no longer of interest to the respondents.

Unfortunately, the actual identification of species reported to be extinct is extremely difficult because of the numerous socio-linguistic groups in the country. A species reported to be extinct in the environment around a village in the more populous south of the country may still be widespread in another location, where it is, however, called by a different local name. And even within the same linguistic groups, there can be uncertainties when a particular species is identified by more than one local name, or of course, when the same local name is applied to two different species. As the Darwin Initiative 15/003 surveys collected data from 19 socio-linguistic groups, with generally only two villages per group, identifying species reported to be extinct from local names has often not been possible.

Similarly, if a species was reported to be increasingly rare, it was sometimes possible to find a sample in the environment for identification, but not if the species was in a location with difficult access.

6.2. Perceptions of threatened species, constraints and local approaches to biodiversity conservation

Across all 18 villages only 55% of questionnaire respondents reported a species that had disappeared or was disappearing, though a closer analysis of the data shows that it was mainly in the four villages located in Sudanian zone where the majority of respondents did *not* report any threats. Overall, 58 species were reported as threatened, but amongst these only a few species were reported as threatened by a reasonably high number of respondents. Figure 6.1 shows that only *Crassocephalum sp.* and *Launaea taraxacifolia* were reported by more than ten respondents (indicating that more than one village was concerned about a decline of the species).

Other species could be declining locally. For example, *Synedrella nodiflora* was reported as threatened only by respondents in Assedji. *Ceiba pentandra* was of concern only to respondents in Barikini. A further 40 local names which could not be identified were also given. The majority of these were from villages located in the Sudano-Guinean and Sudanian zone. However, problems with translation and the knowledge of the ethno-botanical team resting on plants and local names from other parts of the country means the survey identification of less common species in this area remained rather more limited.

Even fewer species were reported as having disappeared from the environment altogether (data not shown). The only species which stood out was *Ageratum conizoides*, which every respondent in Akpate reported as having disappeared from the environment. In the case of 'disappeared' species too, there was a similar problem of identification and 19 local names could not be identified.

When asked what constraints survey respondents perceived with regards to protecting the diversity of traditional vegetables, 71 out of 170 respondents (interviewed through a questionnaire) did not give an answer or misunderstood the question and gave an irrelevant answer. The remaining 99 responses are shown in Figure 6.2. There is an interesting difference in perception between women and men. The constraints mentioned by women centred around production, and they mentioned various farming constraints, lack of seed supply and poor rainfall. The constraints listed by men were more varied, and noticeably they mentioned habitat destruction (destruction of forests, land clearance, bush fires), and also poor market demand or low prices. There was also a significant category of answers dominated by male respondents where "no constraints" were reported.

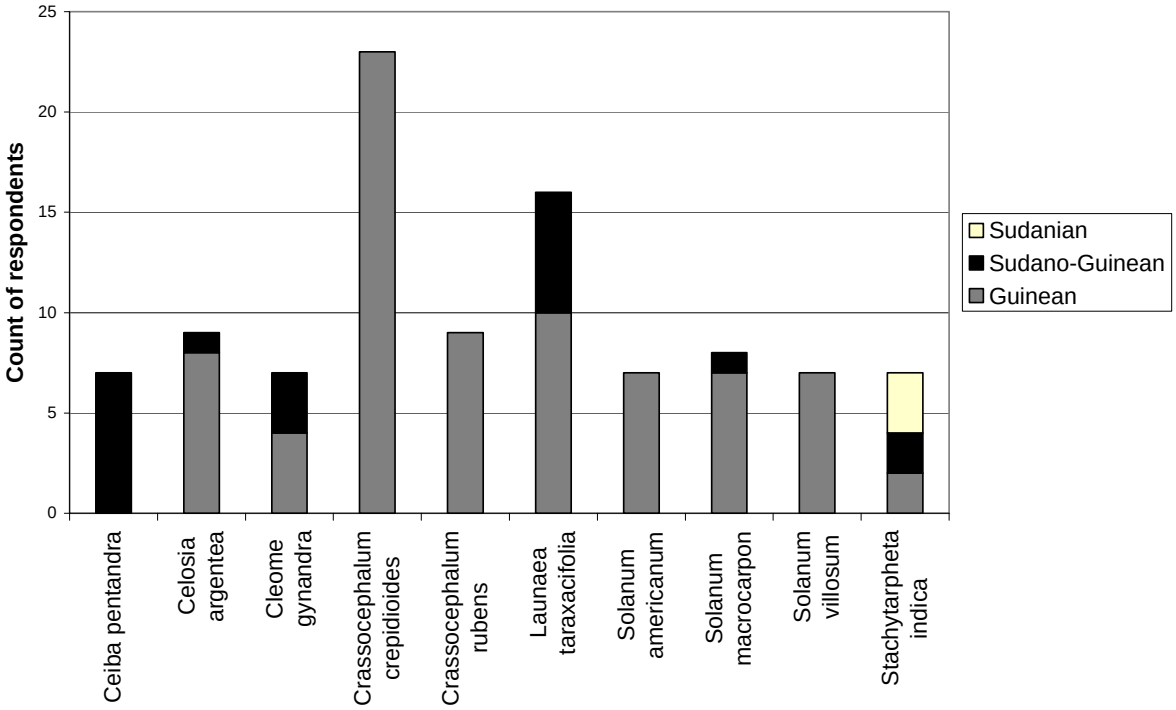

Figure 6.1: The most threatened species (respondent perception) disaggregated by phyto-geographical region in Benin.

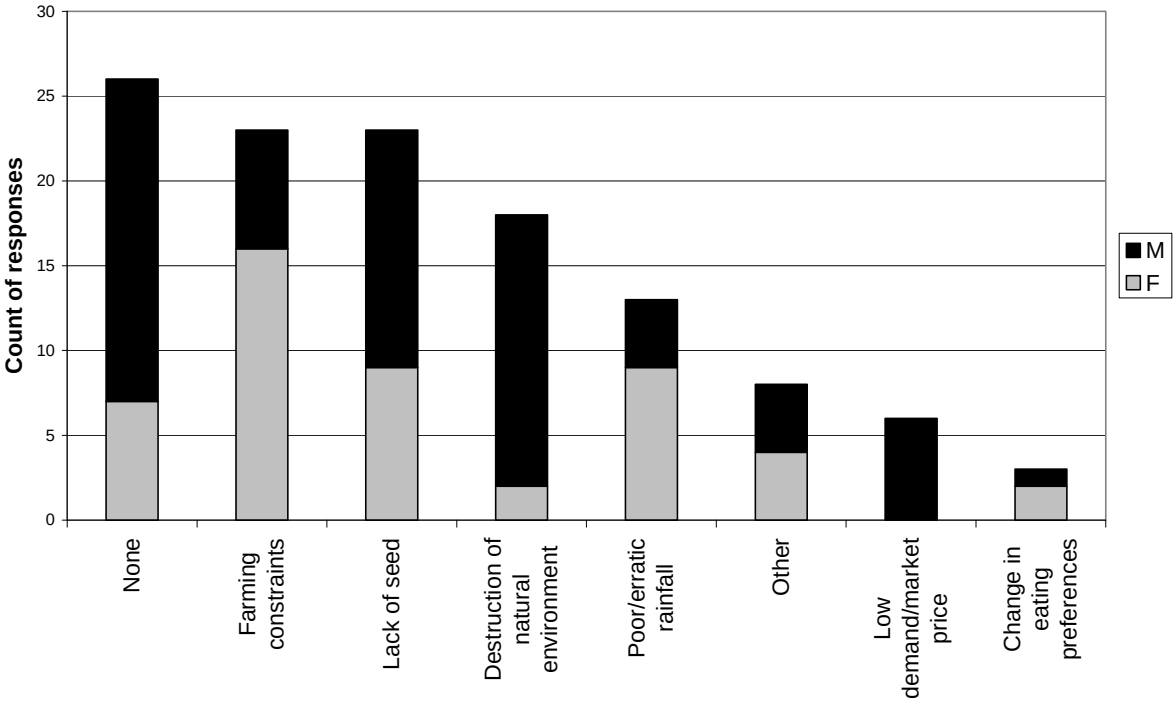

Figure 6.2: Constraints to the conservation of biodiversity of traditional vegetable disaggregated by gender M=Male, F=Female (individual questionnaires, n=120).

When respondents were asked if they had undertaken any actions to try and conserve the threatened species, only 87 (out of 170) gave an answer, and of these nearly 75% said they had not. Of the remainder 11.5% had looked for seeds and 11.5% had started cultivating them on small scale.

With regards to possible solutions to the disappearance of species in the environment, 98 respondents did not give any answer, and 19 felt there were no solutions. The solutions suggested by the remaining respondents are shown in Figure 6.3. Unsurprisingly, the solutions can be linked back to the perceived constraints. Women advocated support in terms of seed supply and requested other forms of technical/financial support. Very few respondents suggested protecting the natural environment and of those who did, the majority were male.

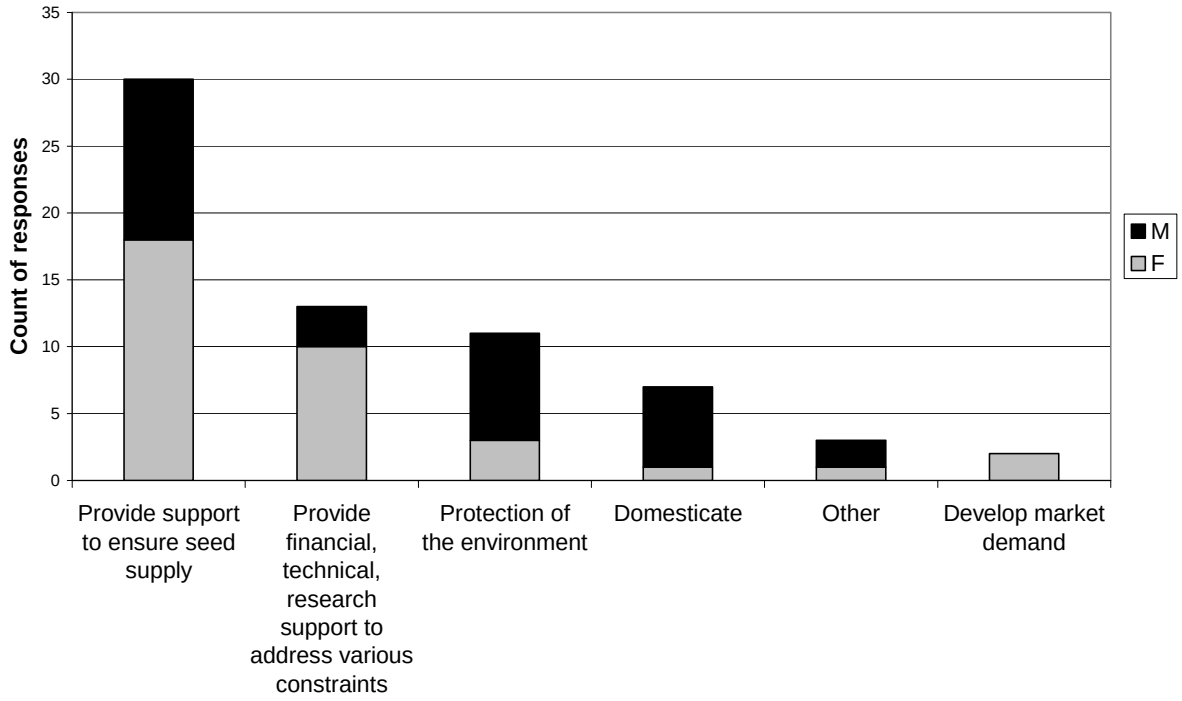

Figure 6.3: Solutions suggested by respondents to recover disappearing species disaggregated by gender M=Male, F=Female (n=66).

In terms of harvesting and collective resource management systems, it emerged that there were no particular techniques, or joint efforts. Respondents observed that to protect species, harvesting should not take place during flowering and fruiting period, in the case of herbaceous species only part of the plant should be collected (e.g. the leaves) and without damaging it, and in the case of tree species, certain silvicultural regeneration practices should be observed (see also Chapter 5).

The information provided by older informants in the course of the semi-structured interviews more or less mirrored the patterns obtained through the questionnaire survey (data not shown).

6.3 Domestication of wild species

Table 6.1 show the species which respondents claimed they had domesticated and wished to domesticate. These data should be viewed with caution, as the top three species are known to be

widely cultivated. This suggests that respondents were giving a broader interpretation to the word 'domestication' than had been intended, and included species which were new to the village or to the respondent (but not necessarily wild). Whilst domestication in scientific terms is associated with a process which results in the selection and replication of cultivars with desired traits and genetic suitability for domestic conditions, it has a far looser definition amongst villagers. For example, 15 of the 17 respondents claiming that *Celosia argentea* had been domesticated were from a single location (that of Gogbo). It seems they probably considered *C. argentea* domesticated if they simply transplanted wildings from the surrounding environment into their home gardens, or if they maintained them in their fields. Overall, there was little interest in domesticating species, apart from some desire to halt the decline of *Launaea taraxacifolia* and *Crassocephalum* spp. as shown in Figure 6.1 and Table 6.1.

Table 6.1: Species which respondents claimed they had domesticated and wished to domesticate [count of female (F) and male respondents (M)]

Species which respondents claimed had been domesticated	**F**	**M**	**Species which respondents wished to domesticate**	**F**	**M**
Celosia argentea	15	2	*Ceratotheca sesamoides*	3	1
Vernonia amygdalina	11	1	*Vitex doniana*	3	1
Corchorus olitorius	8		*Corchorus tridens*	1	2
Crassocephalum rubens or *C. crepidioides*	3	4	*Sterculia tragacantha*		3
Cleome gynandra	5		*Bombax costatum*		2
Ocimum gratissimum	4		*Celosia trigyna*		2
Corchorus tridens	2	1	*Corchorus olitorius*		2
Launaea taraxacifolia	2	1	*Emilia sonchifolia*	1	1
Synedrella nodiflora	3		*Laportea aestuans*		2
Moringa oleifera		2	*Hibiscus asper*		2
Talinum triangulare	2		*Ocimum gratissimum*	2	
Vernonia colorata		2	*Solanum macrocarpon*		2
Vitex doniana	1	1	*Synedrella nodiflora*		2
Adansonia digitata	1		*Vernonia amygdalina*		2
Ceratotheca sesamoides	1		*Adansonia digitata*		1
Cucumeropsis mannii		1	*Alternanthera sessilis*		1
Melanthera scandens	1		*Aspilia africana*	1	
Ocimum basilicum	1		*Cyphostemma adenocaule*	1	
Sesamum indicum		1	*Celosia argentea*		1
Solanum macrocarpon	1		*Cissus populnea*	1	
Stachytarpheta indica		1	*Hibiscus sabdariffa*	1	
Sterculia tragacantha		1	*Lippia multiflora*	1	
			Struchium sparganophora		1
Species which respondents wished to domesticate	**F**	**M**	*Melanthera scandens*	1	
Crassocephalum rubens or *C. crepidioides*	4	4	*Moringa oleifera*		1
Croton lobatus	5	2	*Solanum americanum*	1	
Launaea taraxacifolia	2	5			
Talinum triangulare	2	3			

Part II

Selected species of traditional vegetable of Benin by family

S N'danikou, TM Assogba, ES Avohou & EG Achigan-Dako

This part of the document combines data from a variety of sources (Grubben and Denton 2004, Akoègninou *et al*. 2006) with information collected through the Darwin Initiative 15/003 project describing species and their utilization as indicated by community respondents. Only species cited in at least two villages are described (with the exception of *Althernantera brasiliana* which was found only in Holly socio-linguistic group in Akpatè). The species are grouped by family.

Acanthaceae

Asystasia gangetica (L.) T.Anderson

Local names: Akoussimekpe (Holly), Azéman (Fon), Yéfè (Goun), Lobiri (Yoruba, Nagot) Atchelekman (Anii), Degnuman (Aïzo), Liman (Adja), Pobunga (Gourmantché).
Common names: Herbe le rail, herbe pistache, pistache marron (Français), Tropical primrose, Chinese violet (English).
Description and variation: *Asystasia gangetica* is an annual, sometimes perennial herb which can reach 1 m in height. The stems are usually ascending, branched and quadrangular. The leaves are simple, opposite, blade ovate to lanceolate, base cuneate to cordate, apex acuminate to acute, margin entire, glabrous to sparsely pubescent. The inflorescence is a terminal raceme up to 25 cm with flowers directed to one side. Two subspecies have been described so far. The more vigorous subsp. *micrantha* is distributed in tropical Africa, the Indian ocean islands and Arabia and the subsp. *gangetica* occurs in India, Sri Lanka, South-East Asia and islands of the Pacific Ocean, and has been introduced in tropical America.
Status: Wild.
Habitat: A common weed found in farm fields, fallows and abandoned areas along roadsides and river banks in more or less water-logged areas as well as well-drained cultivated areas.
Distribution: Bembè, Ahozon, Issaba, Dogué, Natitingou (Akoègninou *et al*., 2006)
Darwin Initiative 15/003 project specimen collected from: Tanongou (Tanguieta); Barikini, Penelan (Basilla); Akpate (Pobè); Agbandonou (Allada); Agnavo (Dogbo).
Reproductive biology: *Asystasia gangetica* is a species which propagates by seeds. Multiplication by stem cuttings with 1-3 nodes is also possible. Single-node cuttings buried in soil produce flowers and fruits within 6 weeks.
Utilisations: A leafy vegetable collected from the wild and in general rarely eaten, except by Gourmantché and Anii communities in the north and Adja, Aïzo and Holly communities in the south. It can be found sometimes in the market in the rainy season, the period of abundance.
Threat on genetic resources: not evaluated.
Further reading: Grubben and Denton (2004).

***Justicia anselliana* (Nees) T.Anderson**
Syn.: *Adhatoda anselliana* Nees

Local names: Damandodjè (Ouémè, Aïzo).
Description and variation: An herbaceous plant, erect or decumbant. The inflorescence is a cyme with white flowers.
Status: Wild.
Habitat: *Justicia anselliana* is found in low-lying flood lands.
Distribution: Goho, Ifangni, Bonou, Adjohoun, Hozin, Igolo (Akoègninou *et al*., 2006).
Darwin Initiative 15/003 project specimen collected from: Gbéko (Dangbo), Gogbo (Adjohoun).
Utilisations: *Justicia anselliana* is rarely or occasionally consumed among Wémè and Aîzo communities in southern Benin. Young leaves are collected from the wild in the dry season when the level of water has dropped in the valleys. It is sold in the local market.
Threat on genetic resources: Not evaluated.

***Justicia insularis* T.Anderson**

Local names: Kpahunmarogu (Gourmantché), Mutun (Wamma).
Common names: Tetu, Justicia (Français, English).
Description and variation: *Justicia insularis* is an annual or perennial herb up to 2 m tall. The stems are angular, glabrous to pubescent, basal part often swollen with aerial roots. The leaves are decussately opposite, simple, almost glabrous to densely pubescent, blade linear or narrowly lanceolate to ovate, base attenuate to truncate, apex obtuse to acuminate, margin entire to crenate. The inflorescence is an axillary or terminal congested spike, few-flowered, with narrow bracts. The flowers are usually crimson but sometimes white. The fruit is an ovoid to ellipsoid capsule, yellow-brown to white, explosively dehiscent. There is a wide variation within *Justicia insularis*. Improved cultivars are not available and there are no germplasm collections.
Status: Wild, domestication underway.
Habitat: The plant occurs in a wide range of habitats from moist forests to dry savannah regions. It is also found in cultivated land refuse heaps, grasslands and forest edges. It can be found on sandy or loamy soils but requires rich humus soils with slight shade for optimum growth.
Distribution: Tanguieta, Bassila, Tamarou, Guéné, Tanougou Tchetti (Akoègninou *et al*., 2006).
Darwin Initiative 15/003 project specimen collected from: Batia (Tanguieta); Pouya (Natitingou).
Reproductive biology: *Justicia insularis* can be propagated by seeds or cuttings. The seed remains dormant during the dry season and germinates readily with the onset of rains. Seed production is difficult because the seeds are scattered when the fruits split open. As a result, the seeds may be gathered immediately when the colour changes from green to white or whole branches with inflorescences are harvested and dried. In cultivation it is easier to take a root cutting obtained from the basal part of stem. Spontaneous seedlings can be up-rooted and transplanted into vegetable beds. Stem cuttings about 15 cm long can also be planted.
Utilisations: It is collected from the wild in fallows and farms and young leaves are frequently consumed in the rainy season. It is sometimes sold in the market.

Threat on genetic resources: There is no immediate threat of genetic erosion of the existing variation. Collection and maintenance of the germplasm is required for genetic studies and selection of improved cultivars.
Further reading: Grubben and Denton (2004).

Justicia tenella (Nees) T.Anderson

Local names: Djagudjagu (Ifè, Tchabè & Gourmantché), Kurokuro (Idatcha), Kurokuntonu (Bariba & Boko), Parbatukpékpériya (Waama), Tinukunti (Otammari).
Description and variation: *Justicia tenella* is an herbaceous semi-perennial plant with spindly stems up to 40 cm long. It often roots at lower nodes.
Status: Wild but domestication underway.
Habitat: A riparian forest or river bank species. It is found in fallows or as a weed in farms or cultivated in home gardens.
Distribution: Djagbalo, Ilogourou, Segbana Kolokondé, Aguidahoué (Akoègninou *et al*., 2006).
Darwin Initiative 15/003 project specimen collected from: Loumbou-lounbou (Karimama); Tamba, (Savalou); Ikemon (Ouèssè); Okunfo (Savè), Ekpa (Ouèssè); Ganro (Bembereke); Zougou-pantrossi (Gogounou) , Ilèman, Kpakpoaza (Dassa), Bensèkou (Kandi), Kpassa (Tchaorou); Mareguinta (Kalalé); Cotiakou (Tanguieta); Pouya (Natitingou); Moupemou (Natitingou).
Reproductive biology: *Justicia tenella* can be propagated by seeds or cuttings (Dabade 2009).
Utilisations: The species is collected from the wild by the above listed communities. It is said to be domesticated by the Otammari, Boko, Idatcha, Bariba, Tchabè, and Ifè communities. Usually sold in the market, the production is generally abundant in the rainy season. *Justicia tenella* is a major leafy vegetable in north-west Benin.
Threat on genetic resources: Not evaluated.
Further reading: Dabade (2009).

Amanranthaceae

Alternanthera brasiliana (L.) Kuntze

Syn.: *Gomphrena brasilina* L.; *Philoxerus brasiliana* (L.) Smith

Local names: Olowon'djedja or Djetandoyé (Holly).
Common names: Bouton Blanc, Marguerite à Fleurs Rouges (Français), Brazil Chaff-Flower, Brazilian Joyweed (English).
Description and variation: An annual herbaceous plant up to 60 cm tall or more, very branched. The stems are erect, villous, glabrate. The leaves are red, sessile, blade ovate to lanceolate, villous. The inflorescence is terminal and axillary, pedunculate, heads white, globose, bracts keeled, shorter than to equaling tepals. The seeds are ovoid-oblong.
Status: Ornamental plant, introduced. The species is cultivated in rainy season but also goes wild.
Habitat: Around built-up areas and in fallows and dumps.
Distribution: Godomey, Pobè (Akoègninou *et al*.).
Darwin Initiative 15/003 project specimen collected from: Akpate (Pobè).

Utilisations: The consumption of *Alternanthera brasialiana* as a leafy vegetable is recorded amongst the Holly socio-linguistic group in south-eastern Benin. The species is said to be aphrodisiac.
Threat on genetic resources: It is not under threat.

***Alternanthera sessilis* (L.) R.Br. ex Roth**
Syn.: *Gomphrena sessilis* L. ; *Alternanthera achyranthoides* Forssk.

Local names: Idé, Achoukpa (Holly), Gwè (Mahi), Houngba (Goun), Gomi (Adja), Tomadohoungbè (Cotafon), Atakuluesuan, Guinédéné, Guinnindanou (Anii), Agoué (Wémè), Houngbè (Aïzo).
Common names : Brède chevrette, magloire (Français), sessile joyweed, dwarf copperleaf (English).
Description and variation: A perennial or annual herb up to 1 m tall, erect, ascending or creeping, often widely branched, with a robust taproot. The stems are striate, terete below, and slightly tetragonous above, solid, sometimes floating in water and fistulose in lower part. The leaves are opposite, simple, petiole up to 5 mm long; blade linear-lanceolate, oblong to ovate or obovate, glabrous to sparsely pilose. The inflorescence is in an axillary, sessile, subglobose head. The flowers are bisexual and regular. The fruit is an obreniform, corky, indehiscent capsule of 2 mm long, dark brown, 1-seeded.
Status: Wild.
Habitat: *Alternanthera sessilis* is a very common plant of constant or periodically humid, open localities in roadsides, gardens, ditches, swamps and rice fields on many types of soil. In farms and along watercourses, it can become noxious aquatic terrestrial weed. It prefers loamy, alkaline soil, low in exchangeable calcium and rich in total nitrogen.
Distribution: Pobè, Ahogbéya, Togon, Dassa-Zoumè, Kénoukpanou, Sébou, Kargui (Akoègninou *et al*.)
Darwin Initiative 15/003 project specimen collected from: Afomayi (Lalo); Gogbo (Adjohoun); Ayetedjou (Kétou); Sohounme (Houeyogbé); Gbeko (Dangbo); Agnavo (Dogbo); Zonmon (Zagnanado); Zalimey (Zogbodomey); Penelan (Bassila); Kodowari (Bassila); Barikini (Bassila).
Reproductive biology: *Alternanthera sessilis* produces flowers and fruits throughout the year with most vigorous reproductive growth at the end of it. The flowers are self-pollinated and the fruits are dispersed by wind and water. It can be also propagated by rooted stem parts.
Utilisations: *Alternanthera sessilis* is consumed as leafy vegetable year-round among several socio-linguistic groups. Leaves are collected from the wild and sold in local markets.
Threat on genetic resources: It is widespread and it is not under threat of genetic erosion.
Further reading: Grubben and Denton (2004).

***Amaranthus cruentus* L.**
Syn.: *Amaranthus hybridus* L. Subsp. c*ruentus* (L.); *Amaranthus paniculatus* L.

Local names: Fotètè (Tchabè, Idatcha, Mahi), Tètè (Mahi), Èfo tètè, Èfo docteur, Olowon'djèdja (Tchabè), Adjogodo (Ifè), Tètèfufu, Tètèdudu (Holly).
Common names: Amarante, brède de Malabar (Français), Amaranth, African spinach (English).

Description and variation: *Amaranthus cruentus* in an annual herb, erect and less commonly growing up to 2 m tall. The stems are stout, branched, angular, glabrous or thinly to moderately furnished with multicellular hairs. The leaves arranged spirally, simple, without stipules, long-petiolate; lamina broadly lanceolate to rhombic-ovate, attenuate or shortly cuneate at base, obtuse to subacute at apex, mucronate, entire, glabrous to sparsely pilose, pinnately veined. The inflorescences are large and complex consisting of numerous agglomerated cymes arranged in axillary or terminal racemes and spikes, the terminal one up to 45 cm long, usually with many lateral, perpendicular, thin branches. The flowers unisexual, subsessile, fruit is an obovoid to rhombic capsule 2-2.5 mm long, circumscissile, almost smooth, with a short beak, 1-seeded. Many cultivars exist and are cultivated (red, pink and green). Green cultivars are the most frequent and appreciated in Benin.
Status: Cultivated.
Agro-ecology: Amaranths grow well at day temperature above 25° C and night temperature not lower than 15°C. Amaranths prefers fertile, well-drained soils with a loose structure. The mineral uptake is very high. The plant is fairly tolerant of adverse climate and soil conditions. The plant is used to control nematode populations in periurban agriculture in Cotonou.
Production systems: In Benin, *Amaranthus* is one of the most commonly cultivated and consumed African spinach. Cultivation occurs in all agro-ecological zones from the coastal sector in the Guinean phyto-geographical zone to the dry forests and herbaceous savannahs in the Sudanian zone. However, the species is more appreciated in the Guinean zone and widely spread out in urban agriculture. The common cultivation practice is sowing in the nursery at a seed rate of 3-10g/m² and transplanting after 2-3 weeks. The production can be for once-over harvesting or repeated cuttings depending on the plant density. Usually the repeated cutting method (2-3 cuttings) is the one adopted by producers in urban agriculture. From market surveys it appears as one of the main leafy vegetables in Benin, possibly the second one after *Solanum macrocarpon*. In big cities like Cotonou, *Amaranthus cruentus* represents 31% of the average quantity of fresh leafy vegetable bought daily at the markets.
Darwin Initiative 15/003 project specimen: Vossa (Ouèssè); Sohounm (Houéyogbé); Bensékou (Kandi); Barikini, Tchimberé, Akaradè, Pénélan, Kodowari (Bassila); Okunfo (Savè); Afomayi (Lalo); Agnavo (Dogbo); Assdji (Athiémé); Zonmon, Zalimey (Zogbodomè) ; Akpatè (Pobè); Pouya (Natitingou); Cotiakou (Tanguiéta); Ayétédjou (Kétou); Gogbo (Adjohoun); Gbeko (Dangbo); Ganro (Bembèrèkè); Dabou (Parakou); Zougou-Pantrossi (Gogounou); Torozogou (Malanville).
Utilisations: The main use of *Amaranthus cruentus* is as a leafy vegetable prepared by boiling and cooking shredded tender leaves and soft stems. It is consumed as a vegetable dish or as an ingredient in sauces. Leaves are often sold in bunches in local or regional markets. The economic value of *Amaranthus cruentus* as a popular vegetable is high. Production and sale involves a great number of women and contributes to many households' income particularly in urban areas. Amaranth leaves provide iron and protein. Leaves have very high essential micronutrient content. Medicinal uses are numerous. Leaves are specially recommended for children, lactating women and in case of constipation, fever, haemorrhoids and anaemia.
Threat on genetic resources: There is no immediate threat of erosion on the existing genetic resources. However, escapes growing as weeds tend to disappear.
Further reading: Grubben and Denton (2004), Akplogan *et al.*, (2007).

***Amaranthus dubius* Mart.ex Thell.**
Syn**.** *Amaranthus tristis* auct. non L.

Local names: Togba (Fon), Handoukpo (Mahi); Tekpegnonkonkondé (Gourmantché), Yonbita (Waama).
Common name: Amarante, brède de Malabar (Français), amaranth, pigweed (English)
Description and variation: An erect annual herb, up to 150 cm tall; the stems are slender to stout, branched, glabrous or upwards, especially in the inflorescences, with short to rather long hairs. The leaves are arranged spirally, simple, without stipules; lamina ovate or rhomboid-ovate, cuneate at base, blunt or retuse at apex, mucronate, entire, glabrous or shortly pilose, sometimes the centre of the lamina blotched red. The inflorescences are spikelike or paniculate, axillary and terminal, the terminal one up to 25 cm long, consisting of glomerules more or less isolated at base of inflorescence and agglomerated towards apex. The flowers are unisexual and subsessile. The fruit is an ovoid-urceolate capsule with a short inflated beak, 1-seeded. Cultivated types of *Amaranthus dubius* differ from weedy types; they are larger, more erect and more succulent. Several local types occur.
Status: Introduced from Surinam but actually occurs wild, domestication underway.
Habitat: Weedy *A. dubius* is a small prostrate plant frequently found in tropical humid lowlands. It is also a common weed plant in waste dumps, in fallows, roadsides, flood plains, river banks and cleared forest areas. Like *A. cruentus*, *A. dubius* grows well at day temperature above 25° C and night temperature not lower than 15°C and likes fertile, well-drained soils with a loose structure.
Distibution: Dan, Samiondji, Twé-Covè, Cotonou (Akoègninou *et al*.).
Darwin Initiative 15/003 project specimen collected from: Bognongon (Zogbodomey); Zonmon (Zagnanado), Batia (Tanguieta); Pouya (Natitingou).
Reproductive biology: The seed of *A. dubius* is smaller than that of other cultivated amaranths. Seeds of fruiting plants scatter and gives rise to new plants. The cultivation method is sowing in a nursery at a rate of 2-10 g/m² and transplanting after 2-3 weeks.
Utilisations: *Amaranthus dubius* is a leafy vegetable domesticated and cultivated in some areas of Benin. It has been cited in the Sudanian (e.g. Pouya in Waama socio-linguistic group) and Guinean zones (e.g. Bognongon in Fon socio-linguistic group). Uses of *A. dubius* and its nutritional composition are similar to the ones of *A. Cruentus.* To make it more appetizing, many people prefer to associate this vegetable with bitter vegetables (e.g. Bitterleaf, African eggplant).
Threat on genetic resources: Not evaluated.
Further reading: Grubben and Denton (2004), Akoègninou *et al*. (2006).

***Amaranthus spinosus* L.**
Syn. *Amaranthus spinosa* L.

Local names: Handoukpo (Mahi), Tètè ounon (Fon, Goun), Tètè vè (Goun), Tètè élégoun (Nagot), Awoundjagbe (Cotafon), Ayinkpinnan, Akpignikokonan (Gourmantché), Daboukonkondi (Gourmantché), Sagourou (Bariba), Sodjagbe (Cotafon), Sogbe (Adja), Tete elegou, Tètèèlègoun (Holly), Tisanpoti (Otammari).
Common names: Épinard cochon, Amarante épineuse (Français), Prickly amaranth, Spiny amaranth, Pigweed species, Thorny pigweed (English).
Description and variation: An annual, erect, monoecious herb, up to 100(-130) cm tall, much branched; the stem is obtusely angular, glabrous or slightly pubescent, green or variably

suffused with purple. The leaves are alternate, simple, the stipule is absent, petiole approximately as long as leaf-blabe. The inflorescence consists of dense clusters, lower ones axillary, higher ones collected in axillary and terminal spike. The flowers are unisexual, solitary in the axil of a bract. The fruit is an oblong capsule with persisting styles, circumscissile a little below the middle or indehiscent, 1-seeded. It is usually difficult to make a distinction between *Amaranthus dubius* and *Amaranthus spinosus* based on morphological characters; *Amaranthus spinosus* has axillary spines which are not present on *Amaranthus dubius*. However, spineless *Amaranthus spinosus* is observed in several localities.
Status: Wild.
Habitat: *Amaranthus spinosus* is adapted to a wide range of climatic and edaphic factors. It grows best in the sun or in light shade. Flowering is earliest and most abundant in areas with day lengths of 11-12 hours. Spiny amaranth is nitrophilous and prefers soil with high organic matter content but is also able to grow on sandy soils. Optimal growth is obtained on soil with moderate moisture content, but the plant is also capable of growing on wet soil as well. It is drought-resistant and can even grow under arid conditions.
Distribution: Porto-Novo, Abomey Calavi (Akoègninou *et al*.)
Darwin Initiative 15/003 project specimen collected from: Assedji (Athiémé); Zonmon (Zogbodomey); Sohounme (Houeyogbé); Agnavo (Dogbo); Akpate (Pobè); Ayetedjou (Kétou); Moupemou (Natitingou); Batia (Tanguieta); Tanongou (Tanguiéta); Loumbou-Loumbou (Karimama); Ganro (Bembèrèkè).
Reproductive biology: Seeds mature about one month after flowering. They are scattered around the mother plants or distributed by animals feeding on plants. It has been observed that large numbers of seedlings emerge from cattle faecal deposits. Seeds are also eaten by birds which contribute to the propagation of the plant.
Utilisations: Because of its spines, this leafy vegetable is the least appreciated of *Amaranthus* species, nevertheless small quantities of leaves and stands are harvested for self consumption especially in the dry season. Sometimes leaves are sold in markets but it does not have a great market value. Pigs may feed on it. The plant is said to have several medicinal uses.
Threat on genetic resources: Not evaluated.
Further reading: Grubben and Denton. (2004).

***Amaranthus viridis* L.**
Syn. *Amaranthus gracilis* Desf. ex Poir.

Local names: Tètè moto (Fon, Goun), Amadjin (Fon), Tètè dudu wèrè, atarounwa (Yoruba) Soungui (Bariba), Agnigbandjowelo (Cotafon), Tètè, Ayodogo (Aizo), Tereguenu (Bariba), Nafanafa (Gourmantché), Sogbe (Adja), Tchirotché (Dendi), Tetegbe (Aizo), Tete ibile (Holly), Gblegbe (Adja), Gassira (Bariba), Etè moto (Wémè), Aléfo (Dendi).
Common names: Amarante verte, Epinard vert (Français), Green amaranth, Local tete, African spinach, Tropical green amaranth (English).
Description and variation: The plant is an erect, ascending or short-lived perennial herb up to 1 m tall. The stems are slender, branched and angular, glabrous to sparsely pubescent in the upper part with multicellular hairs. The leaves are alternate, simple, petiole up to 10 cm long. The inflorescence consists of agglomerated cymes arranged in slender, axillary or most terminal spike, frequently paniculate, up to 12 cm long. The flowers are unisexual, subsessile, green, male and female intermixed but female ones more numerous. The fruit is a

subglobose capsule (1.5 mm in diameter) not exceeding the perianth indehiscent, usually strongly wrinkled, 1-seeded.
Status: Wild; but often cultivated by socio-linguistic groups such as the Fon and the Goun, in southern Benin. This *Amaranthus* species is said to have a rapid growth hence its local name "tètè moto".
Habitat: *Amaranthus viridis* is a weed growing on disturbed or cultivated lands, often around buildings.
Distribution: Houéda, Kpéssou, Parakou, Kouandé, Agbanto, Kargui (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 project specimen collected from: Assedji (Athiémé); Gome (Toffo); Agnavo (Dogbo); Gogbo (Adjohoun); Afomayi (Lalo); Gbeko (Dangbo); Akpate (Pobè); Agbandonou (Allada); Banigri (Tchaourou); Torozogou (Malanville); Zougou-Pantrossi (Gogounou); Batia (Tanguieta); Tankougou (Kandi); Kargui (Karimama).
Reproductive biology: *Amaranthus viridis* is easily grown from seeds like other amaranths.
Utilisations: Leaves and tender stems (before the plant comes into flower) are occasionally eaten as a cooked vegetable.
Threat on genetic resources: Not evaluated.
Further reading: Grubben and Denton (2004).

***Celosia argentea* L. var. *cristata* (L.) Kuntze**
Syn.: *Celosia cristata* L.; *Celosia argentea* f. *cristata* (L.) Schinz

Local names: Soman (Fon, Mahi, Holly, Adja, Aïzo), Tchokoyokoto (Ifè, Yoruba), Adjobodo, Tètèkpkpo (Tchabè), Avunvo (Goun, Cotafon, Mahi), Djogbolo (Mahi), Afonnou (Bariba), Adéfò (Otammari), Yabagassirou (Bariba), Iforana, Aféfokenka, Èfo (Anii), Avlounvé (Oueme), Ayinkpinnan (Gourmantché), Tchokoognibo (Holly), Tchokoyokoto (Ifè), Gasiala (Boko), Alefò (Otammari), Vounvo (Aizo), Aléfo (Anii, Kotokoli, Bariba, Dendi), Afonoussouan (Bariba), Aléfo, Kimbrékoudjondjo (Kotokoli), Tokounme (Cotafon), Gassia (Bariba).
Common names: Célosie, Crête de coq (Français), Common cockscomb, Garden cockscomb (English).
Description and variation: *Celosia argentea* is an annual erect herb up to 2 m tall. The stems are rigged, glabrous, branches up to 25 per plant, ascending; the leaves are alternate, simple, without stipules. The inflorescence is a dense many-flowered spike, at first conical but becoming cylindrical, up to 20 cm long, bracteates, silvery to pink, in ornamental forms completely or partly sterile and in many colours. The flowers are small, bisexual, regular, 5-merous, tepals free, narrowly elliptical-oblong. The fruit is an ovoid to globose capsule 3-4 mm long, circumscissile, few-seeded. There are three major types of *C. argentea* produced in Benin: green broad-leaved cultivar; broad-leaved cultivars with anthocyanin pigmentation on the leaf blades and parts of the stems, and an early flowering cultivar with deep green narrow leaves with a hard texture.
Status: Cultivated.
Agro-ecology: *C. argentea* grows well in the lowland humid forest zone at day temperatures of 30-35°C and night temperatures of 23-28°C. Growth is greatly retarded by temperatures below 20°C; consequently it does not grow well in the savannah region during the Harmattan period. It performs well under partial shade, especially in dry conditions. A well-drained sandy loam soil allows optimum growth, but celosia also grows well on marshy soil.

It is moderately resistant to drought and performs well under low water supply in the dry season, but severe drought promotes early flowering. The requirement during the rainy season is 500-1000 mm.

Production systems: *C. argentea* is produced throughout the country, but mainly in the agro-ecological zones of the south. The Ouémé Valley region in south-eastern Benin is known for its high production. In this region farmers produce it abundantly along the Ouémé river banks and seasonally flooded areas (charcterized by hydromorphic soils) during the dry season when the flood waters start to recede. It is grown on raised or flats beds, or ridges. Planting methods consist in direct sowing or seedling transplanting after sowing on nursery beds for 2-3 weeks. Direct sowing is used for harvesting by uprooting the whole young plants. Compared to direct sowing, transplanting gives more uniform, vigorous plants and higher yields. *C. argentea* is also grown in intercropping systems with other vegetables.

Darwin Initiative 15/003 project specimen: Assedji (Athiémé); Gome (Toffo); Agnavo (Dogbo); Gogbo (Adjohoun); Afomayi (Lalo); Gbeko (Dangbo); Akpate (Pobè); Agbandonou (Allada).

Utilisations: A leafy vegetable especially consumed in southern Benin, it is very appreciated by the Wémé socio-linguistic group. It is sold year-round in local as well as regional markets. The plant is occasionally collected from the wild by the Tchabè socio-linguistic group in the Sudano-Guinean zone in the central region of Benin. Leaves are nutrient rich (iron, vitamins, calcium) and consumers claim that it has antibiotic properties, "gives" blood, smoothes the skin, and "encourages" children's growth.

Threat on genetic resources: Not evaluated.

Further reading: Grubben and Denton (2004).

***Celosia trigyna* L.**

Syn.: *Celosia digyna* Suess., Trans. Rhodes.

Local names: Adjèmanwofoo (Tchabè, Idatcha), Tchobodouè (Mahi), Tètè (Wémé), Djendjé, (Holly), Gbonkèfru, Gbonkèfula (Boko), Gnambifan, Gnambinoufagarou, Sombékékéssou (Bariba), Nafanafa, Piwejeya (Gourmantché).

Common name: Célosie, Crête de coq (Français), Silver spinach, Wool-flower (English).

Description and variation: The plant is an annual herb up to 120(-180) cm tall. The stems are simple, branched, grooved or striate, glabrous or with few hairs, usually pinkish brown. The leaves are alternate, simple, without stipule, blade broadly ovate to narrowly lanceolate, tapering to truncate at base, acute to acuminate to apex, entire, glabrous to slightly short-haired below, pinnately veined. The inflorescence is an axillary and terminal simple or branched spike, formed of distant or approximate of cluster of flowers, bracteates, and silvery to pink. The flowers are small, bisexual, regular, 5-merous, tepals free, ovate elliptical, shortly mucronate. The fruits are ovoid capsules, circumscissile, few-seeded.

Status: Wild, however, said to be cultivated among Wémé socio-linguistic group in the Ouémé Valley.

Distribution: Kraké, Sahè-Abigo, Abomey, Lama, Dassa-Zoumè, Lou, Kalalé, Porga (Akoègninou *et al*.).

Habitat: *Celosia trigyna* occurs in forest clearings and grassland, along roadsides and rivers and as a weed. It is collected from fallows, farms and abandoned areas for consumption. In cultivation the plant requires up to 2500 mm annual rainfall and maximum temperatures of

25-30°C for optimum growth, and does not tolerate temperatures below 15°C. It grows on a wide range of soils, but prefers fertile well-drained loamy soils.
Darwin Initiative 15/003 project specimen collected from: Ayetedjou (Kétou); Akpate (Podè); Gogbo (Adjohoun) Ikemon (Ouèssè); Okunfo (Savè); Ileman (Dassa); Banigri (Tchaorou); Vossa (Ouèssè); Mareguinta (Kalalé); Bensekou (Kandi); Zougou-Pantrossi (Gogounou); Ganro (Bembèrèkè); Tanongou (Tanguiété); Soubado (Pèrèrè).
Reproductive biology: *C. trigyna* is propagated by seeds which germinate 4-5 days after sowing. The growing period is 90-120 days from planting to seed maturity. The flowers are pollinated by insects.
Utilisations: A leafy vegetable, finely cut in soups and sauces. Leaves are slightly bitter and mainly collected from the wild. They are occasionally consumed among Nagot socio-linguistic groups (Tchabè and Idatcha) in the Sudano-Guinean zone. Year-round consumption is common in the Bariba socio-linguistic group in the north-eastern part of the Sudanian zone. It does not have any market value.
Threat on genetic resources: Not evaluated.
Further reading: Grubben and Denton (2004).

Annonaceae

Annona senegalensis* Pers. ssp. *senegalensis
Syn.: *Annona arenaria* Thonn., Schumach. & Thonn, Bersk.

Local names: Batoko, Yogoti (Bariba), Guiparagnepi (Ani), Mutanmutimu, Timutiti (Otammari), Tchôtchôdè (Kotokoli).
Common names: Pomme cannelle du Sénegal, Corossol sauvage (Français), Wild custard apple (English).
Description and variation: A bush shrub up to 1-2 m tall, rarely exceeding this height. The leaves are entire, alternate and bluey-green. The young leaves are finely pubescent showing 9-15 lateral nerves, very marked on the lower face of blade. The flowers are isolated or in pairs, occasionally in threes, and yellow. The fruit is an edible ovoid berry, yellow to orange at maturity.
Status: Wild.
Habitat: *Annona senegalensis* is a common savannah species which grows in woody savannah in the Sudanian zone and on a wide range of soil types.
Distribution: Sémè, Sakabanssi, Nikki; Mondji gangan, Dassa, Gbananmè, Kandi; Kotiakou (Akoegninou *et al.*, 2006).
Specimen of Darwin Project collected from: Barikini (Bassila); Kodowari (Bassila); Penelan (Bassila); Moupemou (Natitingou); Akaradè (Bassila); Tchimbèrè (Bassila); Zougou-Pantrossi (Gogounou); Kèrèmou (Banikoara); Kpassa (Tchaourou); Tagaye (Natitingu); Poto (Banikoara).
Utilisations: Young leaves are collected from the wild in fallows by communities and used as vegetable. The species is said to have blood pressure regulating properties. The decoction of leaves of *A. senegalensis* plus leaves and roots of *Securidaca longepedunculata* is administered by mouth and in exterior applications against snake bites, generalised oedemas, constipation and aches.
Threat on genetic resources: Not evaluated.

***Hexalobus monopetalus* (A.Rich.) Engl & Diels**

Local names: Blaca (Fon), Gbèrékundu (Kotokoli).
Description and variation: *Hexalobus monopetalus* is a small tree up to 10 m tall, with cream-coloured flowers with a strong smell. The bark is fissured, dark brown, and dry, appears like deadwood, slash pale brown. The edible unripe fruit is green but turns red at maturity, star-shaped and ellipsoid in a cluster of 2.
Status: Wild.
Habitat: *Hexalobus monopetalus* thrives in savannah and on forest edges. It is also found in fallows on a wide range of soil types.
Distribution: Koda, Wari-Maro, Tamarou, (Tchaourou); Tchetti, Savalou; Parakou, Péhunko; Kotiakou, Natitingou (Akoegninou *et al.*, 2006).
Darwin Initiative 15/003 project specimen collected from: Sovlegni (Djidja); Tchimberi (Bassila).
Utilisations: A tree vegetable species with no market value at present. Young leaves are collected in fallows in the rainy season and consumed by Fon and Kotokoli communities in the Sudano-Guinean region, occasionally or rarely. The root powder of this tree is applied in fumigation against headaches. A decoction of root with the bark of *Ficus glumosa* (Moraceae) is administered by mouth against diabetes.
Threat on genetic resources: Not evaluated.

***Uvaria chamae* P.Beauv.**

Local names: Yraha (Idatcha).
Description and variation: *Uvaria chamae* is a shrub/climber up to 3 m tall with dark brown stem, flower light yellow, bracts with pale stigma. Its edible fruits are brown and in tuff at the top of a common peduncle.
Status: Wild.
Habitat: The plant is found in abandoned areas and fallows.
Distribution: Sèmè; Ahozon; Aguigadji, Kétou; Dan, Bohicon; Doutou, Houéyogbé; Pobè; Bassila; Pouya, Natitingou (Akoegninou *et al.*, 2006).
Darwin Initiative 15/003 project specimen collected from: Ileman (Dassa-zoum); Kpakpaza (Glazoue).
Utilisations: The root bark of this climbing plant is collected from the wild and eaten in soups among Idatcha communities by lactating women, in order to stimulate milk production. In addition the root bark, available year-round, is used as an anti-inflammatory medicine. It can be purchased in both local and regional markets, but generally for medicinal purposes. Indeed, a decoction of leaves and roots is taken by mouth to treat abdominal pains and stomach cramp by adults.
Threat on genetic resources: Not evaluated.

Araceae

***Colocasia esculenta* (L.) Schott**
Syn.: *Arum esculentum* L.

Local names: Glin (Fon, Mahi), Koko or Ikoko (Tchabè, Holly), Kokoobu (Waama), Mangani, Mankani (Idatcha, Ifè, Anii, Bariba), Yèkotenko (Otammari).
Common names: Colocase, Taro (Français, English).
Description and variation: *Colocasia esculenta* is an erect, perennial plant up to 2 m tall, but mostly grown as an annual; the root system is adventitious, fibrous and shallow; the stem is a massive corm storage (up to 4 kg), cylindrical or spherical, up to 30 x 15 cm, marked by a number of rings, usually brown, with lateral buds giving rise to cormels, suckers or stolons. The leaves are arranged spirally but in rosette, simple, peltate; the petiole is up to 1 m long, - with distinct sheath, blade cordate with rounded lobes at base, entire, thick, glabrous, with three veins. The inflorescence is spadix tipped by a sterile appendage, surrounded by a spathe and supported by a peduncle much shorter than the petiole. The flowers are unisexual, small, without perianth. The fruit is a many-seeded berry, densely packed and forming a fruiting head.
Status: Cultivated.
Agro-ecology: *Colocasia esculenta* does best in lowland areas where annual rainfall exceeds 2000 mm. It is well adapted to high temperatures and relative humidity, and rather tolerant to shade. It can withstand highly reduced soil conditions. In savannah areas, it is found in marshy soil and on river banks. Taro has cultivars adapted to grow both in dry land and flooded conditions.
Darwin Initiative 15/003 project specimen collected from: Barikini (Bassila); Wellan (Bassila); Kpassa (Tchaourou); Banigri (Tchaourou); Kodowari (Bassila); Dabou (Parakou**);** Ileman (Dassa-Zoumè); Ekpa (Savalou); Mondji (Savalou); Sovlegni (Djidja); Ikemon (Ouèssè); Vossa (Ouèssè); Kpakpaza (Glazoué); Zalimey (Zogbodomey); Bognongon (Zogbodomey); Moupemou (Natitingou); Pouya (Natitingou).
Production systems: *Colocasia esculenta* is cultivated in all agro-ecological regions of Benin. Vegetative propagation is the most used for this plant. Essentially four types of planting material are used: side suckers growing from the main corm, small unmarketable cormels, corm pieces, and setts or the apical 1-2 cm of the main corm with 15-20 cm of the leaf stalks attached. Cultivation in farms occurs in upland as well as in lowland areas. Production systems in lowland areas are oriented towards large-scale production, whereas in upland areas production is small-scale, home garden based.
Utilisations: *Colacasia esculenta* is primarily produced for the soft white fresh corms which are eaten boiled, fried or roasted as a side dish or for corms which are used for making fufu. Taro leaves and leaf stalks are also used as a leafy vegetable in soup and sauces. They are popular in some socio-linguistic groups especially in the period of new yam harvesting in the whole country. Its consumption occurs occasionally in the rainy season or year-round. Parboiled leaves can also be found sometimes in local markets. Anii communities claim it has medicinal properties.
Threat on genetic resources: Genetic variability in taro is low in Benin. Farmers grow many clones but loss of genetic diversity is minimal.
Further reading: Grubben and Denton (2004).

***Stylochaeton hypogeum* Lepr.**
Syn. *Stylochiton barteri* N.E.Br. (1901), *Stylochiton similis* N.E.Br.

Local names: Kelesuan (Boko), Kètèkuso (Bariba), Konkpoto (Fon, Goun).
Common name: Ground arum (English).
Description and variation: A small perennial herb with underground rhizomes. The leaves are in tuffs, simple; the petiole is 8-15(25) cm long, leaf sheath marked with horizonntal purple band; the blade is hastate to sagittate, basal lobes narrowly triangular. The inflorescence is a spadix 3-8 cm long, enclosed by an equally long spathe, partially subterranean and appearing before the leaves; the spathe only opens at the apex. The flowers are unisexual, sessile with cuplike perianth, the male flowers in upper part of spadix, female flowers 6-10 together in basal part of spadix. The fruit is a few-seeded globose berry, several cluster together in a subterranean, globose infructescence.
Status: Wild.
Habitat: The plants grows in open forest, shrub vegetation and savannah, on sandy or sandy clay soils, and also in flood plains.
Distribution: Dassa-Zoumè, Djougou, Ouinhi, N'dali, Nikki (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 project specimen collected from: Bensekou (Kandi); Ganro (Bembereke); Poto (Banikoara); Keremou (Banikoara); Kpassa (Tchaourou); Banigri (Tchaourou).
Utilisations: Inflorescences are collected from the wild and eaten in northern Benin among the Boko and Bariba socio-linguistic groups in the rainy season. The species is said to have medicinal properties. For example, a leaf decoction is drunk by pregnant women to stimulate the growth of the foetus.
Threat on genetic resources: *Stylochaeton hypogeum* does not appear to be under threat. Uses are limited and collection of the plant is not on a large scale.
Further reading: Grubben and Denton (2004).

***Xanthosoma maffafa* Schott**
Syn.: *Xanthosoma sagittifolium* (L.) K.Koch

Local names: Glin (Aïzo, Cotafon, Ouémè), Dogbiwo (Aïzo), Bangani or Mankani or Mangani (Bariba, Adja, Cotafon, Kotokoli, Anii), Ikoko (Holly), Kotubéré (Anii).
cCommon names: Oreille d'éléphant, Taro, Cocoyam, Makabo, Chou caraïbe (Français), ocoyam (English).
Description and variation: Usually enormous perennial, monoecious and erect herb up to 2 m tall, glabrous with oblong-conical to fusiform corm. The leaves are in rosette at corm apex never peltate. The blade is fleshy, ovate, 30-75 x 25-40 cm, sagittate at base, acuminate at apex and entire. The inflorescence is a cylindrical spadix with unisexual flowers, female flowers at base and male flowers in upper part. This upper part of the inflorescence or the apex is non sterile, and is surrounded by a spathe up to 15-25 cm long, pale yellow to dark purple or violet, with a hardy peduncle.
Status: Cultivated.
Agro-ecology: *Xanthosoma maffafa* is found in humid areas (in lowlands and along river courses). The cultivation of this species occurs in lowlands mainly in Guinean and Sudano-Guinean zones as well as in lowland areas of the savannah regions of Benin.

Darwin Initiative 15/003 project specimen collected from: Ganro (Bembereke); Zougou-Pantrossi (Gogounou); Penelan (Bassila); Kodowari (Bassila); Akarade (Bassila); Soubado (Perere); Assedji (Athiémè); Afomayi (Lalo); Agnavo (Dogbo); Gbeko (Dangbo); Gome (Toffo); Ayetedjou (ketou); Sohounmè (Houeyogbé); Agbandonou (Allada); Gogbo (Adjohoun); Akpate (Pobè).
Production systems: *Xanthosoma maffafa* does not produce mature and viable seeds. Moreover, for many cultivars, flowering does not occur. And thus, like *Colocasia esculenta* vegetative propagation is the most used in production systems in Benin.
Utilisations: Young and fresh leaves are used like the ones of *C. esculenta* in the Guinean and Sudano-guinean zones in Benin. Leaves which are not yet open are very appreciated, even more than those of *C. esculenta*. Parboiled leaves can be found sometimes in local markets, and the consumption of this species occurs more frequently than *C. esculenta*.
Threat on genetic resources: Not evaluated.
Further reading: Stevels (1990).

Asclepiadaceae

***Calotropis procera* (Aiton) W.T.Aiton**
Syn.: *Asclepias procera* Aiton

Local names: Kororou**,** Plompo (Bariba).
Common names: Arbre à soie, Pomme de Sodome, Bois petard, Mudar de grande taille (Français), Sodome apple (English)**.**
Description and variation: *Calotropis procera* is a semi-succulent shrub up to 5 m tall. The stems are corky with white latex. The leaves are large, ovate to obovate, sessile, bluey-green and embrace the stem. The inflorescences are terminal or axillary, flowers campanulate, corolla with purple coloration at apex. The fruit is simple, ovoid.
Status: Wild, domestication underway.
Habitat: A savannah shrub which grows on a large range of soil types. It grows also as a weed, but sometimes is spared in farms for its uses.
Distribution: Porto-Novo, Dassa, Cotonou, Sakabansi, Ouidah (Akoegninou *et al.* 2006)
Darwin Initiative 15/003 project specimen collected from: Dabou (Parakou); Zougou-Pantrossi (Gogounou).
Utilisations: *Calotropis procera* is used in traditional methods to process milk into cheese. However, its leaves are also used as an ingredient in sauces by Bariba socio-linguistic groups in the north.
Threat on genetic resources: Not evaluated.

***Leptadenia hastata* (Pers.) Decne.**
Syn.: *Cynanchum hastatum* Pers. *Cynanchum lanceolatum* Poir. (1811), *Cynanchum lancifolium* Schumach. & Thonn. (1827), *Leptadenia lancifolia* (Schumach. & Thonn.) Decne.

Local names: Suadobargaru (Bariba, Dendi, Boko), Fouadobaga, Karaouikpérou (Bariba), Leptanda (Dendi).
Description and variation: It is a climbing latex-containing herb, becoming woody at its base, with a strongly branched, finely pubescent stem becoming corky with age. The leaves

are opposite, simple, blade variable, usually ovate, entire and pubescent. The inflorescences are lateral, (sub)-sessile, cream coloured flowers, flower corolla up to 8 mm long, pubescent. The fruit is a pair of follicles, each one conical, up to 10 cm long, greenish and glabrous.
Status: Wild.
Habitat: *Leptadenia hastata* grows in dry savannah on sandy soil. It is also found as a weed in fallow, farm field and abandoned land.
Distribution: Ouidah; Kouandé; Kérou; Manta, Bounkounbé; Vers Ewé; Sohouignandji, Glazoué (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Zougou-Pantrossi (Gogounou); Tankougou (Kandi); Ganro (Bembèrèkè); Kèrèmou (Banikoara); Kargui (Karimama); Soubado (Pèrèrè); Dabou (Parakou); Maréguinta (Kalale).
Reproductive biology: The plant propagates from seeds and sometimes it is intentionally sown near houses so that it is available when needed.
Utilisations: Leaves, young shoots and flowers are eaten as a cooked vegetable and in sauces. Fresh leaves are collected year-round from the wild and consumed in many socio-linguistic groups in the central and northern regions of Benin. The plant is widely available in the bush and rarely sold. According to some communities, *Leptadenia hastata* has galactogenic properties and is good for lactating women. The latex is applied as an anti-biotic on wounds and administrated through the nostrils to relieve headaches. Decoctions and macerations of leaves and roots are used against complaints such as constipation, urethral discharge, gonorrhoea, stomach-ache and diarrhoea.
Threat on genetic resources: It is widespread in the Sudano-Guinean and Sudanian phyto-geographical zones and it is not under threat of genetic erosion in Benin.
Further reading: Grubben and Denton (2004).

***Pergularia daemia* (Forssk.) Chiov.**

Local names: Gbahunkeki (Adja), Ogbonfufu (Ifè, Idatcha).
Common name: Pergularia (English).
Description and variation: *Pergularia daemia* is a vigorous, climbing herbaceous plant with stems containing latex. The leaves are entire, ovate, and deeply cordate at base, glabrous or pubescent. The inflorescences show a long peduncle, cream-coloured flowers, corolla with semi-sagittate lobes; the fruits are usually in pairs, soft or smooth and ornamented.
Status: Wild.
Habitat: A savannah species but also found at forest edges.
Distribution: Sérou, Aguigadji, Forêt d'éwé, Sakété, Abomey, Savalou (Akoegninou *et al.*, 2006).
Darwin Initiative 15/003 project specimen collected from: Tamba (Savalou); Ekpa (Savalou); Ileman (Dassa-Zoumè); Afomayi (Lalo).
Utilisations: *Pergularia daemia* is used by the Adja, Idatcha and Ifè socio-linguistic groups in the Sudano-Guinean zone. Fresh young leaves and flowers are collected in fallows and consumed rarely in the rainy season. Leaves have a bitter taste and can be used in cough treatments.
Threat on genetic resources: Not evaluated.

Asteraceae

***Acmella oleracea* (Sw.) Cass.**
Syn.: *Spilanthes uliginosa* Sw.

Local names: Lifrubiale (Gourmantché), Yoritamkoobu (Waama).
Description and variation: *Acmella oleracea* is a small herbaceous plant, annual, up to 15-40 tall. The blade is lanceolate or elliptic. The inflorescence is a capitule ovoid with 4-6-seried verticilate bracts. The receptacle is long and cone-shaped. The flowers are yellow coloured with ligules. The fruit is a 2-4-aristed achene.
Status: Cultivated in the Waama and Gourmantché socio-linguistic groups of the north-western region of Benin.
Habitat: A pantropical species found in Benin in the Sudano-Guinean and Sudanian phyto-geographical zones. The plant grows in fields, ruderal or humid locations, fallows and in semi-aquatic prairies.
Distribution: Gamba, Okèmèrè towards Goho; Parakou, Perma, Malanville (Akoegninou, *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Pouya (Natitingou); Tanongou (Tanguieta); Batia (Tanguiéta); Cotiakou (Tanguieta).
Reproductive biology: The plant regenerates easily by seed.
Utilisations: Fresh leaves are frequently cooked, especially for lactating women. *A. oleracea* is a gallactogenic plant used as an ingredient in sauces (it is sometimes used as pepper substitute). It is available year-round and can be found in local markets.
Threat on genetic resources: It is not under threat of genetic erosion.
Further reading: (Dabade 2009).

***Ageratum conizoides* L.**

Local names: Fufurubo, Girifoonontu (Anii).
Common names: Herbe aux sorciers (Français).
Description and variation: An annual, erect herbaceous plant up to 15-80(100) cm tall. The stem is spindly, branched and finely pubescent. The leaves are opposite, ovate, finely pubescent, jagged, acute at apex. The inflorescence is a terminal corymbs arranged in grapes of 10 capitules. The flowers are composite, blue-pale coloured but sometimes white. The fruit is a linear achene, black, rounded by five pointed scale.
Status: Wild.
Habitat: This short-lived herb is very widespread in all agroecologocal zones of Benin. It is usually a weed in fields, fallows and abandoned areas.
Distribution: Porto-Novo; Lokossa; Affamè; Pobè; Kétou; Ita-Djèbou, Sakété; Ina, N'dali; Sakabansi; Dassa-Zoumè; Tanguiéta (Akoegninou, *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Wellan (Bassila); Barikini (Bassila).
Utilisations: The consumption of fresh leaves in a mixture with *Abelmoschus esculentus* has been recorded in the Anii communities. The consumption occurs rarely and happens in the rainy season. It is recommended for lactating women. A decoction of this plant and leaves of *A. esculentus* is used to treat malaria.
Threat on genetic resources: Not evaluated.

***Bidens pilosa* L.**
Bidens leucantha (L.) Willd.

Local names: Boboyo (Anii), Djankouikoui (Adja).
Common names: Bident bipenné, Sornet, Piquant noir, Herbe aiguille, Herbe villebague (Français), Black jack, Spinach needles, Hairy beggarticks (English).
Description and variation: An herbaceous plant, erect, annual, up to 20cm – 1.5 m tall, with slender, stiff and 4-angled stem and spreading branches. The leaves are decussately opposite, -pinnately 3-5-foliolate, usually serrate or crecate-serrate. The inflorescence is an axillary or terminal head, solitary or arranged in cymes. Ray flowers are absent, ligulate, sterile, white to yellow or pinkish. The disk flowers are tubular, bisexual. The fruit is a linear achene 4-13 mm long, 4-6 ribbed.
Status: Wild.
Habitat: *B. pilosa* grows freely in disturbed areas or as a weed in farm fields. It is widespread in Benin. The optimum temperature for germination is 25-30°C. It thrives in soils with pH ranging from 4-9 and can tolerate a very high salinity.
Distribution: Porto-Novo, Cotonou; Ita-Djèbou, Sakété; Abomey-Calavi; Dogbo; Bassila, Diépani; Parakou-Péréré, Wararou (Akoegninou, *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Agnavo (Dogbo); Wellan (Bassila).
Reproductive biology: *B. pilosa* only propagates by seeds. The seeds are not dormant and germinate within 3-4 days in moist soil at shallow depth.
Utilisations: Fresh leaves collected from abandoned areas and fallows are consumed as a vegetable by the Anii and Adja socio-linguistic groups. Consumption is rare and occurs in the rainy season in periods of food scarcity. It can, however, be found in local markets. It is also used as medicinal plant. Roots, leaves and seeds have been reported to possess antibacterial, anti-dysenteric, anti-inflammatory, antimicrobial, antimalarial, diuretic, hepato-protective and hypotensive properties.
Threat on genetic resources: In view of its widespread distribution and weedy nature, *B. pilosa* is not at risk of genetic erosion.
Further reading: Grubben and Denton (2004).

***Blumea viscosa* (Mill.) V.M.Badillo**
Syn.: *Conysa viscose* Mill.; *Blumea aurita* (L. f.) DC.; *Laggera aurita* (L.f.) Sch.Bip. ex Clarke ; *Pseudoconysa viscosa* (Mill.) d'Arcy.

Local names: Toloman (Ouémè, Aïzo).
Description and variation: An aromatic, annual, erect and glutinous herbaceous plant up to 30-100 cm tall. The stem is slightly woody, striate, with a short wing. It is very branched, densely silky and marked with aromatic glands. The leaves are alternate, initially in rosette in the lower part of the plant, ovate, serrate. The base of leaves is decurrent on the stem and possesses also glandulous points. The inflorescence shows several involucres per head, formed with many blue, white yellow or mauve coloured small flowers with narrow bracts. The fruit is a campanulate capitule up to 1cm large.
Status: Wild.

Habitat: *Blumea viscosa* is a common weed of farm fields in the humid savannah regions. It is widespread in Benin and is also found in wetlands, flood plains and disturbed areas.
Distribution: Sèmè; Ahogbaya, Mono; Agbado, Savalou; Agbohoutogon, Dan; Perma; Porga (Akoegninou, *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Gbeko (Dangbo); Gogbo (Adjohoun).
Reproductive biology: The plant propagates by seed.
Utilisations: Fresh leaves collected from wetlands when the water level has dropped are rarely or occasionally eaten by Ouémè and Aïzo communities in the Guinean zone. It is said to have a diuretic properties and is used by pregnant women.
Threat on genetic resources: Not evaluated.

***Chromolaena odorata* (L.) R. M. King**
Syn.: *Eupatorium odoratum* L.

Local names: Agatun (Holly), Abofrufru (Anii).
Common names: Herbe du Laos (Français), Jack in the bush, Siam weed (English).
Description and variation: *Chromoleana odorata* is a giant fast growing herb, perennial, very smelly, diffuse, usually liana shaped and with a rapid growth, up to 3.5 m tall. The stem is robust, cylindrical, erect and meanly pubescent. The leaves are opposite, ovate to triangular. The young leaves are purple but become green at maturity, glabrous to slightly pubescent. They possess many glandulous points from where a strong-smelling substance emerges. The inflorescence is a terminal composite corymb. The flowers are blue, mauve, white, with numerous small flowers arranged in peduncled graps.
Status: Wild.
Habitat: It is a weed which grows in fields and along roadsides. Widespread in the Guinean phyto-geographical zone of Benin, *C. odorata* is also found in other ecological zones and occurs in fallows, abandoned areas, disturbed savannahs and ruderal stations. It can be sometimes very noxious in plantations and crop fields.
Distribution: Houèto; Pobè; Davougon; Lama; Kraké; Igolo, Ifangni (Akoegninou, *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Kodowari (Bassila); Ayetedjou (Ketou).
Utilisations: Fresh leaves are used as an aromatic in soups by communities. The consumption of this leafy vegetable occurs rarely. The plant is credited with anti-malarial and anti-fever properties. It is also used to treat eye pains. The juice from macerated fresh leaves is an excellent antibiotic.
Threat on genetic resources: The plant is widespread and invasive.
Further reading: Ganglo and de Foucault (2006); Toure *et al.* (2008)

***Chrysanthellum indicum* DC. Ssp *afro-americanum* B.L. Turner**
Syn.: *Chrysanthelum americanum* auct.; non (L.) Vatke; *Chrysanthelum procumbens* Pers.; *Chrysanthelum senegalensis DC.*

Local names: Kitchininnin (Anii), Tcharipokoma (Waama), Adjahunkpi (Aïzo).
Description and variation: A small annual herb, branched, up to 15-30 cm tall, with compound leaves. The inflorescence is a hemispheric capitule up to 4-6 mm large, with 2-

seried involucre. The flowers are yellow or yellow-orange and outer ligulated. The fruit is an achene with a wing.
Status: Wild.
Habitat: The plant grows in ruderal stations, fallows and farms.
Distribution: Parakou; Boroné; Boukoumbé; Fombahoui, Nikki; Djougou; Kotopunga (Akoegninou, *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Pouya (Natitingou); Gome (Toffo).
Utilisations: Consumption of fresh leaves occurs rarely or occasionally in the rainy season. The species has anti-malarial properties and is used for the treatment of jaundice. It can be found in local markets.
Threat on genetic resources: Not evaluated.

***Crassocephalum crepidioides* (Benth.) S.Moore**
Syn.: *Gynura crepidioides* Benth., Hook.

Local names: Adjèfè (Ifè), Kogbo, Akogbo (Fon, Mahi, Aïzo, Cotafon), Gbolo (Tchabè, Idatcha, Holly, Ouémè, Aïzo, Adja), Huhoalawé, Hohunhogui (Mahi), Kiagbosu (Bariba), Olowohungobiè (Anii), Tihunkoroya (Waama).
Common names: Ebolo, (Français), Ebolo, Thickhead, Red-flower ragleaf, Fireweed (English).
Description and variation: *Crassocephalum crepidioides* is an annual, erect herbaceous plant, slightly succulent, up to 100(-180) cm tall. The stem is rather stout, soft, ribbed, very branched and pubescent. The leaves arranged spirally are simple to pinnately lobed or pinnatifid, stipules absent, elliptical to obovate-elliptical, irregularly serrate, lower leaves with short petiole, upper ones sessile. The inflorescence, a cylindrical head, is arranged in a terminal corymb, many-flowered. The flowers are bisexual, yellow or orange with reddish brown top and tubular corolla. The fruit is a dark achene of 2 mm long. In folk classification based on leaf traits and plant growth habit, communities distinguish two types of *Crassocephalum*: "female *Crassocephalum*" which correspond to *Crassocephalum crepidioides* and "male *Crassocephalum*" which is *Crassocephalum rubens*.
Status: Wild, domestication underway.
Habitat: A common weed in abandoned farm lands, plantations, and fallows. It is also found in ruderal stations, disturbed savannahs and swamps. It may be a dominant pioneer species in shifting cultivation system. It often occurs in yam fields established on newly colonised agricultural lands. This suggests that the species thrives on soils rich in organic matter.
Distribution: Ganvié; Pobè; Kétou; Covè; Dassa-Zoumè, Forêt de la Lama; Parakou (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Gogbo (Adjohoun); Gbeko (Dangbo).
Reproductive biology: Ebolo produces lots of seeds. Due to their fine silky pappus hairs covering the achene, seeds are easily dispersed by wind.
Utilisations: A widely consumed leafy vegetable. According to communities, this annual herb has an attractive smell. The tender and succulent leaves and stems are mucilaginous and are used in soup. It is especially popular among socio-linguistic groups of the southern and central regions of Benin. Sauces and soups cooked with this indigenous vegetable accompany a pounded yam dish in the rainy season, a period when the plant is most

available and abundant. Fresh bunches are sold in local and regional markets and represent with other vegetable species an important source of income for households. *Crassocephalum crepidioides* is more productive in terms of biomass. It is said to be tastier than *C. rubens*. Farmers of Gbeko and Gogbo in the Guinean ecological zone have undertaken the cultivation of *C. crepidioides*.

Threat on genetic resources: As a widely used resource in Benin, natural populations of *C. crepidioides* are overexploited and under threat. In few communities cultivation appears to be a response to the shortage of the resource in the wild.

Further reading: Grubben and Denton. (2004); Schippers (2004); Dairo and Adanlawo (2007).

***Crassocephalum rubens* (Juss. Ex Jacq.) S.Moore var. rubens**

Syn.: *Senecio rubens* Juss. Ex Jacq.; *Gynura cernua* Benth., Hook.

Local names: Adjèfè (Ifè), Kogbo, Akogbo (Fon, Mahi, Aïzo, Cotafon), Gbolo (Tchabè, Idatcha, Holly, Ouémè, Aïzo, Adja), Huhoalawé, Hohunhogui (Mahi), Kiagbosu (Bariba), Olowohungobiè (Anii), Tihunkoroya (Waama).

Common names: Brède Yoruba (Français), Yoroban bologi (English).

Description and variation: *Crasscephalum rubens* is an annual herb, erect, up to 30-150 cm tall. The leaves are spirally arranged and sessile, the stipules are absent. The lower leaves are elliptical, oblanceolate or obovate, either not lobed, rarely pinnately lobed whereas upper leaves are narrowly lanceolate, elliptical or ovate, not lobed or 6-8 lobed. The inflorescence is composed of up to 18 heads arranged in a terminal corymb. The flowers are bisexual. The fruit is a ribbed achene crowned by white pappus hairs. Two varieties are noticed in Benin: *Crassocephalum rubens* var. *rubens* and *Crassocephalum rubens* var. *sarcabasis*. The second variety is taller than the first one and can reach 1.5 m tall whilst the second variety is only 30-100 cm tall.

Status: Wild.

Habitat: The plant occurs as a weed in arable land, along riversides, roadsides. It is also found in fields, fallows, ruderal stations, and in prairies.

Distribution: Abomey-Calavi, Pobè, Azohluissé, Parakou, Tanguiéta, Kotiakou, Adjohoun, Davougon, Kpakpaliki, Forêts des Monts Kouffé, Banigri, Tchaourou (Akoegninou *et al.* 2006).

Darwin Initiative 15/003 project specimen collected from: Tamba (Savalou); Bognongon (Zogbodomey); Mondji (Savalou); Zonmon (Zangnanado); Vossa (Ouesse); Sovlegni (Djidja); Agnavo (Dogbo); Assedji (Athiémè); Cotiakou (Tanguieta); Gome (Toffo); Kpakpaza (Glazoué); Gogbo (Adjohoun); Ekpa (Savalou); Zalimey (Zogbodomey); Okunfo (Save); Ikemon (Ouesse); Wellan (Bassila); Ileman (Dassa-Zoumè); Banigri (Tchaourou); Pouya (Natitingou).

Reproductive biology: *Crassocephalum rubens* propagates by seed. Optimal germination conditions of the species are yet to be determined. Vegetative propagation is being tested at the horticultural programme of INRAB. Preliminary results indicate that propagation by stem cuttings 20-25 cm long obtained from mature shoots is possible. However, this method seems to favour early flowering and reduces leaf production.

Utilisations: It has the same utilisation as *C. crepidiodes* but it is less appreciated. The species is said to heal eye diseases in the Waama community of Cotiakou, northern Benin.

Threat on genetic resources: Similar to *C. crepidioides*.

Further reading: Grubben and Denton (2004); Schippers (2004); Dairo and Adanlawo (2007).

***Eclipta prostrata* (L.) L.**
Syn.: *Eclipta alba* (L.) Hassk.

Local names: Ahokponu (Cotafon), Guenandonu (Anii).
Common names: Éclipte blanche (Français), Eclipta, False-Daisy (English).
Description and variation: *Eclipta prostrata* is an annual herb up to 60 cm tall. The species name denotes the prostrate growth habit of the plant. The inflorescence is a head arranged in terminal hemispheric capitules 1-1.2 cm long. The flower ligules are white. The fruit is a rough achene; the pappus is absent or has a cupule shape.
Status: Wild.
Habitat: *Eclipta prostrata* grows in ruderal and post-cultural lands, along rivercourse, and riparian forests.
Distribution: Porto-Novo; Cotonou; Ahogbeya; Lama; Dassa-Zoumè; Sakabansi; Tanguieta (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Barikini (Bassila); Assedji (Athiémè).
Utilisations: Fresh leaves are collected by Cotafon communities of south-western Benin in the Guinean phyto-geographical zone and Anii communities in the north-west of the Sudano-Guinean zone. This minor vegetable is available in the rainy season.
Threat on genetic resources: Not evaluated.

***Emilia praetermissa* Milne-Redh.**

Local names: Tohonto (Cotafon), Etiologbo (Holly), Abonukodjoflonu (Kotokoli).
Description and variation: This is an annual herb, erect up to 1(-1.5) m tall, glabrous. Leaves are alternate, lower leaves petiolate, ovate, deltoid to pandurifomes. The inflorescence is a head arranged in terminal capitules. The fruit is a pubescent achene with white pappus.
Status: Wild.
Habitat: *Emilia praetermissa* grows in ruderal areas, fallows and roadsides, and also in wetlands.
Distribution: Houngbo; Pobè; Abomey-Calavi; Obomey; Lokossa; Lama; Covè; Samiondji, Tanéka (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Ayetedjou (Ketou); Akarade (Bassila).
Utilisations: Fresh leaves are collected in wetlands and disturbed areas and consumed as leafy vegetable. Consumption is rare, though the plant is available year-round. It does not have any market value. The plant is used in Kotokoli community as a tonic species that boosts energy and creates a feeling of strength and health.
Threat on genetic resources: Not evaluated.

***Emilia sonchifolia* (L.) DC. Ex Wight**
Syn.: *Cacalia sonchifolia* L.

Local names: Akogbobogo (Fon), Étiologbo (Holly), Tohonto or Yèwonto (Cotafon), Toguti (Adja).
Common names: Émilie (Français), Cupid´s shaving brush, Flora's paint-brush, Lilac tassel flower (English).
Description and variation: *Emilia sonchifolia* is an annual herb up to 16-50 cm tall, usually blue-green. The leaves are alternate, ovate, lower leaves petiolate. The inflorescence is a head arranged in terminal capitules 8-10 cm long, with white flowers. The fruit is a white achene, pubescent, with hairy pappus.
Status: Wild.
Habitat: The plant grows in ruderal lanscape, but also found in farm fields and in fallows as weed.
Distribution: Ouando; Abomey-Calavi; Davougon; Dassa; Bohicon; Gankpétin; Moudja; Parakou (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Assedji (Athiémè); Zalimey (Zogbodomey); Agnavo (Dogbo); Bognongon (Zogbodomey); Sohounmè (Houeyogbé).
Utilisations: Fresh leaves of *E. sonchifolia* are used as a vegetable in the rainy season. However, consumption is rare or occasional. The plant is widely present in the Guinean zone.
Threat on genetic resources: Not evaluated.

***Ethulia conyzoides* L.f.**

Local names: Hodokponu (Aïzo), Gnimangodoko (Ouémè).
Description and variation: *Ethulia conizoides* is an annual herbaceous plant, prostrate or erect, up to 1(-2) m tall. The leaves are elliptic, linear-lanceolate. The flowers are mauve or purplish, rarely white. The fruit is a glabrous achene without pappus.
Status: Wild.
Habitat: The plant is found in swamps, along rivercourses, humid lands in riparian forests and savannahs.
Distribution:Porto-Novo; Bonou; Sagon, Zagnanado; Djougou, Manta; Malanville (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Gbeko (Dangbo); Gogbo (Adjohoun).
Utilisations: Fresh leaves colleted from fallows or abandoned areas are used. This utilisation occurs rarely though the species is available year-round.
Threat on genetic resources: Not evaluated.

***Launaea taraxacifolia* (Willd.) Amin ex C.Jeffrey**
Syn.: *Sonchus taracifolius* Willd.; *Lactuca taraxacifolia* (Willd.) Schmach. Ex Hornem.

Local names: Alatotoé, Latotoé (Aïzo, Mahi), Yantoto (Fon, Mahi), Awonto, Wonto (Cotafon, Aïzo), Wontu (Adja), Èfo, Efognanri, Gnanri (Holly), Katakpa (Tchabè), Ododo (Idatcha, Ifè).

Common name: Laitue sauvage, Laitue africaine, Langue de vache (Français), African lettuce, Wild lettuce (English).
Description and variation: *Launaea taraxacifolia* is an annual or perennial herb, up to 1.5 m tall, with rhizome-es, erect with blue grey flowers. All of the plant parts contain white latex. The stem is glabrous, finely striate and smooth. The leaves are in basal rosette, alternate, sessile, pinnatilobed to pinnatifid. The inflorescence is an open, lax panicle, very ramified with yellow flowers; ligules are present.
Status: Wild.
Habitat: *Launaea taraxacifolia* is a common weed which grows in fields, fallows, abandoned areas and in ruderal landscapes. The species is widespread in the Guinean and Sudano-Guinean zones of Benin.
Distribution: Grand-Popo; Ouandio; Kpédjilé; Covè; Davougon; Sakété, Dassa; Parakou (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Tankougou (Kandi); Ayetedjou (Ketou); Ikemon (Ouesse); Zonmon (Zangnanado) ; Sohounmè (Houeyogbe); Assedji (Athiémè); Gome (Toffo); Okunfo (Save); Zalimey (Zogbodomey) ; Kpakpaza (Glaazoué); Agbandonou (Allada); Ileman (Dassa-Zoumè); Ekpa (Savalou); Vossa (Ouesse) ; Sovlegni (Djidja); Bognongon (Zogbodomey) ; Akpate (Pobe); Mondji (Savalou); Afomayi (Lalo); Agnavo (Dogbo).
Reproductive biology: Propagation of *L. taraxacifolia* is by seed or vegetative regeneration from rhizome cuttings. Vegetative regeneration and seed propagation are important and the plant is very invasive in some instances.
Utilisations: A leafy vegetable used by most communities in the south. It is available year-round and sold in local and regional markets. The species is being increasingly introduced in farming systems. Ongoing studies revealed probable nematicidal properties of *L. taraxacifolia* (Assogba Komlan *et al.* unpublished data). It is also used against vomiting, toothache and diabetes. The leaf decoction is used for wound treatments. The plant is also said to have magic properties. Consequently some people avoid consumption of this vegetable in order not to lose their magic power.
Threat on genetic resources: *Launaea taraxacifolia* is not under threat of genetic erosion. The plant regenerates very well. However, knowledge on better cultivation practices and more investigation on pesticide properties are needed to promote the utilization of this species.

Melanthera scandens (Schumach. & Thonn.) Roberty

Local names: Wlassi (Cotafon), Wlatchi (Adja).
Description and variation: *Melanthera scandens* is a sarmentous perennial herb, up to 3-4 m tall. The stem is quadrangular, very branched and rough to the touch. The leaves are opposite, widely ovate, entire, acuminate at apex, cordate or truncate at base and with a long petiole. The inflorescence is composed of solitary capitules, often axillary to upper leaves. Each head of inflorescence is up 2.5 cm large with tubular yellow to orange flowers. Ligules are present.
Status: Wild.
Habitat: A weed which grows in open forests, savannas and fallows. It may be a dominant pioneer species in shifting cultivation.
Distribution: Adjaha, Mono; Kpédjilé; Pobè; Kétou; Gobé, Savè; Akofodjoulé, Dassa (Akoegninou *et al.* 2006).

Darwin Initiative 15/003 project specimen collected from: Agnavo (Dogbo); Assèdji (Athiémé); Sohoumè (Houéyogbé).
Utilisations: It is mostly used in the Guinean zone. Available year-round, its consumption occurs rarely in cited locations. But leaves are sometime commercialised in local markets.
Threat on genetic resources: Not evaluated.

***Struchium sparganophora* (L.) Kuntze**
Syn.: *Ethulia sparganophora* L.; *Struchium africanus* (Steud.) P.Beauv.; *Sparganophorus sparganophora* (L.) Jeffrey

Local names: Tolo, Lingbohukoun (Cotafon), Toloman (Fon, Mahi, Aïzo), Achoukpa, Osundudu (Holly), Gninman (Ouémè), Dorontouan (Bariba).
Description and variation: *Struchium sparganophora* is a perennial herb up to 1 m tall. The inflorescence is composed of small sessile capitules, arranged into spherical glomerules. The flowers are pinkish violet or white. The fruit is an achene, glabrous with crown shaped pappus.
Status: Wild.
Habitat: This herbaceous plant is found in aquatic or semi-aquatic prairies, in swamps or riparian forests.
Distribution: Porto-Novo; Pobè; Kétou; Forêt de la lama; Savalou; Gbegourou, Goro (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Gome (Toffo); Bognongon (Zogbodomeey); Zonmon (Zangnanado); Ayetedjou (Kétou); Zalimey (Zogbodomey); Gbeko (Dangbo); Dabou (Parakou); Gogbo (Adjohoun); Assedji (Athiémé).
Utilisations: Fresh leaves are consumed mainly among socio-linguistic group of southern Benin. Available year-round, its consumption is rare and occurs in the dry season. Despite its used in many communities of the Guinean and Sudano-Guinean, the plant does not have a great market value.
Threat on genetic resources: Not evaluated.

***Tridax procumbens* L.**

Local names: Azuigbe (Cotafon), Djakpatagbe (Adja).
Common names: Coat buttons, Mexican daisy, Tridax daisy (English).
Description and variation: *Tridax procumbens* is an annual, sometimes perennial herb, prostrate or erect, up to 50 cm tall. The stem is slightly woody and pubescent. The leaves are simple, opposite, ovate, irregularly serrate, acute at apex, cuneate, at base, subsessile. The inflorescence is a solitary capitule, terminal, or axillary on the top of a fine peduncle up to 20 cm long. The flowers are yellow, yellowish or white cream coloured; 3-lobed and tubular ones are yellow.
Status: Wild.
Habitat: The plant is a weed widespread in fields, abandoned areas and along roadsides. It is also found in savannahs, in disturbed, post-cultural and ruderal areas. According to local knowledge, its occurence also indicates poor agricultural lands with low fertility.
Distribution: Cotonou; Kétou; Samiondji, Davougon; Sakabansi (Akoegninou *et al.* 2006).
Darwin Initiative 15/003 project specimen collected from: Sohounmè (Houeyogbé); Assedji (Athiémé); Agnavo (Dogbo).

Reproductive biology: Propagation is by seed, but vegetative regeneration by stem cuttings is also known for this species.
Utilisations: It is rarely or occasionally consumed in the rainy season. The plant is also used to feed rabbits, hence the name `azuigbe'.
Threat on genetic resources: Not evaluated.

***Vernonia amygdalina* Delile**
Syn.: *Gymnanthemum amygdalina* (Delile) Walp.

Local names: Adaca (Ifè), Aloman, Amanvivè (Fon, Mahi, Aïzo, Cotafon), Loman (Adja, Cotafon, Aïzo), Alomangbo (Ouémè), Anoukoro/ Eyouro (Holly), Aroman (Idatcha), Ééwo (Tchabè), Gousounouko (Anii), Kakawaabu (Waama), Kuanla (Boko), Mikpekagma (Gourmantché), Souaka (Dendi, Kotokoli), Tifinhòuti (Otammari), Touan (Bariba).
Common names: Vernonie, Vernonie commune (Français), Bitterleaf, Common bitterleaf (English).
Description and variation: *Vernonia amygdalina* is a shrub or small tree up to 1.8-15m tall. The stem is erect and covered with white hairs. The leaves are ovate-lanceolate to elliptic-lanceolate. The inflorescence is a head, arranged in terminal, compound, umbel-like cymes, up to 1 cm long. The flowers are bisexual, regular strongly exerted from the involucres. The fruit is an achene 1.5-3.5 mm long, pubescent and glandular, brown to black crowned by the much longer pappus bristles.
Status: Cultivated.
Agro-ecology: *V. amygdalina* is cultivated under full sunlight. It requires humid environment although it is fairly drought tolerant. Cultivation occurs on a wide range of soil types, but performs well in humus rich soils.
Darwin Initiative 15/003 Project specimen collected from: Agbandonou (Allada); Assedji (Athiémé); Bognongon (Zogbodomey); Mondji (Savalou); Vossa (Ouèssè); Zonmon (Zangnanado); Gome (Toffo); Sovlegni (Djidja); Tanongou (Tanguieta); Afomayi (Lalo); Zalimey (Zogbodomey); Sohounme (Tanguieta); Ileman (Dassa-Zoumè); Kargui (Karimama); Ekpa (Savalou); Kpakpaza (Glazoué); Agnavo (Dogbo); Cotiakou (Tanguiéta); Tagaye (Natitingou); Tchimberi (Bassila); Dabou (Parakou); Moupemou (Natitingou); Akpate (Pobè); Akarade (Bassila); Barikini (Bassila); Soubado (Perere); Okunfo (Savè); Ikemon (Ouesse); Ganro (Bembèrèkè); Pouya (Natitingou); Gbeko (Dangbo); Gogbo (Adjohoun); Tamba (Savalou); Tankougou (Kandi); Kodowari (Bassila); Zougou-Pantrossi (Gogounou); Bensekou (Kandi); Mareguinta (Kalale); Ayetedjou (Kétou); Penelan (Bassila).
Production systems: A traditional leafy vegetable produced in all agro-ecological regions of Benin. Two production systems can be distinguished. In urban and periurban agriculture, the plant is produced intensively in beds or in rows. The young plant is regularly pruned for commercialisation. This production system occurs often in big cities such as Cotonou and Porto Novo. In other agro-ecological regions, the species is grown in humid areas of homesteads or in home gardens. Bitterleaf is then planted together with other crops or used as hedge or living fence. Harvesting takes place by cutting leafy shoots, allowing new side shoots development.
Reproductive biology: Propagation of *V. amygdalina* is possible by seed. The use of mature stem cuttings is frequent.
Utilisations: *V. amygdalina* is one of the major vegetable species and one of the most used in communities' dishes. Bitterleaf is a highly appreciated vegetable and can be consumed in

various dishes. Fresh leaves can be boiled in soups mixed with egusi seeds or peanut paste. Leaves are often sold in local and regional markets, after being cut, parboiled and made into fist-size balls. Commercialisation of *V. amygdalina* employs a great number of women and contributes to many households' income. It is available year-round and of course frequently used in both rural and urban households. Furthermore, the species is said to have vermifugal, laxative, galactogenic, antibiotic, anti-malarial and anti-anaemic properties. As a very appetizing vegetable, it can also give relief from cough, fever, stomach-aches and tooth pains. According to communities, the vegetable is vitamin-rich and is good for diabetics, lactating women and children.

Threat on genetic resources: There is probably ample diversity in cultivars of *V. amygdaliana*. The crop is not under threat of genetic erosion. However, research on genetic variability, agronomy, processing and post harvest conservation of leaves is also needed.

Further reading: Grubben and Denton (2004).

***Vernonia colorata* (Willd.) Drake**

Syn.: *Eupatorium coloratum* Willd.; *Vernonia senegalensis* Less.; *Gymnanthemum coloratum* (Willd.) H.Rob. & B.Kahn

Local names: Agblélé, Gblélé (Aïzo), Gblé (Fon), Adoukoigbo (Holly), Arikoro (Idatcha), Xizihan, Dadohissrè (Mahi), Touan (Bariba).

Description and variation: *Vernonia colorata* is a shrub or a small tree like *V. Amygdaliana*. It can reach 8 m in height. The leaves are ovate to elliptic, tomentuous in lower part of blade. The inflorescence is a head arranged in terminal campanulated capitules. The corolla of flower is white coloured.

Status: Wild.

Habitat: *V. colorata* is found in savannas, forests and riparian forests. It also grows as a weed in fallows.

Distribution: Pahou, Ouidah; Kpédjilé; Lama; Kétou, Zagnanado; Djidja; Savalou; Goro; Tanéka (Akoegninou *et al.* 2006).

Darwin Initiative 15/003 Project specimen collected from: Gomé (Toffo); Ayétédjou (Kétou); Vossa (Ouesse); Agbandonou (Allada); Sovlegni (Djidja); Keremou (Banikoara); Mondji (Savalou); Kpakpaza (Glazoué).

Utilisations: Fresh leaves are available year-round and are sometimes sold in local markets. Consumption of the species is not common. It has same medicinal properties as *V. amygdalina*. In addition it is used to fight convulsion, urticaria and mycoses.

Threat on genetic resources: Not evaluated.

Basellaceae

***Basella alba* L.**
Syn.: *Basella rubra* L.

Local names: Abokpaba, Libokpabli (Gourmantché), Tchoosikpékéfa (Waama), Forukpètè (Anii), Yooda (Boko), Yoroukpé (Bariba), Djomankugbédé (Ouémè), Obaléran (Holly), Tokpodéyovoton (Fon), Yovogbomanhuégbé (Cotafon), Yovoglassi (Aïzo).
Common names: Baselle, Brède de Malabar, Epinard (Français), Indian spinach, Ceylon spinach (English).
Description and variation: *Basella alba* is a short-lived perennial herb up to 4 (-8) m long, succulent. The stem is twining, slender, smooth, green or purplish. The leaves are simple, alternate, fleshy, and ovate to heart-shaped, usually cordate at base, acute or acuminate at apex, dark green or purplish. The inflorescence is an axillary spike. The flowers, white, pink or red are bisexual, perianth fleshy. The fruit is a pseudo-berry containing a violet juice and is enveloped by the fleshy perianth. Red and green varieties are found in Benin.
Status: Cultivated.
Agro-ecology: *Basella alba* does well in lowlands. The optimal temperature range is 20-35°C. It tolerates high rainfall and survives short periods of drought. Water stress encourages early flowering. It grows well in a variety of soil types, but prefers humus-rich well drained soil.
Darwin Initiative 15/003 project specimen collected from: Pouya (Natitingou); Zalimey (Zogbodomey); Ileman (Dassa-Zoumè); Sohounme (Houeyogbe); Bognongon (Zogbodomey); Tanongou (Tanguieta); Gogbo (Adjohoun); Batia (Tanguiéta); Dabou (Parakou); Bensekou (Kandi); Cotiakou (Tanguieta); Gbeko (Dangbo); Penelan (Bassila).
Production systems: The species was probably introduced in Benin. Currently, it is cultivated in all agro-ecological zones. Both red and green varieties are cultivated in home gardens, and are available year-round. Except in big cities like Cotonou, *Basella alba* is grown as a perennial crop on living stakes, usually on a fence or on a hedge in intercropping systems. In urban agriculture, it is cultivated as a short-term crop of 2-4 months. Propagation is often by stem cuttings or by seeds. Propagation by seeds is often used for the annual crop. Production from seed gives a higher yield.
Utilisations: The green cultivar is commonly grown for its young shoots, which make a succulent, slightly glutinous vegetable. It is boiled, used as a potherb in soups or sometimes used as green salad. Thus, this traditional vegetable enters is found in many socio-linguistic groups and is frequently or occasionally consumed depending on the community. Fresh shoots are sold in the market. Red forms are commonly planted as ornamentals. It is reported that leaves are used by the Boko community of Bensekou for medico-magic purposes.
Threat on genetic resources: It is not under threat.
Further reading: Grubben and Denton (2004).

Bombacaceae

***Adansonia digitata* L.**
Syn.: *Adansonia sphaerocarpa* A.Chev.

Local names: Sonnan (Bariba), Kadara (Kotokoli), Fonla (Boko), Butuobu,Tituokari (Gourmantché), Gatongaboi (Anii), Kôô (Dendi), Kutunga (Zerman), Kpèborè (Waama), Mutorumu, Titookanti, Yètookpèrè (Otammari), Zinzoun (Cotafon), Kpassa (Fon, Mahi, Aïzo), Otché (Tchabè, Idatcha, Ifè, Holly).
Common names: Baobab, Pain de singe (Français), Baobab (English).
Description and variation: *Adansonia digitata* is a massive deciduous tree up to 10-25 m tall. The trunk often has a vast girth. The bark is smooth and variable in colour. The leaves are alternate, simple and digitate with 5 to 7 folioles. The flowers are white, and overlapping with a long peduncle. The fruit is a woody, indehiscent capsule, globose to ovoid or oblong cylindrical, covered by a velvety tomentum and filled with dry, mealy pulp, many-seeded. Morphological and genetic variations in baobab populations across phyto-geographical regions have been described in Benin. Variations in habit, vigour, and size, quality of the fruits and vitamin content of leaves also have been described.
Status: Wild but also planted and spared in/around villages and farm fields.
Habitat: Baobab prefers sandy topsoil above loamy subsoil. It tolerates poorly drained soils with heavy clay, but does not grow in deep sand. It is common in areas with an annual rainfall of 200-800 mm. The plant is widespread in Benin but is more frequent in the Sudano-Guinean and Sudanian phyto-geographical zones where it is protected in parklands.
Distribution: Malanville; Ewé; Soklogbo, Boukoumbé (Akoegninou *et al*., 2006).
Darwin Initiative 15/003 project specimen collected from: Loumbou-Loumbou (Karimama); Barikini (Bassila); Tankougou (Kandi); Zougou-Pantrossi (Gogounou); Kpassa (Tchaourou); Poto (Banikoara); Banigri (Tchaourou); Mareguinta (Kalale); Bensekou (Kandi); Kodowari (Bassilla); Akarade (Bassila); Tagaye (Natitinguo); Zalimey Zogbodomey); Kargui (Karimama); Ikemon (Ouesse); Ileman (Dassa- zoumè); Kpakpaza (Glazoué); Penelan (Bassila); Tamba (Savalou); Batia (Tanguiéta); Mondji (Savalou); Pouya (Natitingou); Ayetedjou (Kétou); Keremou (Banikoara); Vossa (ouèssè); Torozogou (Malanville); Sovlegni (Djidja); Bognongon (Zogbodomey); Gome (Toffo); Tanongou (Tanguieta); Sohounme (Houeyogbe); Ganro (Bembèrèkè); Soubado (Perere); Tchimberi (Bassila); Moupemou (Natitingou); Cotiakou (Tanguiéta); Dabou (Parakou); Ekpa (Savalou); Garou-Tedji (Malanville).
Reproductive biology: Seeds of baobab exhibit orthodox behaviour. Scarifcation facilitates germination. Natural regeneration is generally poor. Unaided germination of baobab seeds is also generally poor. As a result, farmers facilitate seedling growth in their courtyard until they are tall enough to be transplanted along the borders of their field. This vegetative propagation has the advantage that desirable characteristics like large leaves and good quality can be assured.
Utilisations: *Adansonia digitata* is a multipurpose tree of which fresh or dried and powdered leaves are used as an ingredient of soups and sauces. Plant parts are sold in local and regional markets. As leaves can be dried and conserved this vegetable is available year-round. But fresh leaves are more available in the dry season. The species is said to be very nutritious. Moreover leaves, barks, roots, and pulp of fruits are used to heal various diseases (e.g. stomach and ear aches, malaria, haemorrhoids, erectile dysfunction, infertility and menstruation difficulties, intestinal worms, injuries and eye trouble).
Threat on genetic resources: Populations are under threat of extinction due to climate change, regeneration difficulties and over-exploitation.
Further reading: Grubben and Denton (2004), Assogbadjo (2006), Assogbadjo *et al*. (2005a,b, 2006, 2008a,b).

***Bombax costatum* Pellegr. & Vuillet**

Syn.: *Bombax andrieui* Pellegr. & Vuillet, Lecomte ; *Bombax houardii* Pellegr. & Vuillet, Lecomte

Local names: Aagun (Tchabè), Akpatin (Idatcha), Ogufè (Holly, Ifè, Idatcha), Agnagna, Dèhouiman (Mahi), Kpatidewoun (Aïzo), Fola (Kotokoli), Gasokinmè, Gwô (Anii), Bufuobu (Gourmantché), Fookubu, Kugunfa (Waama), Kapoo (Boko), Mulannou (Bariba), Mukomu, Tikonfaati (Otammari).

Common names: Kapokier à fleurs rouges de savanne (Français).

Description and variation: *Bombax* is a savannah tree up to 10-25 m tall with a spiny trunk. The leaves are digitate, alternate. The flowers are solitary on a branch without leaves, red to orange coloured, rarely yellow. The fruit is an oblong to subglobose capsule.

Status: *Bombax costatum* is a wild savannah species. Domestication is underway in northern Benin.

Habitat: The tree usually found in dry forests and savannahs especially in woody savannah.

Distribution: Guéné; Malanville (Akoegninou *et al.* 2006).

Darwin Initiative 15/003 project specimen collected from: Cotiakou (Tanguiéta); Barikini (Bassila); Tchimberi (Bassila); Moupemou (Natitingou); Loumbou-Loumbou (Karimama); Keremou (Banikoara); Akarade (Bassila); Gome (Toffo); Pouya (Natitingou); Ikemon (Ouesse); Okunfo (Save); Zalimey (Zogbodomey); Ekpa (Savalou); Penelan (Bassila); Kodowari (Bassila); Vossa (Ouèssè); Agbandonou (Allada); Ileman (Dassa-Zoumè); Bensekou (Kandi); Tanongou (Tanguieta); Tagaye (Natitinguo); Wellan (Bassila); Mondji (Savalou); Batia (Tanguiéta); Kpakpaza (Glazoué).

Utilisations: The flower calyces are collected, dried, ground into powder and used as an ingredient in sauces by the above communities. It is recognized it by its red corolla that occurs in the dry season. Petals are more available in the dry season. It is widely used by communities in the Sudanian zone but occasionally or rarely consumed in the Guinean and Sudano-Guinean zones. It is sold in the Sudanian zone but does not have any market value in the Guinean zone. *Bombax costatum* is used to heal dysentery and eye complaints. Fresh leaves are used as a good anti-haemorrhagic. The plant is also used to treat fever. It is vitamin-rich and used also as antibiotic.

Threat on genetic resources: Natural populations are rare in non protected areas.

***Ceiba pentandra* (L.) Gaertn.**

Syn.: *Bombax pentandrum* L.; *Eriodendron pentandrum* (L.) Kurz.

Local names: Aagun (Ifè), Agungun (Idatcha), Guédéhunsu (Mahi), Guwa (Anii), Komiré (Kotokoli), Bupukambu (Gourmantché).

Common names: Fromager, Kapokier à fleurs blanches (Français), Kapok tree (English).

Description and variation: *C. pentandra* is a large deciduous tree up to 20-30 m in height. It can even reach 60 m tall. The bole is branchless for up to 35 m, straight, usually cylindrical, up to 200(–240) cm in diameter. The smooth, pale grey bark surface is usually scattered with conical spines 1–1.5 cm long. The alternate leaves are digitately compound with 7-9 sessile obovate to elliptical leaflets, petiole (3.5–)5–27 cm long and petiolules up to 3 cm long. The inflorescence is an axillary fascicle, often on leafless branches, 1–15-flowered. The bisexual flowers are white. The fruit is an ellipsoid to fusiform capsule with a slightly woody

pericarp, dehiscing with 5 valves or indehiscent, smooth-valved, brown when ripe, many-seeded.
Status: Wild but spared in farm fields and occasionally planted in villages.
Habitat: *Ceiba pentandra* occurs in woodlands and relic forests but sometimes as a protected tree in the agroforestry systems. It is a species found usually in moist and dense semi-deciduous forests. In its distribution area, the average annual rainfall is 750–3000 mm. The dry period should not exceed 4 months, and in this period a well-distributed rainfall of 150–300 mm is required.
Distribution: Abomey-Calavi; Forêt de la Lama, Sakété (Akoegninou *et al.* 2006)
Darwin Initiative 15/003 project specimen collected from: Loumbou-Loumbou (Karimama); Kpakpaza (Glazoué); Tamba (Savalou); Tchimberi (Bassila); Barikini (Bassila); Mondji (Savalou).
Reproducutive biology : *Ceiba pentandra* is propagated by seed, although it can also be grown from cuttings.
Utilisations: Fresh leaves are sold in local markets and used to make glutinous sauces when *Corchorus* species are scarce; hence its consumption occurs more in the dry season. The wood of this tree is used for the construction of pirogues. Leaves are said to have various medicinal uses.
Threat on genetic resources: not evaluated.
Further reading: Duvall (2008)

Boraginaceae

Ehretia cymosa Thonn. Ex Schum. var. *cymosa* Brenan.

Local names: Unranafunfunma (Anii), Zomali (Adja).
Description and variation: *Ehretia cymosa* is a shrub or small tree which can reach 12 m in height. The inflorescences are in terminal cymes arranged in corymbs shape. The flowers are white and the fruit red.
Status: Wild.
Habitat: *Ehretia cymosa* occurs in cleared land, savannah, abandoned areas and fallows.
Distribution: Tori; Cocotomey, Ouidah; Pobè; Samiondji; Sénahouyé, Dogbo; Mondji-Gangan, Dassa (Akoegninou *et al.* 2006).
Specimen of Darwin Project collected from: Barikini (Bassila); Afomayi (Lalo).
Utilisations: Fresh leaves of *Ehretia cymosa* are used in sauces by the Anii socio-linguistic groups in the north and the Adja in south-western Benin. However, they are rarely sold in local markets. The product is available year-round and is said to be very nutritious for nursing and pregnant women.
Threat on genetic resources: Not evaluated.

Heliotropium indicum L.

Syn.: *Heliotropium africanum* Schumach. & Thonn., Beskr.

Local names: Aburokuseri (Bariba), Akuéta (Ouémè), Chlochlodin (Cotafon), Koklossudinkpatcha (Aïzo, Mahi, Cotafon), Gukurutchibo (Anii), Igbéako (Tchabè), Kikpaovlan (Boko), Kookatchore (Waama).

Common names: Crête de coq, Herbe à verrues, Heliotrope de l'inde, Tournesol de l'inde, Herbe papillon (Français), Indian heliotrope, Sunflower (English).
Description and variation: An herbaceous plant, annual up to 30-90 cm tall. It is much branched, pubescent. The stem is robust, slightly woody and covered with dense and smooth hairs. The leaves are simple, alternate or opposite and ovate. The inflorescence is a long and spindly spike up to 20 cm tall which bears small blue pale to white flowers, arranged together on one side at the spike top.
Status: Wild.
Habitat: *H. indicum* grows as a common weed in humid locations, abandoned areas, in fallows and fields. It occurs most frequently around household backyards and disturbed and waste lands.
Distribution: Abomey-Calavi; Assanté; Bétérou; Konkombri; Kpédékpo; Pendjari. (Akoegninou *et al.* 2006)
Darwin Initiative 15/003 project specimen collected from: Gogbo (Adjohoun); Okunfo (Savè); Pouya (Natitingou); Assedji (Athiémé); Sohounme (Houeyogbé); Banigri (Tchaourou); Agbandonou (Allada); Mareguinta (Kalalé); Mondji (Savalou); Barikini (Bassila).
Reproductive biology: The plant propagates by seeds.
Utilisations: *Heliotropium indicum* is widespread but rarely or occasionally used as a vegetable. The plant is available year-round. It does not have a market value. Medicinal uses were reported in many communities. Leaves are used in healing mycoses, haemorrhoids, stomach aches, and regulation of blood pressure.
Threat on genetic resources: Not evaluated.
Further reading: Gurib-Fakim (2006).

Capparaceae

***Cleome gynandra* L.**
Syn.: *Gynandropsis gynandra* (L.)

Local names: Akaya, Kaya (Fon, Ifè, Mahi, Cotafon), Djéndjé, Èfooko (Holly, Nagot), Èfo (Idatcha, Ifè), Garsia (Bariba, Waama), Sabo (Adja), Foulbé (Dendi).
Common names: Moustaches de chat, Caya blanc, Brèbe caya (Français), Spiderplant, Cat's whiskers, Spider flower, Bastard mustard (English).
Description and variation: *Cleome gynandra* is an annual herb up to 60 cm tall, strongly branched, with a long taproot and few secondary roots. The leaves are alternate, glandular, palmately compound with 3-7 leaflets. The flowers are white to purple. The fruit is a linear and cylindrical capsule up to 12 cm x 1 cm.
Status: The species occurs wild but is domesticated and cultivated among many socio-linguistic groups in Benin.
Agro-ecology: *Cleome gynandra* is a leafy vegetable present in all agro-ecological areas of Benin. The species appears most in disturbed areas near buildings and home gardens. Wild populations are therefore found along roads, in fallows and abandoned areas. Cultivation is more important in southern and central regions of the country in Fon and Nagot socio-linguistic groups. It is grown and cultivated on a wide range of soil types with pH 5.5-7.0.

Darwin Initiative 15/003 Project specimen collected from: Banigri (Tchaourou); Ayetedjou (Kétou); Ekpa (Savalou); Zonmon (Zangnanado); Vossa (Ouèssè); Sovlegni (Djidja); Mondji (Savalou); Pouya (Natitingou); Zalimey (Zogbodomey); Assedji (Athiémè); Afomayi (Lalo); Agnavo (Dogbo); Tamba (Savalou); Kargui (Karimama); Akpate (Pobè); Ileman (Dassa-Zoumè); Kpakpaza (Glazoué).
Production systems: In cultivation, *C. gynandra* is produced in home gardens at a smale scale.
Utilisations: Tender leaves are widely consumed in sauces in the rainy season. Its consumption is more common in Fon and Yoruba and/or related socio-linguistic groups where it has an important market value. Hence it is under domestication/cultivation in Adja, Fon, Mahi and Holly regions. Moreover, it has a great value in traditional pharmacopea where it is used in healing ear and stomach aches, malaria and blood pressure regulation.
Threat on genetic resources: Not threatened in Benin.

***Cleome rutidosperma* DC.**
Syn.: *Cleome ciliata* Schum. & Thonn., Beskr.

Local names: Agariyana (Gourmantché), Aiya (Mahi), Eyitayi (Holly), Gbessabo (Adja), Gbetokaya (Cotafon), Tèwon (Waama), Ticefunti (Otammari).
Common names: Cleome à graines ridées (Français), Spiderplant, Fringed spiderflower (English).
Description and variation: An annual herb, up to 60-90 cm tall. The leaves are alternate, glandular, glabrous to sparsely pubescent, strictly three leaflets. The inflorescence is a raceme lax and not clearly demarked, bracts are similar to leaves. The flowers are usually white sometimes pinkish. The fruit is a linear, cylindrical capsule.
Status: Wild.
Habitat: *Cleome rutidosperma* grows principally at low altitudes in ruderal, humid, hot conditions. This pantropical herb is found in fallows, farm fields and on house refuse. The species is present in all phyto-geographical areas in Benin.
Distribution: Sèmè; Calavi; Togon; Djimè; Parakou; Pèrèrè; Wourarou; Kouandé (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Zonmon (Zangnanado); Assedji (Athiémè); Batia (Tanguiéta); Tanongou (Tanguiéta); Tagaye (Natitingou); Zalimey (Zogbodomey); Sohounme (Houeyogbé); Moupemou (Natitingou); Cotiakou (Tanguiéta); Ayetedjou (Kétou); Agnavo (Dogbo).
Reproductive biology: A monoecious species which propagates by seeds. Flowering and fruiting plants can be found throughout the year, although most abundantly in the rainy season.
Utilisations: *C. rutidosperma* is consumed in the western part of the Sudanian region. It appears to be consumed more widely than *C. gynandra*. It is sold in local markets and also used in traditional pharmacopea. Decoction of the whole plant is used in fighting malaria and fresh leaves and flowers in healing ear aches by Gourmantché communities. In Otamari communities it is said to be an appetizer and to have laxative properties. The plant is more available in the rainy season.
Threat on genetic resources: *Cleome rutidosperma* is not threatened with genetic erosion.
Further reading: Grubben and Denton (2004).

Crateva adansonii* DC. ssp. *adansonii
Syn.: *Crateva religiosa* Forst.f.

Local names: Honton-Azizuin (Cotafon, Aïzo).
Common names: Crateva sacré (Français).
Description and variation: A small tree up to 3-10 m tall. The leaves are 3-foliolate. The flowers are white and appear when the tree has lost its leaves. The fruit is spherical up to 3.5-5 mm large.
Status: Wild, domestication underway.
Habitat: is the species is found in riparian forests, swamp forests, savannahs and fallows, but also planted in villages, in homeyards. The species is well distributed in dry tropical regions. In Benin, it is present in all phyto-geographical areas.
Distribution: Lokossa; Pendjari; Mékrou; Dan tota; Bohicon; Gogounou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémè); Gome (Toffo).
Utilisations: *Craveta adansonii* is rarely used as a vegetable. It is available year-round and said to have medicinal properties. A decoction of leaves is used to treat malaria and abscess.
Threat on genetic resources: Not evaluated.

***Maerua angolensis* DC.**

Local names: Gbéssounan (Bariba), Tchindjinan (Kotokoli).
Description and variation: A tree or shrub up to 9 m tall or more. The bark is smooth, greey. The leaves are ovate, broadly elliptic or almost rounded. It is an attractive ornamental with white to pale yellowgreen flowers. The fruits are cylindrical and torulose.
Status: Wild.
Habitat: The tree occurs in savannah areas. In Benin, the species is found in the Sudano-Guinean and Sudanian phyto-geographical areas.
Distribution: Ndali; Pendjari; Tchanwassaga, Tanguiété; Perma; Konkombri, Tanguieta (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Akarade (Bassila); Soubado (Pèrèrè).
Utilisations: Tender leaves are used as an ingredient in sauces by women after childbirth to stimulate milk production and eliminate blood clots. The plant is used in healing oedema and artroses. However its consumption occurs rarely despite its year-round availability. It does not have any market importance.
Threat on genetic resources: Not evaluated.

Cochlospermaceae

***Cochlospermum planchoni* Hook.f.**

Local names: Busoron'bu (Waama), Lisayani (Gourmantché), Lomboukou (Kotokoli), Gbétu (Tchabè), Omronlugboko (Ifè), Tcholi (Idatcha).

Description and variation: A perennial rhizomatous subshrub up 1-1.5 m tall. The leaves are palmately lobed, alternate; the inflorescence is terminal; and the flowers are gold yellow. The fruit is an ovoid capsule.
Status: Wild.
Habitat: It occurs in open woody savannahs, and fallows.
Distribution: Zoundji, Tchèti, Savalou; Tamarou; Tanguiéta; Davougon; Méréguinta, Kalalé, Kouandé (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Okunfo (Save); Ekpa (Savalou); Batia (Tanguiéta); Tchimberi (Bassila); Kpakpaza (Glazoué); Ikemon (Ouèssè); Cotiakou (Tanguiéta).
Reproductive biology: Flowering occurs at the end of the rainy season. Propagation is by seeds, but the plant regenerates usually by rhizomes.
Utilisations: Rootstock is collected from the wild, cleaned, pounded and dried. The reddish powder obtained is used as colouring agent for sauces and soups. It is used in the same way as *Cochlospermum tinctorium* which is the mostly used in the Sudanian zone. The plant is available year-round but its consumption occurs rarely. It is sometimes sold in local markets in northern Benin. In the Ifè community it is used as an antivenom. Leaves are used in the treatment of dysentery by Anii and Ifè communities.
Threat on genetic resources: Not evaluated.

***Cochlospermum tinctorium* Perr. ex A.Rich.**
Syn.: *Cochlospermum niloticum* Oliv.

Local names: Busoron'bu (Waama), N'buburumin (Anii), Kota (Dendi, Zerman), Kubologun (Gourmantché).
Description and variation: It is a plant with a perennial stump up to 80 cm, semi-tuberous with woody subterranean rootstock which produces annual shoots in the rainy season. The leaves are alternate and palmately 3-5 lobed. The gold yellow coloured flowers appear after bush fires.
Status: Wild.
Habitat: The shrub is found in Sudanian woody and dry savannas, rocky and annually burnt regions.
Distribution: Monkassa, Garou, Mallanville; Kota, Kouandé; Kalalé; Kotopounga (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Garou-Tedji (Malanville); Kargui (Karimama); Penelan (Bassila); Loumbou-Loumbou (Karimama); Torozogou (Malanville); Kodowari (Bassila); Pouya (Natitingou).
Reproductive biology: Propagation is by seeds, but the plant regenerates usually by its perennial rootstock.
Utilisations: Use of *C. tinctorium* is recorded only in the north in the Sudanian ecological zone where it is widely and frequently used and in the same way as *C. planchoni.* Tender leaves are also eaten by Anii communities. The plant is available year-round and has a great market value. Medicinal utilisations were recorded in Anii and Ifè communities. *C. tinctorium* is also said to be employed against icterus by Waama communities.
Threat on genetic resources: Not evaluated.

Combretaceae

***Anogeissus leiocarpa* (DC.) Guill. & Perr.**
Syn. : *Conocarpus leiocarpus* DC.

Local names: Agni (Tchabè), Bokangala (Anii).
Description and variation: An evergreen shrub or small to medium-sized tree species up to 15-30 m tall. The alternate to nearly opposite leaves are obtuse, mucronate to acuminate at the apex, simple and entire. The inflorescence is a large capitule 6-15 mm with yellowish flowers. The flowers are bisexual and regular. The fruit is an akene prolonged with a wing (samara).
Status: Wild.
Habitat: The species is found in the whole country, both in dry forests and savannahs but also in disturbed woodlands. It prefers moist conditions.
Distribution: Davougon; Mono/Koufo; Djakotomè; Forêt de Wari-Maro, Kétou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Okunfo (Save); Barikini (Bassila); Wellan (Bassila).
Reproductive biology: The species propagates by seeds. The wind and other dispersal agents help in the dispersion of seeds.
Utilisations: Tender leaves are used as a vegetable in Anii communities while Tchabè communities use steam barks to prepare glutinous sauces. Its consumption happens occasionally even though it is available year-round. Leaves are also used as a treatment for diarrhoea.
Threat on genetic resources: Not evaluated.
Further reading: Andary (2005); Assogbadjo *et al*., (2009); Fandohan (2007).

Commelinaceae

***Commelina benghalensis* L.**

Local names: Tiborafuuti (Otammari), Tipiepiebri (Gourmantché), Zoula (Boko).
Common names: Comméline (Français), Blue commelina, Venus' bath, Benghal dayflower, Tropical spiderwort (English).
Description and variation: A prostrate or ascending, annual to perennial herb. The stem is laxly pubescent and has thin roots at lower nodes, short subterranean rhizomes. The leaves are ovate or elliptical with obtuse apex, pale green; the hairy spathes are solitary or piled up at the stem top. It has subterranean cleitogamous flowers which are bright blue or mauve. Genetic variation in populations across production systems has been described in Benin.
Status: Wild.
Habitat: An invasive and ruderal herb usually found in humid locations. It grows as well in savannah, disturbed areas, at forest edges, along roadsides, in secondary regrowth and fields, on abandoned areas and in home gardens. It can withstand prolonged drought. The plant is widespread in Benin where it causes serious problems in cotton fields.

Distribution: Calavi; Kalalé, Zoungbonou, Houéhogbé; Moudja, Dassa; Setto (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Batia (Tanguiéta); Tagaye (Natitingou); Tanongou (Tanguieta); Bensekou (Kandi).
Reproductive biology: The species reproduces by seeds as well as vegetative propagation from both stem and root cuttings. Seeds are produced above and below ground. Underground seeds germinate very well and thus control of this weed is complicated.
Utilisations: Consumption of *C. benghalensis* is recorded only in the Sudanian zone where it is used as a leafy vegetable. The local name in Gourmantché means "pig's food" and the plant is said to be used only in food shortage periods and does not have any market value. Gourmantché communities use to cook it in a mixture with fruits of *Abelmoschus esculentus* or *Hibiscus sabdariffa.* The sole consumption of *C. benghalensis* may give diarrhoea. Tender leaves are usually collected from the wild. They are most available in the rainy season but its consumption occurs more in the dry season.
Threat on genetic resources: Not threatened.
Further reading: Ahanchede *et al*. (1992); Grubben and Denton (2004)

Convolvulaceae

***Ipomoea aquatica* Forssk.**
Syn.: *Ipomoea reptans* Poir.

Local names: Èminnin, Èminnin-Odo (Holly), Tôwèli (Cotafon), Tôdokui (Mahi).
Common names: Kangkong, Liseron d'eau, Patate aquatique (Français), Kangkong, Water convolvulus, Water spinach, Swamp spinach (English).
Description and variation: An annual or perennial, fleshy, aquatic herbaceous plant. The stem is smooth, succulent and hollow stems root at the nodes. The inflorescence is an axillary cyme. The bisexual flowers are 7.5 cm, mauve, purple rarely white, with funnel-shaped corolla. The seeds are angular or rounded, densely pubescent.
Status: Wild.
Habitat: The plant occurs in wetlands as the folk taxonomy reveals (the prefixes "odo" or "tô" means river, pond or stream). *I. aquatica* is a pantropical species which grows floating on water or rooting at the stem nodes in marshy and wet soil often in river banks, swamps and pools.
Distribution: Karimama, Azowlissè; Boukonta, Mono; Cotonou; Djougou; Tchaourou; Pobè; Kétou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Zalimey (Zogbodomey); Assedji (Athiémè); Zonmon (Zagnanado); Sohounme (Houeyogbe); Ayetedjou (Kétou).
Reproductive biology: A monoecious plant which propagate by seed. Vegetative propagation by stem and root cuttings is possible as well.
Utilisations: Tender leaves are sometimes used as the base of certain sauces in the dry season, but it is available year-round. It is also known as rabbit's feed.
Threat on genetic resources: It is not under threat of genetic erosion.
Further reading: Grubben and Denton (2004).

***Ipomoea asarifolia* (Desr.) Roem. & Schult.**
Syn.: *Ipomoea repens* Lam.

Local names: Kpéhloussou, Sanro (Bariba).
Description and variation: *Ipomoea asarifolia* is a tall, perennial, prostrate herbaceous plant. The stem is robust, glabrous, and hollow. The leaves are suborbicular to ovate, cordate at the base with two glands at the base of blade. The flowers are funnel-shaped, mauve or red rarely whitish, up to 8 cm long and arranged in glabrous capsule.
Status: Wild. But *I. asarifolia* is said to be cultivated in Bariba communities of Ganro, Poto and Zougou-Pantrossi in the Sudanian region.
Habitat: It is a minor vegetable crop cultivated in home gardens in northern Benin among Bariba socio-linguistic groups. In the wild, the plant grows along rivers, rods and in disturbed steppes and is present in all agro-ecological areas.
Darwin Initiative 15/003 Project specimen collected from: Poto (Banikoara); Zougou-Pantrossi (Gogounou); Ganro (Bembèrèkè).
Reproductive biology: Propagates by seeds.
Utilisations: is the plant is available year-round but consumed rarely as leafy vegetable. The decoction of leaves is used to control blood pressure.
Threat on genetic resources: Not evaluated.

***Ipomoea batatas* (L.) Lam.**

Local names: Dokui (Mahi), Idoki, Èminnin (Holly), Loki (Idatcha, Anii), Lokikabo (Anii), Forowontèma (Waama), Kudoola (Boko), Tikòkònuonti, Timanuòti (Otammari), Kokotagu, Kotagu, Kudéhun (Bariba), Dundutchili (Dendi).
Common names: Patate douce (Français), Sweet potato (English).
Description and variation: *Ipomoea batatas* is a perennial herb with edible tuberous roots. The stem is creeping-ascending, rarely voluble, glabrous or slightly pubescent. The leaves are ovate, entire or palmately lobed to palmatifid. The flower corollas are funnel-shaped, pale mauve to white, 3-4.5 cm long arranged in capsules.
Status: Cultivated.
Habitat: *Ipomoea batatas* grows well in lowlands under high temperatures, full sunshine and abundant water. It is adapted to a wide range of soil conditions, but fertile soils with high level of organic matter are preferred. The optimum pH is 5.3 -6.
Darwin Initiative 15/003 Project specimen collected from: Ganro (Bembèrèkè); Ayetedjou (Kétou); Ileman (Dassa-Zoumè); Zalimey (Zogbodomey); Tagaye (Natitingou); Pouya (Natitingou); Vossa (Ouesse); Poto (Banikoara); Torozogou (Malanville); Bensekou (Kandi); Barikini (Bassila); Tankougou (Kandi); Akpate (Pobè); Moupemou (Natitingou); Zougou-Pantrossi (Gogounou); Wellan (Bassila).
Production systems: Sweet potato is a minor crop cultivated in all agro-ecological areas of Benin. The production occurs in home gardens or on a small scale in farmlands. However, in the Ouémé Valley the production of this crop is important. In this region, it is cultivated and commercialized to supply big cities of the country. Vegetative propagation by stem cuttings and pieces of tuberous root is most common.
Utilisations The plant is cultivated by farmers for its sweet tubers, but also used sometimes as a leafy vegetable. The vegetable is more available in the rainy season and said to be sold only by Pouya village in the Sudanian zone.

Threat on genetic resources: It is not under threat.

***Ipomoea triloba* L.**

Local names: Gbogbogui, Gbahunkeki (Adja), Kootibitirinan, Kuotina (Waama), Tide'ndeti, Tihòrenhònti (Otamari).
Common names: Three-lobed morning glory (English).
Description and variation: An annual herb, voluble or creeping and glabrous. The leaves are entire, 3-lobed. The inflorescence is umbeliform, flower sepals with long cils, apiculate and corolla up to 2 cm long, white, mauve or pink.
Status: Wild.
Habitat: It grows in ruderal stations, along roadsides and in swamp edges. It is also found in disturbed lands around buildings, in farms and fallows.
Distribution: The herb is well spread in Benin and found throughout the country: Cotonou; Dassa-Zoumè; Kétou; Pobè; Tanguiété (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Cotiakou (Tanguieta); Tagaye (Natitingou); Afomayi (Lalo); Pouya (Natitingou); Moupemou (Natitingou).
Utilisations: The plant is frequently used as leafy vegetable in Waama and Otammari communities. It is even sold in Pouya local market. The resource is abundantly available in the rainy season. Leaf decoctions are used to treat stomach complaints.
Threat on genetic resources: It is not under threat.

***Ipomoea vagans* Baker**
Syn.: *Ipomoea sulphurea* Hochst. Ex Choisy

Local names: Ganapèn'ta (Anii), Nantorobu (Waama), Hansihanga (Dendi).
Description and variation: Annual herb with prostrate stem, rarely voluble, slightly woody at base, pubescent. The leaves are simple. The flowers are small, axillary, solitary or in fascicules, funnel-shaped with white corolla. The fruit is a capsule ovoid, glabrous and seeds are covered with a soft-silvery matter.
Status: Wild.
Habitat: *Ipomoea vagans* is a full sun species which grows in open savannah, disturbed woodlands and in fallows.
Distribution: Bodjékali; Malanville (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Pouya (Natitingou); Wellan (Bassila); Torozogou (Malanville).
Reproductive biology: Propagation is by seed.
Utilisations: Rural communities collect tender leaves for to prepare sauces. However, consumption occurs rarely or occasionally even if the species is available year-round. The Anii community of Wellan uses the plant for its galactogenic properties.
Threat on genetic resources: It is not under threat.

Cucurbitaceae

***Citrullus lanatus* (Thunb.) matsum. & Nakai subsp. *mucosospermus* Fursa**
Syn.: *Colocynthis citrullus* (L.) O.Ktze.; *Momordica lanata* Thunb.

Local names: Agoussi, Sonki, Wèwèssou (Bariba), Agusi, Ituni, Ewegoussi (Gourmantché, Holly), Aroowotchè (Idatcha), Dopua (Boko), Égusi bara (Tchabè), Esidakika, Essèdakaka, Isidikaka (Anii), Goussi (Aizo), Guchi, Kilovi (Adja), Itchegba (Idatcha, Holly), Kaka Arotchè (Ifè), Kotchiodo (Kotokoli), Lotché, Tchègba (Mahi), Tchègba (Fon), Tinacanti, Tinoncanti (Otammari).

Common names: Pastèque égousi, Melon à pistache (Français), Egusi melon (English).

Description and variation: The species is an annual liana, creeping on the ground. The leaves are pennatilobed and alternate. The species includes three subspecies with subsp. *mucosospermus* used as egusi in West Africa. This subspecies has fruits with inedible flesh but the seeds. The seeds are yellow and bordered with a whitish (sometimes black) edge. A small-seeded type (known as Neri) is cultivated in Ghana and in north-western Benin.

Status: Cultivated.

Agro-ecology: *Citrullus lunatus* subsp. *mucosospermus* performs better in the savannah region than in the wet forest zone. The annual rainfall requirement is at least 700-100 mm and daytime temperature is 28-35°C. It is cultivated on a wide range of soil types but a well-drained soil with pH 6-7 is more adequate.

Darwin Initiative 15/003 Project specimen collected from: Moupemou (Natitingou); Banigri (Tchaourou); Kpassa (Tchaourou); Tagaye (Natitingou); Ayetedjou (Kétou); Zalimey (Zogbodomey); Pouya (Natitingou); Batia (Tanguiéta); Mondji (Savalou); Bognongon (Zogbodomey); Barikini (Bassila); Kpakpaza (Glazoué); Wellan (Bassila); Okunfo (Save); Soubado (Pèrèrè); Tchimberi (Bassila); Vossa (Ouèssè); Akarade (Bassila); Gbeko (Dangbo); Ganro (Bembèrèkè); Tamba (Savalou); Akpate (Pobè); Ekpa (Savalou); Tanongou (Tanguiuéta); Agbandonou (Allada); Ileman (Dassa-Zoumè); Afomayi (Lalo); Agnavo (Dogbo); Dabou (Parakou); Tankougou (Kandi); Zougou-Pantrossi (Gogounou); Mareguinta (Kalale); Kodowari (Bassila); Sovlegni (Djidja).

Production systems: Cultivation of egusi melon occurs in all agro-ecological regions of Benin. Howver, the species is more important in central Benin where farmers allocate large areas of land for its production. In these communities, *C. lanatus* is cultivated in fields or in home gardens, both in monoculture or in association with other crops. The plant is a green fertilizer mostly included in rotation systems when the soil has become poor.

Utilisations: *Citrullus lanatus* subsp. *mucosospermus* is grown mainly for its seeds. Crushed seeds are used to thicken tomato soup or cooked together with other leafy vegetables. Seeds are very rich in proteins and oils and are consequently sometimes called ''the poor's meat''. Although few statistics are available, the crop is part of a regional trade system and the supply chain includes countries such as Benin, Nigeria, Ghana, and Côte d'Ivoire. The regional market of Glazoué in Benin is an important trading place for egusi. According to producers of these localities, egusi ranks high among cash food crops. In some communities the use of the leaves of *C. lanatus* also has been recorded. In other communities, the consumption of seed is said to increase milk production by nursing mothers. Other plant parts are used also to treat stomach-aches or used as a laxative.

Threat on genetic resources: In Benin, most producers cultivate and maintain their own seed collections. There is apparently no threat on the genetic resources of the crop which is maintained by individual farmers.

Further reading: Grubben and Denton (2004), Achigan-Dako *et al.* (2006, 2008b).

***Cucumeropsis mannii* Naud.**

Syn.: *Cladosicyos edulis* Hooks.f.; *Momordica procera* A.Chev.; *Cucumeropsis edulis* (Hook.f) Cogn.

Local names: Amélikaka (Anii); Atoo (Holly); Azohan, Goussi (Aizo); Égusi Itoo (Tchabè); Gbessenou, Guérou, Guinru, Kasoungui (Bariba); Ito (Idatcha); Kaka n'to, Kaka Itoo (Ifè); Kèrè (Kotokoli); Pinwè (Boko); Tchegba (Adja); Tooku (Fon); Zohan, Zounhan (Mahi).
Common names: Égusi; Égusi-itoo (Français), White seed melon, Dark egusi (English).
Description and variation: *Cucumeropsis mannii* is a monoecious, giant and climbing herb up to 5(-10) m long. The corolla of flowers is yellow. The male flowers are arranged in an axillary umbelliferous raceme. Female flowers are solitary in leaf axils. The fruit is an ellipsoid to obovoid berry 17-25 x 8-18 cm, smooth, green to pale yellow or creamy white. The species exhibits little morphological variation.
Status: Cultivated.
Agro-ecology: Like *Citrullus lunatus*, *Cucumeropsis mannii* is cultivated in all agro-ecological areas of Benin. However, it requires soils rich in organic matter.
Darwin Initiative 15/003 Project specimen collected from: Kodowari (Bassila); Ayetedjou (Kétou); Agbandonou (Allada); Okunfo (Save); Ikemon (Ouèssè); Zougou-Pantrossi (Gogounou); Ganro (Bembèrèkè); Soubado (Pèrèrè); Banigri (Tchaourou); Ileman (Dassa-Zoumè); Kpakpaza (Glazouué); Tamba (Savalou); Ekpa (Savalou); Tankougou (Kandi); Tchimberi (Bassila); Akarade (Bassila); Zalimey (Zogbodomey); Mareguinta (Kalale); Afomayi (Lalo); Sovlegni (Djidja); Bognongon (Zogbodomey); Mondji (Savalou); Vossa (Ouèssè).
Production systems: Cultivation of egusi-itoo takes place at the beginning of the rainy season. It is produced in association with other crops (yam, palm tree, cassava, maize, sorghum, etc.). Cultivation of this crop requires stakes and can last about eight months. Fruits are harvested when stems are dried and fruits have changed colour from green to creamy white.
Utilisations: Crushed seeds of *C. mannii* also are used as sauce thickener or prepared as 'egusi balls' in sauce. The species is said to be the true egusi and more appreciated for its organoleptic properties than other egusi species. The use of tender leaves of *C. mannii* as a leafy vegetable also is reported in Adja communities.
Threat on genetic resources: Although *C. mannii* is well appreciated for its organoleptic qualities, its production is declining for a number of reasons including its low yield in addition to the fact it has a long production cycle. Moreover, improved varieties are unavailable and seed production and distribution of local varieties is not organized.
Further reading: Burkill (1985); Grubben and Denton (2004); Achigan-Dako *et al.* (2006, 2008b).

***Cucurbita maxima* Duchesne**

Local names: Éléguédé (Tchabè), Gnianrou (Bariba), Leptanda (Dendi), Lifèli (Gourmantché), Tipeti (Otammari).
Common names: Courge, Potiron, Courge turban (Français), Pumpkin, Winter squash (English).
Description and variation: *Cucurbita maxima* is an annual, herbaceous, creeping liana. The stem is more or less cylindrical. The leaves are simple, reniform. Pedicels of male flowers are

long (up to 23 cm long), pedicels of female flowers shorter. The fruit is very big and can reach 50 kg with yellow to orange flesh.
Status: Cultivated.
Agro-ecology: A tropical species which tolerates low temperature and drought. Water requirement is limited. The plant prefers soils rich in organic matter. Application of fertilizers improves yields.
Darwin Initiative 15/003 Project specimen collected from: Ikemon (Ouèssè); Poto (Banikoara); Torozogou (Malanville); Loumbou-Loumbou (Karimama); Tagaye (Natitingou).
Production systems: In Benin *C. maxima* is cultivated from the Sudano-Guinean to the Sudanian regions. The crop is mostly found in home gardens around households. No stake is needed and the crop is rarely associated with other crops, because it is a good soil cover plant.
Utilisations: It is cultivated for its fruit which is cut in slices and cooked in sauce. The use of *C. maxima* as a leafy vegetable occurs mostly in north Benin among Bariba, Dendi, Otamari and Gourmantché socio-linguistic groups. Leaves are frequently consumed by these communities. Consumption of flowers and seeds is also reported but apparently very rarely. Commercialisation of parts or products of this plant occurs in local and regional markets but only fruits are sold. *Cucurbita maxima* is also used by the Tchabè community in the central region of the country although the consumption is scarce among this socio-linguistic group.
Threat on genetic resources: Resources are still conserved on farm by individual farmers and genetic resources of *C. maxima* are not under threat in Benin.
Further reading: Burkill (1985), Grubben and Denton (2004), Schippers (2004).

Cucurbita pepo L. and *Cucurbita moschata* Duchesne

Local names: Aguidi, Ewe Eleguede (Holly), Aguidigbèdjè (Idatcha), Dipeeri, Tipétipésiiti (Otammari), Gboo (Tchabè), Kanhin, Kansin (Boko), Kufelugu, Tifefari (Gourmantché), Ninnibu (Waama), Wianru (Bariba).
Common names: Citrouille, Courgette, Courge, Pepon (Français), Courgette, Zucchini, Summer squash, Vegetable marrow, Pumpkin (English).
Description and variation: The two species differ by the fruit stalk but are called with the same local names. Both species are annual, herbaceous and a creeping liana with more or less angular stem. The leaves are simple and palmately lobed. The flowers are yellow, 10 cm long. Sometimes the fruit reaches 50 kg in weight. There is a wide variety of shapes and colours.
Status: Cultivated.
Agro-ecology: *Curcubita pepo* and *C. moschata* like *C. maxima* are tropical species which tolerate low temperatures and drought. These species also prefer soils rich in organic matter.
Production systems: Like *C. maxima*, *C. pepo* is mostly found in home gardens and rarely in fields. No stake is needed. The species are cultivated in every agro-ecological zone in Benin but primarily in the northern part of the country.
Darwin Initiative 15/003 Project specimen collected from: Zalimey (Zogbodomey); Ileman (Dassa-Zoumè); Moupemou (Natitingou); Akpate (Pobè); Ikemon (Ouèssè); Mareguinta (Kalale); Bensekou (Kandi); Batia (Tanguiéta); Pouya (Natitingou); Tanongou (Tanguiéta); Tagaye (Natitingou); Kpassa (Tchaourou).
Utilisations: The immature fruits of *C. pepo* are the main product. They are consumed as a vegetable either boiled or fried or stuffed. Mature fruits are used like those of *C. maxima*.

Consumption of leaves and other plant parts is frequent, rare or occasional depending on the socio-linguistic group. The plant products are available year-round but mostly in the rainy season. The major part of the harvest is consumed by household members. However, a part of the production (mainly fruits) is commercialized in local and regional markets.
Threat on genetic resources: Like *C. maxima*, *C. pepo* and *C. moschata* are not under threat of erosion.
Further reading: Burkill (1985), Grubben and Denton (2004), Schippers (2004).

***Lagenaria siceraria* (Mollina) Standl.**
Syn. : *Cucurbita lagenaria* L.; *Lagenaria vulgaris* Ser.

Local names: Accra koun (Fon), Aklamkpa kaku, Kaku (Mahi), Akluibugula (Gourmantché), Atooilè, Yebe, igba (Holly), Batamaé (Dendi), Cacaacra, Kaka (Idatcha), Egusi accra, Egusi ilè, Egusi kaka, Egusi ougba (Tchabè), Gbaka, Gbesseru, Gboro, Kasonki, Kasoungui, Kokpaki, Kpékonan (Bariba), Guchi (Adja), Kagoussi (Aizo), Kaka acra, Kaka aklankpa, Kaka igba, Kaka ungba (Ifè), Ninnibu, Yanditiré (Waama), Toumougou, Tumugu (Boko).
Common names: Calebasse, Courge blanche, Gourde massue, Gourde bouteille (Français), Bottle gourd, Calabash gourd, Common gourd, White-flowered gourd (English). However, local names refer to a specific cultivar known as aklamkpa (Achigan Dako *et al.* 2006) and used as egusi.
Description and variation: *Lagenaria siceraria* is an annual plant with alternate leaves and climbing or creeping on the soil. The flower corollas are white, whitish yellow to dark green or brown at maturity. The species exhibits a huge variation of fruit shape, size, and colour. Cultivars collected in Benin and Togo are clustered in three major groups based on morphological traits. Genome size variation analysis revealed two cytotypes with cultivar Aklamkpa (egusi gourd) having a higher DNA amount (Achigan Dako *et al*. 2008c,d).
Status: Cultivated.
Agro-ecology: Tropical plant which can be found from 0 to 2500 m altitude. Many escapes from cultivation are particularly found along roadsides or abandoned areas.
Darwin Initiative 15/003 Project specimen collected from: Sovlegni (Djidja); Mondji (Savalou); Batia (Tanguiéta); Ayetedjou (Kétou); Kargui (Karimama); Kpakpaza (Glazoué); Okunfo (Save); Ikemon (Ouèssè); Dabou (Parakou); Kpassa (Tchaourou); Banigri (Tchaourou); Soubado (Perere); Afomayi (Lalo); Zalimey (Zogbodomey); Akpate (Pobè); Gome (Toffo); Ileman (Dassa-Zoumè); Ekpa (Perere); Tamba (Savalou); Vossa (Ouèssè); Bognongon (Zogbodomey); Zougou-Pantrossi (Gogounou); Ganro (Bembèrèkè); Cotiakou (Tanguieta); Bensekou (Kandi); Mareguinta (Kalale); Pouya (Natitingou).
Production systems: *Lagenaria siceraria* is cultivated in almost all agro-ecological zones of Benin, but the central region is known for being the major producer of that crop. Large calabash varieties are mostly cultivated in yam farms, whereas small fruiting varieties seeming less shade tolerant are grown in open lands usually in monoculture.
Utilisations: Common gourd is cultivated for a wide range of utilisations including food, storage, ustensils, medicinal, decoration, music instruments depending on cultivars and customs. A number of cultivars are produced for the consumption of the fresh fruit which is cut into slices and cooked in sauce. Elongated cultivars of fruits covered with warts are particularly consumed in many communities (e.g. Bariba, Waama). Seeds of egusi gourd are abundantly produced and communties in Benin consume them in many ways. Kernels are crushed after removing the teguments and added to soups and stews. Like *Citrullus lanatus*,

L. siceraria has a great market value, and is commercialized in local and regional markets. Leaves are used to calm dizziness. Roots and fruits are sometimes used as a purgative.
Threat on genetic resources: It is not under threat.
Further reading: Grubben and Denton (2004); Achigan Dako *et al*. (2008b).

***Luffa acutangula* (L.) Roxb.**
Syn.: *Cucumis acutangulus* L.; *Cucurbita acutangula* (L.) Blume

Local names: Tikpinsindi (Gourmantché), Yèsoso (Otamari).
Common names: Liane torchon, Eponge végétale torchon, Papengaye (Français), Angled loofah, Ribbed gourd, Chinense okra (English).
Description and variation: *Luffa acutangula* is a monoecious, climbing or creeping plant. The stem is angular. The flowers are yellow, males ones are in long racemes and female ones solitary and densely pubescent. The fruit is a dry and fibrous capsule dehiscent by an apical operculum.
Status: Cultivated.
Agro-ecology: The plant prefers a seasonal climate. Sowing in the dry season is preferred to the one in rainy season. It grows well on house refuse.
Darwin Initiative 15/003 Project specimen collected from: Tanongou (Tanguieta); Tagaye (Natitingou).
Production systems: The production of *L. acutangula* is observed mainly in Atacora region close to Burkina Faso where the species in particularly important in local diets and is even known as the ''queen's okra''. Cultivation of the species requires stakes. For this reason the crop is grown on fences, close to dead trees, etc. The monoculture of this species has not been observed.
Utilisations: Gourmantché and Otamari communities in the north-west frequently consume immature fruits as a vegetable. Consumption takes place in the rainy season. Among the Otamari, the plant products are said to be commercialized in local market. Consumption of stem tops with young leaves and flowers bud has also been recorded.
Threat on genetic resources: Not evaluated.
Further reading: Grubben and Denton (2004).

***Momordica charantia* L.**
Syn.: *Momordica thollonii* Cogn.

Local names: Baroman (Waama), Gnisinkin (Mahi), Kpalaari (Anii), Kpalayi (Tchabè), Tchaati (Ifè), Tchatchala (Boko).
Common names: Poire de balsam, Concombre africain, Liane merveille, Margose (Français), Bitter gourd, Balsam pear, Bitter melon, African concomber, Karela (English).
Description and variation: *Momordica charantia* is a monoecious, climbing or trailing herb with ridged, glabrous or hairy stem, simple tendrils. The species is recently split into two subspecies based on leaf traits: subspecies *charantia* and subsp. *Macroloba.*
Status: The species is wild in Benin. It is spared when it grows around households.
Habitat: *Momordica charantia* grows spontaneously in humid locations, in open forest, along rivers. It is sometimes planted in home gardens in humid places (e.g. backyard) of the household.

Distribution: Odomèta, Pobè, Aguigadji, Godomey; Bohicon (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Pouya (Natitingou); Mondji (Savalou); Barikini (Bassila); Kodowari (Bassila); Ikemon (Ouèssè); Okunfo (Savè); Ekpa (Savalou); Tamba (Savalou); Mareguinta (Kalale).
Reproductive biology: Flowering is observed year-round but fructification and fruit maturaty occurs mainly at the end of the rainy season from June to November. The species reproduces by seeds which certainly exhibit a physical dormancy due to the hard tegument.
Utilisations: *M. charantia* is primarily known for its medicinal uses. The plant is used to treat diabetes and malaria. It is also used as a febrifuge either by washing or drinking. Decoction of the plant is used against stomach ache, urticaria, chickenpox, measles. The consumption of *M. charantia* as vegetable is reported in many communities in northern and central regions of Benin. In addition, young children consume the seed aril as a sweet.
Threat on genetic resources: It is not under threat. It is present in most forest areas in the Guinean region.
Further reading: Grubben and Denton (2004); (Achigan Dako, 2008a).

***Momordica cissoides* Planch. Ex Benth.**
Syn.: *Momordica maculata* Planch. ex Benth.; *Momordica gracilis* Cogn.

Local names: Gbofu (Anii), Voyi (Cotafon, Adja).
Description and variation: *Momordica cissoides* is an annual, dioecious climbing or trailing herbaceous plant with a striate stem. The leaves are 3-foliolate with petiolules 2-foliolules each. The white female auxiliary flowers (umbels) are subtended by a leafy sinuate bract on the top of the peduncle. The 3-5 cm long fruits are ovoid, and covered with smooth and dense spines, and are red-orange at maturity.
Status: Wild.
Habitat: it is usually found in forest hedges and in roadsides.
Distribution: The plant is well spread in the Guinean and Sudano-Guinean phyto-geographical areas in Benin: Lama, Houèto, Pobè, Savè, Linkpodji, Houin (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Wellan (Bassila); Sohounme (Houeyogbe); Afomayi (Lalo); Agnavo (Dogbo).
Reproductive biology: The species reproduces by seeds which are probably dormant and hard to germinate.
Utilisations: Consumption of immature fruit and even leaves is reported among Anii communities in the north-west as well as Adja and Cotafon communities in the south-west. The level of consumption varies depending on the communities, though frequent consumption is mostly recorded in Adja and Cotafon communities in the south-western regions. Consumption occurs in the rainy season but also year-round depending on localities. Leaf filtrates areused to treat eye complaints.
Threat on genetic resources: Given its distribution area, *M. cissodes* is not under threat of genetic erosion in Benin.

***Telfairia occidentalis* Hook.f.**

Local names: Iroko, Roko (Holly), Loko, Lokohouegbe, Lokohoueton (Aizo), Lokpo (Fon, Mahi).

Common names: Courge cannelée (Français), Fluted pumpkin, Fluted gourd (English).
Description and variation: A climbing liana, dioecious, perennial up to 6 m long or more. The flower corollas are creamy white with a red violet point in the centre. The fruit is a large and long, drooping and ellipsoid berry with ten very prominent ribs.
Status: Cultivated.
Production systems: This is a typical home garden species of the Guinean agro-ecological region in Benin. Its cultivation requires stakes. Household fences are usually used as support for the plant. However, it climbs also palm and *Citrus* trees.
Darwin Initiative 15/003 Project specimen collected from: Zalimey (Zogbodomey); Gbeko (Dangbo); Agbandonou (Allada); Gome (Toffo); Bognongon (Zogbodomey); Zonmon (Zangnanado); Akpate (Pobè).
Reproductive biology: The species reproduces by seeds. It is important to have male and female plants in the same surrounding to increase the chance of fertilization. Seed longevity is very short and the regeneration of the plant has been always problematic for large scale production.
Utilisations: Leaves are harvested in the rainy season or even year-round and consumed as a vegetable by many people of south Benin but particularly in Yoruba or Nagot communities. Consumption is occasional, rare or frequent depending on socio-linguistic groups. It is frequent among the Aïzo whereas Fon, Mahi and Holly communities consume it rarely or occasionally. Seeds are also used to make a typical dish known as '*avlouda*' in Yoruba communities. Commercialization of products of the species occurs in some localities but the species does not have a great market value.
Threat on genetic resources: Seed germination is hard to achieve and requires further investigation.
Further reading: Grubben and Denton (2004), (Ajayi *et al.* 2007).

***Trichosanthes cucumerina* L.**
Syn.: *Trichosanthes anguina* L.

Local names: Tikpinsindi (Gourmantché), Timantibankoman (Boko), Timati (Holly).
Common names: Serpent vegetal, Concombre-serpent (Français); Snake gourd, Snake tomato (English).
Description and variation: *Trichosanthes cucumerina* is an annual, monoecious liana climbing by 2-3-branched tendrils, digitate-lobed. The fruit is a linear, long berry up to 25-50 cm, greenish white to dark red at maturity.
Status: Cutivated.
Agro-ecology: In cultivation, *T. cucumerina* is well adapted to humid lowlands. The average day temperatures requirement is 30-35°C. It does not tolerate dry soil ant prefers a good moisture reserve in the soil.
Production systems: This is another typical home garden species in Benin which grows on household fences.
Darwin Initiative 15/003 Project specimen collected from: Tanongou (Tanguieta); Mareguinta (Kalalé); Ayetedjou (Kétou).
Reproductive biology: The species reproduces by seed.
Utilisations: The mature fruits contain a soft, red, tomato-like pulp. Hence, mature fruits are sometimes used as a substitute to tomato in sauces or as a substitute of tomato puree or paste. Immature fruits and more rarely young shoots and leaves are used as cooked

vegetables. The plant products are available at the end of the rainy season and even year-round and commercialized in local markets.
Threat on genetic resources: The limited distribution or cultivation areas of *T. cucumerina* make it vulnerable even though there is no immediate threat of extinction or genetic erosion.
Further reading: Grubben and Denton (2004).

Euphorbiaceae

***Acalypha ciliata* Forssk.**
Syn.: *Acaphyla fimbriata* Schumach. & Thonn., Beskr.

Local names: Axhuassamandjè (Fon), Hossudugblé (Adja), Tekpadjeluyologa, Titayanyandi (Gourmantché), Barichiri (Dendi).
Common names: Acalypha cilié (Français).
Description and variation: It is an annual herb, monoecious, tall up to 1 m. It is slightly pubescent and much branched. The leaves are arranged spirally, simple, stipules are linear, the blade ovate to elliptical-ovate. The flowers are unisexual, sessile, greenish and arranged in axillary racemes. Seeds are ovoid-globose, 1 mm in diameter, smooth, brown, caruncle elliptical.
Status: Wild.
Habitat: The species grows in open forest, savannah, fallows, on a wide range of soil types. It appears also as a weed in fields.
Distribution: Adjohoun; Ouando, Porto-novo; Hozin; Toumè; Odomèta; Guéné; Athiémé (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Kargui (Karimama); Batia (Tanguiéta); Agnavo (Dogbo); Afomayi (Lalo); Bognongon (Zogbodomey).
Utilisations: This herb is used as a leafy vegetable. It is also cooked mixed with fruits of *Abelmoschus esculentus* or leaves of *Vigna unguiculata.* The plant is collected from disturbed lands and is more available in the rainy season. However its consumption occurs rarely or occasionally and when other vegetable species become scarce. Local knowledge about usage of the species might be under threat as the Gourmantché community of Batia reported that this wild vegetable is currently only used by older people.
Threat on genetic resources: The species is a weed on farms and does not appear to be under threat.
Further reading: Schmelzer (2007).

***Bridelia ferruginea* Benth**

Local names: Koolu (Kotokoli), Gosassala (Anii), Kpatika (Waama).
Description and variation: A small deciduous tree or a shrub up to 6 m tall, often spiny. The flowers are yellow greenish with a reddish disc.
Status: Wild.
Habitat: It is found in savannah, woodlands, riparian forest, in fallow lands and thickets.
Distribution: Cotonou; Pobè; Odomèta; Lanta; Savè; Méréguinta; Savalou (Akoègninou *et al.* 2006).

Darwin Initiative 15/003 Project specimen collected from: Tchimberi (Bassila); Kodowari (Bassila); Pouya (Natitingou).
Utilisations: Rarely used as leafy vegetable even if available year-round. It is reported to be used to treat dysmenorrhoea in Kotokoli communities. Recent studies have shown that the methanolic extract of *B. ferruginea* bark can be useful in the management of African sleeping sickness.
Threat on genetic resources: Not evaluated.
Further reading: Ekanem *et al.* (2008); Adebayo and Ishola (2009).

***Croton lobatus* L.**

Local names: Aloviatoon (Ouémè), Eyetayé, Oru (Holly), Kissiadje (Adja), Koklowontin (Mahi), Mèkokummè (Otammari), Mussukubaagu (Bariba).
Common names: Lobed croton (English).
Description and variation: *Croton lobatus* is an annual, monoecious herbaceous plant much branched, erect, pubescent, sometimes woody at the base. It can reach 1 m tall. The alternate leaves are palmately 3-5 lobed. The lobes are oblanceolate to obovate, basal glands absent, apex acuminate, margins toothed, stellate hairy to almost glabrous on both sides. The inflorescence is a slender, axillary or terminal raceme; with small male flowers in the upper half and female flowers in lower half. The flowers are unisexual, 5-merous, regular, yellowish green. The fruit is an almost globular capsule, stellate hairy, green, 3-seeded.
Status: Wild.
Habitat: *Croton lobatus* is an invasive species occurring in the first stage of vegetation establishment, after land clearing. It is also found in fallows and is a weed in farmlands.
Distribution: It is well spread in Sudano-Guinean and Guinean phyto-geographical zones: Calavi; Ouédo; Bétérou, Adjarala; Cotonou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Zalimey (Zogbodomey); Agnavo (Dogbo); Soubado (Pèrèrè); Zonmon (Zangnanado); Ayetedjou (Kétou); Gogbo (Adjohoun); Akpate (Pobè); Tagaye (Natitingou).
Reproductive biology: Reproduction is by seeds.
Utilisations: Consumption of the tender leaves by vary in degree depending on the community. In Ayetedjou the plant is sold in the local market. The species is available in the rainy season, but more abundant in the dry period in the Ouémé valley. It is known as a very useful plant in traditional medicine where it is used to treat jaundice in the Mahi community of Zonmon and recommended to pregnant women for the welfare of the foetus in the Holly community of Ayétédjou.
Threat on genetic resources: Because of its weedy features, the species is not at risk of genetic erosion.
Further reading: Schmelzer, 2007.

***Jatropha curcas* L.**
Syn.: *Jatropha afrocurcas* Pax

Local names: Orkpokpoou (Tchabè), Yanayikpadja, Kpayola (Holly).
Common names: Pignon d'inde, Purghère, Gros ricin, Médicinier purgatif (Français), Physic nut, Purging nut (English).

Description and variation: A deciduous monoecious shrub or small tree 5-8 m tall, to some extent succulent, with robust branches arising from a thick perennial rootstock. It has abundant and translucent latex. The leaves are alternate, simple; the blade is broadly ovate in outline, usually shallowly 5-lobed, the base shallowly to deeply cordate, apex acute, margins usually entire, glabrous, 5–7-veined from the base. The inflorescence is a terminal or axillary umbel-like cyme, often paired, with a solitary female flower ending each major axis and many male flowers on lateral branches. The flowers are unisexual, regular, 5-merous, greenish yellow. The fruit is a broadly ellipsoid capsule initially fleshy and green, turning yellow at maturity, dehiscent, 3-seeded. The seeds are black.
Status: Cultivated.
Agro-ecology: It is found in the Guinean phyto-geographical zone where it is used for fence establishment. It grows well in conditions with daily temperatures of 20–30°C and annual rainfall of 300–600 mm. It resists to periods of drought of up to 7 months and will grow on degraded, sandy or gravelly and even saline soils with low nutrient content, but cannot survive in waterlogged terrain.
Darwin Initiative 15/003 Project specimen collected from: Akpate (Pobè); Okunfo (Save); Ayetedjou (Kétou).
Production systems: *Jatropha curcas* has been introduced in Benin and usually used for fence establishment in rural areas, but it is actually targeted as oil seed plant for biofuel production.
Utilisations: Consumption of its tender leaves has been recorded in Tchabè and Holly communities in the Guinean and Sudano-Guinean ecological regions, though it is used rarely. It is said to be available year-round. It is cultivated primarily for its medicinal properties in many communities and be used in curing malaria and mouth diseases.
Threat on genetic resources: Not evaluated.
Further reading: Henning (2007).

Jatropha gossypiifolia **L.**

Local names: Nyikpotin vovo (Fon) Botujè pupa, Lapa lapa pupa (Nagot, Yoruba), Timnmo'nti (Otamari).
Common names: Médicinier sauvage, Médicinier bâtard, Médicinier rouge, Pourghère rouge (Français), Cotton-leaved physic nut, Bellyache bush, Wild cassada, Red fig-nut flower (English).
Description and variation: A deciduous shrub with glabrous and glandulous branches. More branched than *J. curcas*, it is monoecious, up to 3 m tall. The alternate leaves are stained purple glabrous; the blade is broadly ovate in outline, shallowly to deeply 3(–5)-lobed, base shallowly cordate, lobes obovate to oblanceolate, middle lobe longest, apex acute. The inflorescence is a sparingly flowered leaf-opposed cyme, with a solitary female flower ending each major axis and male flowers in lateral cymules. The flowers are red purple. The fruit is a fleshy to dry, globose to 3-lobed capsule, sparingly hairy to glabrous, green becoming brownish, dehiscent into 2-valved cocci, usually 3-seeded. The ellipsoid seeds are pale grey-brown.
Status: Cultivated.
Darwin Initiative 15/003 Project specimen collected from: Tagaye (Natitingou); Gome (Toffo).

Production systems: The plant is grown around households as a living fence. Like *J. Curcas*, *J. gossypiifolia* is a shrub introduced and naturalised in Benin. Currently widespread in all ecological zones, it is cultivated around buildings for the same purposes as *J. Curcas*: as a fence and for its medicinal uses. It occurs also in waste land and along roadsides.
Utilisations: Consumption of leaves is recorded among the Otamari socio-linguistic group in the north-west of Benin in the Sudanian zone. Medicinal uses are the most important utilisation of this small tree. Leaf latex is used aginst anaemia and sexual complaints.
Threat on genetic resources: As it is naturalised in many areas, the species is not under threat of genetic erosion.
Further reading: Kawanga (2007).

***Manihot esculenta* Crantz**
Syn.: *Manihot utilissima* Pohl

Local names: Finyin, Golotin, Hunla, Sohwe (Fon, Mahi), Gbatchi, Baountchi (Ifè), Kpaki (Tchabè, Holly), Ajangun (Idatcha, Mahi, Ifè), Éguèkè (Mahi), Tamguma, Logo (Bariba), Loogo (Dendi), Otangoumbo (Gourmantché).
Common names: Manioc, Cassava (Français), Cassava, Rapioca plant (English).
Description and variation: *Manihot esculenta* is a shrub with white latex, up to 2-3 m tall. The stem is knotty. The leaves are digitate and the roots tuberous. There is a great variability of stem bark colour, leaf stain, etc. These characters are used to describe varieties.
Status: Cultivated.
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Poto (Banikoara); Akarade (Bassila); Agbandonou (Allada); Gogbo (Adjohoun); Okunfo (Save); Ikemon (Ouèssè); Bognongon (Zogbodomey); Kpassa (Tchaourou); Banigri (Tchaourou); Akpate (Pobè); Zalimey (Zogbodomey); Mondji (Savalou); Ayetedjou (Kétou); Assedji (Athiémè); Ganro (Bembèrèkè); Agnavo (Dogbo); Zougou-Pantrossi (Gogounou); Bensekou (Kandi); Dabou (Paaraakou); Mareguinta (Kalale); Gbeko (Dangbo); Ekpa (Savaalou); Ileman (Dassa-Zoumè); Zonmon (Zangnanado); Kodowari Bassila); Tagaye (Natitingou); Loumbou-Loumbou (Karimama); Pouya (Natitingou); Vossa (Ouesse); Wellan (Bassila); Kpakpaza (Glazoué); Sohounme (Houeyogbe); Sovlegni (Djidja); Torozogou (Malanville); Gome (Toffo); Tamba (Savalou).
Production systems: Cassava is produced throughout the country, primarily for its tubers. The central region of Benin is the biggest production zone. It is cultivated as a monocrop or intercropped with other food crops such as maize, groundnut, etc. Cuttings are mostly used for reproduction.
Utilisations: *Manihot esculenta* is an important staple crop in Benin. The tuber provides starch. Consumption of young leaves is integrated into the dietary habits of many socio-linguistic groups. Leaves are available all year-round and are sold in local and regional markets. The plant is used to treat anaemia, malaria, kwashiorkor, dizziness, and earaches.
Threat on genetic resources: *M. esculenta* is widely produced. Many cultivars are handled by farmers and it is not threatened.

Manihot glaziovii **Müll. Arg.**

Local names: Ban'ctchi (Kotocoli), Houecoute, Klaba (Cotafon), Roba (Aïzo).
Common names: Ceara rubber tree (English).
Description and variation: A small tree or shrub with white latex, up to 10 m tall.The leaves are digitate, peltate.
Status: In the past the plant was cultivated but currently it is mostly found growing spontaneously.
Darwin Initiative 15/003 Project specimen collected from: Sohounme (Houyogbé); Gome (Toffo); Tchimberi (Bassila); Assedji (Athiémè).
Production system: It is cultivated in villages and in young palm tree plantations.
Utilisations: It has been introduced in Benin and is cultivated for rubber production. Currently, escapes occur spontaneously or wild in certain regions. Fresh leaves are available all year-round but consumption is very rare. This use is recorded in the Gourmantché socio-linguistic group in the north-western part of the Sudanian zone. The species is also used to treat earaches.
Threat on genetic resources: Not evaluated.

Margaritaria discoidea **(Baill.) Webster**

Local names: Kouta (Aïzo), Tibuoti, Titembauti (Otamari).
Description and variation: The species is a medium-sized, deciduous tree with drooping branches, up to 20 m tall. The leaves are caducous, flowers yellow greenish.
Status: Wild.
Habitat: A tree species which grows in forests, riparian forests or humid stations in the Guinean as well as the Sudanian phyto-geographical zones in Benin.
Distribution: Parakou; Sèmèrè; Avégamè; Aplahoué; Lama; Pouya; Pobè (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Tagaye (Natitingou); Agbandonou (Allada); Moupemou (Natitingou).
Utilisation: Consumption of young leaves is recorded in the Aïzo socio-linguistic group in the Guinean zone, though used rarely. Fodder of *M. discoidea* can have a positive effect on protein utilization and retention in sheep.
Reproductive biology: Propagates by seeds.
Threat on genetic resources: Not evaluated.
Further reading: Osakwe and Steingass (2004).

Phyllanthus amarus **Schumach & Thonn**
Syn.: *Phyllanthus niruri* auct. non L.

Local names: Arigbisso (Ifè), Henlenwé, Hlinwéwé (Fon).
Common names: Phyllanthus amer, Herbe au chagrin, Petit tamarin blanc (Français), Black catnip, Child pick-a-back, Gale of wind, Gulf leaf flower, Hurricane weed (English).
Description and variation: The species is an erect, monoecious, glabrous annual herb up to 0.50 m tall. The stem and leaves are pale green. The leaves are alternate, simple, entire and sessile; the blade is oblong to elliptical-oblong. The flowers are 1–2 in the axils of leaves and

unisexual. The fruit is an obtusely 3-lobed capsule. Small flowers in the axils of leaves; fruits three-lobed capsule, smooth, hanging.
Status: Wild.
Habitat: The species is widespread in all ecological zones of Benin. It grows in the rainy season as a weed in open forest, fallows, and farm areas, plantations, waste grounds and along roadsides. It prefers humid and sandy soils.
Distribution: Cotonou; Dannou; Adjohoun; Davougon; Abomey; Samiondji; Doutou; Savalou (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Tamba (Savalou); Ekpa (Savalou); Sovlegni (Djidja).
Utilisations: Medicinal uses are the most common for this herb, which is occasionally cultivated in home gardens. It is used against vomiting, skin inflammations and other diseases. It is consumed as a soup ingredient in the central region of Benin by Ifè communities, where the plant is dried before use.
Reproductive biology: Reproduces by seed, which requires light to germinate. Often germination rates are low (less than 50%) and freshly harvested seeds are slower than older ones. Therefore, pretreatment is needed to facilitate good germination.
Threat on genetic resources: As it is widespread and has a weedy habit, *P. amarus* is not threatened.
Further reading: Oudhia (2008).

Irvingiaceae

Irvingia gabonensis (Aubry-Lecomte ex O'Rorke) Baill.

Local names: Aslotin, Aslo, Asro (Fon), Asiotin (Goun), Oro, Oroyefun (Idatcha, Tchabè, Holly).
Common names: Pomme sauvage (Français), Wild mango tree, Rainy season bush mango, African mango, Dika nut (English).
Description and variation: Small to giant tree up to 40 m tall, bole generally straight, up to 100 cm in diameter, with buttresses up to 3 m high. The leaves are dark green, leathery, alternate, simple and entire. The blade is elliptical, base cuneate, apex acute or indistinctly acuminate, pinnately veined. The inflorescence is an axillary panicle up to 9 cm long. The flowers are bisexual, regular, 5-merous. The rounded to ellipsoid or cylindrical fruits are drupes, green when immature and turn yellow when ripened. Some authors distinguish two varieties: var. *gabonensis* bearing fruit with sweet edible pulp and var. *excelsa* with bitter inedible pulp. However, based on DNA analysis, others consider these taxa as two different species as they are genetically distinct and do not hybridize, even where sympatric. For var. *gabonensis* there is continuous variation in fruit, kernel and shell characters among cultivated populations.
Status: Currently undergoing a domestication process, it has been established as a parkland tree in many regions in the Guinean-Congolean rain forest areas. The World Agroforestry Centre in west and central Africa has undertaken extensive research for the improvement of potential ideotypes of var. *gabonensis* for domestication.
Distribution: Aguidahoué; Godomey; Adjara; Porto Novo; Bopè; Abomey (Akoegninou *et al*, 2006).

Darwin Initiative 15/003 Project specimen collected from: Sovlegni (Djidja); Ileman (Dassa-Zoumè); Mondji (Savalou); Kpakpaza (Glazoué); Ayetedjou (Kétou); Bognongon (Zogbodomey); Zalimey (Zogbodomey).
Agro-ecology: A tree species of semi-deciduous humid forest in the Guineo-Congolean phyto-geographical zone. In Benin it is found in the patchy humid regions in the south.
Production systems: The species has been planted in villages or protected within farmlands for fruit consumption. However, production systems remain traditional.
Utilisations: Fruits are juicy and sweet. They are eaten fresh and kernels are sold in local and regional markets. Kernels have a high oil content and glutinous property. Crushed kernels are therefore used in southern Benin to cook a dish known as 'ogbono' in Yoruba communities. However, consumption is very sporadic because the fruits and kernels are available mostly in the dry season. Additionally, the species is said to be used in medico-magic practices (e.g. children enuresis treatment) in Benin.
Threat on genetic resources: Domestication efforts have helped to keep the species out of danger. It is fairly widespread in West and Central Africa and does not seem to be under threat of genetic erosion. It is classified in the IUCN Red List as a lower risk species, but is close to the qualification 'vulnerable'.
Further reading: Atangana *et al.* (2001); Tchoundjeu and Atangana (2007); Okafor (1975); Nya *et al*. (2006).

Lamiaceae

Hoslundia opposita Vahl.

Local names: Guédjékangara (Anii), Hlatchiayo (Fon), Hlatchio (Aizo), Wonanvwe (Cotafon).
Common names: Kamyuye (English).
Description and variation: A perennial erect or semi-creeping smelly shrub. The leaf blade is elliptic-acuminate, crenate-serrate with terminal panicle. It bears small flowers 3-4 mm, the calyx development ending in a fleshy orange berry.
Status: Wild.
Habitat: The species naturally occurs in fallows, riparian forests and woody savannahs within tall grass species. It is typically found at an altitude of 0 to 1 660 m.
Distribution: Lanta; Pobè; Atchérigbé; Gbananmè; Daho; Dassa (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémè); Agbandonou (Allada); Wellan (Bassila).
Utilisations: Aromatic tender leaves are collected and used as a vegetable. Although *H. opposita* is available all year-round, its usage occurs rarely or occasionally and therefore it is not sold. It is recognised wherever used to have important medicinal values and intervenes in healing children from Kwashiorkor and malaria in Aizo communities. In the Anii community of Wellan, women use this vegetable in the early stages of pregnancy.
Reproductive biology: The species reproduces by seeds. It flowers and fruits in April, May, June, and October.
Threat on genetic resources: The plant is widely expanded in southern and tropical Africa, and Madagascar. It currently does not appear to be threatened.
Further reading: Amvam Zollo *et al.* (1998); Ayedoun *et al.* (1999)

***Ocimum americanum* L.**
Syn.: *Ocimum canum* Sims.

Local names: Abotian (Bariba), Kesu kesu, Xisi xisi, Xweflu (Fon), Haciyayo (Goun) Akohun, Kohun (Fon, Mahi), Feeokuta, Ofin (Tchabè).
Common names: Basilic Blanc (Français), Hoary basil (English).
Description and variation: *O. americanum* is an annual herb which looks like *Ocimum basilicum* but is smaller. The racemes are slack bearing white corollas with 4 mm diameter, small, hardly exceeding the calyx.
Status: Cultivated.
Agro-ecology: *Ocimum americanum* is a garden species which is present in all phyto-geographical zones. It is typically found at an altitude of 0 to 1400 meters. Probably introduced in Benin, it has adapted to local agro-ecologies. Currently, escapes colonise abandoned areas in village vicinities where they grow spontaneously.
Distribution: Dassa-Zoumè; Monts Atacora (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Kpassa (Tchaourou).
Production systems: The species is cultivated in home gardens, but also spreads around huts and can be a bad weed in farms. It does not need to be resown each season as the seeds spread around by wind in the dry season and can easily germinate when conditions are favourable.
Utilisations: *Ocimum americanum* is an aromatic herb. The species is rarely consumed and like almost all *Ocimum* species, its leaves are used for their arum and as an ingredient in sauces. It is much more abundant in the rainy season, but less consumed and does not have any market value. It is said to be used as an aphrodisiac in the Fon communities and also used to cure skin diseases (urticaria and mycoses) in Mahi communities.
Threat on genetic resources: As it is widely distributed across the country, *O. americanum* does not appear to be threatened in Benin.

***Ocimum basilicum* L.**

Local names: Akohoun (Idatcha, Mahi, Aizo), Unkpéhoun (Ifè), Kodukwè (Mahi), Kokoula (Boko), Timunurdi (Gourmantché), Guefudire, Gofounnoutoure (Anii), Abotian, Bonouregou (Bariba), Kupanuonku (Otammari), Iroun (Holly).
Common names: Basilic, Basilic commun, Herbe royale (Français), Sweet basil, Common basil, Garden basil (English)
Description and variation: *O. basilicum* is an aromatic annual herb which can reach 1 m tall, the stem is erect and white flower spikes bloom from June to August.
Status: It has been introduced in Benin like other *Ocimum* species, but can actually reproduce spontaneously.
Distribution: Porto-Novo; Abomey-Calavi (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Moupemou (Natitingou); Ganro (Ganro); Batia (Tanguiéta); Mondji (Savalou); Ileman (Dassa-Zoumè); Soubado (Pèrèrè); Tamba (Savalou); Banigri Tchaorou); Dabou(Parakou); Kpakpaza (Glazoué); Penelan (Bassila); Gbeko (Dangbo); Zonmon (Zangnanado); Ayetedjou (Kétou); Wellan (Bassila); Bensekou (Kandi).

Agro-ecology: *Ocimum basilicum* is grown in home gardens. It grows on average well-drained soils, 5.1-8.5 pH. Flowering needs full to part-time sun exposure.
Production systems: It is not cultivated as a crop but is just kept in backyards mainly for medicinal uses.
Reproductive biology: It can reproduce spontaneously from seeds spread around by wind during the dry season.
Utilisations: The plant is used for the same purposes as *O. americanum* which it resembles morphologically. However, it is more widely consumed that *O. americanum*. *O. basilicum* is available year-round and is sold in village markets. In the Gourmantché community of Batia, its tender leaves are cooked with cowpea seeds (*Vigna unguiculata)*. All *Ocimum* species contain antibiotic and anthelmintic compounds and are used for these reasons against colds, fever, headaches, malaria, convulsion, and venoms of reptiles and insects.
Threat on genetic resources: The species is available country-wide in Benin and does not appear to be under threat.

***Ocimum gratissimum* L.**

Local names: Am'baba, Anrubaba (Holly, Ifè), Aribara (Idatcha), Tchanmandido, Tchanmandidoue (Cotafon, Aizo), Gbodoglin (Fon), Tchiayo (Fon, Aizo, Oueme), Yandodu, Yandodoui, Lolouide (Adja), Gudjeme (Anii), Kiooyo (Mahi), Kinunubidjaga (Gourmantché), Nuanzua (Boko), Simonba (Tchabè), Tibòdayati, Tibòsèyenti (Otammari), Nunugu, Gassaman (Dendi), Warima (Waama), Kinanzorou, Kounonsorou (Kotokoli), Danbakaru, Unonbuboko, Wronwron, Bonurogu (Bariba).
Common names: Gros basilica, Plante moustique, Buisson thé, Feuille fievre, Thé de Gambie, Basilic en arbre, Basilic à Thymol (Français), African basil, South-East-Asian basil, Tree basil, Pale-yellow-flowered-basil (English).
Description and variation: *Ocimum gratissimum* is a subshrub. Two varieties have been morphologically described, *O. gratissimum* var. *gratissimum* and *Ocimum gratissimum* var. *macrophyllum*. RAPDs marker analysis shows that there are three different groups.
Status: The species is cultivated as an aromatic and medicinal plant.
Distribution: Dassa-Zoumè; Kouandé (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Wellan (Bassila); Barikini (Bassila); Ikemon (Ouèssè); Pouya (Natitingou); Sohounme (Houéyogbé); Gogbo (Adjohoun); Agbandonou (Allada); Soubado (Pèrèrè); Okunfo (Savè); Gome (Toffo); Vossa (Ouèssè); Akarade (Bassila); Tanongou (Tanguieta); Mondji (Savalou); Assedji (Athiémè) ; Sovlegni (Djidja); Moupemou (Natitingou); Ayetedjou (Kétou); Dabou (Parakou); Tagaye (Natitingou); Tchimberi (Bassila); Zougou-Pantrossi (Gogounou); Akpate (Pobè); Tankougou (Kandi); Zalimey (Zogbodomey); Kargui (Karimama); Ekpa (Savalou); Tamba (Saavalou); Afomayi (Lalo); Kpakpaza (Glazoué); Ileman (Dassa-Zoumè); Torozogou (Malanville); Bognongon (Zogbodomey); Kpassa (Tchaourou); Gbeko (Dangbo); Penelan (Bassila); Ganro (Bembèrèkè); Kodowari (Bassila); Agnavo (Dogbo); Mareguinta (Kalalé); Zonmon (Zangnanado); Banigri (Tchaourou).
Agro-ecology: Typically found at an altitude of 0-2,382 m, it is cultivated in all phyto-geographical zones in Benin.
Production systems: Because of its importance (food and medicine), the species is integrated by small scale farmers in home gardens or cropland. Also it can be found near villages where seeds spread by the wind during the dry season germinate at the onset of the rains. In peri-

urban and urban agriculture, the species is an important crop and is produced by most producers to supply cities. It is therefore available year-round.
Utilisations: *Ocimum gratissimum* was in the past primarily known for its medicinal properties, and leaves collected from cultivated plants were used for consumption only occasionally. Currently, the plant has become very appreciated by communities in southern Benin (for the taste of its leaves and its antibiotic properties), particularly in urban areas where it has a great market value. It is sold in both local and regional markets. It is the most widely eaten of the *Ocimum* species and is currently a good source of income for urban gardeners. In the cooking processes it is sometimes mixed with other vegetables, for example crushed kernels of *Citrullus lanatus*. Macerates of leaves are used against vomiting, diarrhoea, dystocia, dysmenorrhoea, digestives troubles, mycoses, haemorrhoids, stomach-ache, cough, headache, dysentery, constipation, abscess, typhoid fever, headaches, etc. It is also widely used as first aid antibiotic to treat wounds. Most importantly, it is prescribed in northern Benin to women in their first days after childbirth in order to eliminate blood clots. Frequent consumption of *O. gratissimum* is supposed to prevent dystocia in pregnant women.
Threat on genetic resources: Widely cultivated, *O. gratissimum* does not appear to be under threat in Benin.
Further reading: Graver *et al.* (2000); Vieira *et al.* (2001); Grubben and Denton (2004).

Lauraceae

Cassytha filiformis L.
Syn. : *Cassytha guineensis* Thonn. ex Shumach.

Local names: Seiyaba (Boko), Fouadobagaru (Bariba)
Common names: Liane sans tête, Liane sans fin (Français), Fine-stem Lovevine, Devil's gut (English).
Description and variation: Climbing perennial vine, leafless parasitic plant that survives by attaching itself to other plants. The alternate leaves reduced to minute scales, and arranged spirally, are glabrous or pubescent. The twining filiform stems are pale green to yellow-green or orange and produce small round fruits. The inflorescences are spikes, rarely reduced to a single flower; flowers are bisexual, sessile or shortly pedicellate, subtended by ciliate bract and bracteoles. Although very small, flowers are typical, including anthers that open by flaps. The fruit is a black drupe, globose, enclosed in a floral tube, remnants of an apical perianth.
Status: Wild.
Distribution: Ouèdèmè-Péda ; Cotonou ; Adjérégbé ; Takon ; Bowourouho, Kopargo (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Poto (Banikoara); Bensekou (Kandi).
Habitat: *Cassytha filiformis* is collected from fallows established on sandy soils, wetlands and swamp edges. It also occurs in coastal vegetation.
Reproductive biology: It is a perennial vine which requires full sun for flowering. It is highly drought tolerant.
Utilisations: Frequently consumed in the dry season by the Boko community of Bensekou, whereas it is rarely used as a vegetable in the Bariba community of Poto, in the Sudanian

phyto-geographical zone. It does not have any market value. Traditionally, *C. filiformis* is known for its medico-magic properties. Its utilisation as a vegetable is restricted to these communities.
Threat on genetic resources: The current conservation status of *C. filiformis* in Benin is not evaluated.

Leguminosae-Caesalpinioideae

Afzelia africana Sm.

Local names: Bonakpanbo (Gourmantché), Gbebu (Bariba), Kèemè (Kotokoli), Guiyobolo (Anii).
Common names: Lingué (Français), African mahogany, African oak (English).
Description and variation: The species is a tree up to 33 m tall, with compound leaves, 3-5 pairs of opposite leaflets. The blade is oblong or oblong-lanceolate, 5-15x3.5-8.5 cm. The flowers have 1 petal, black characteristic pods and seeds covered with a cup-shaped orange aril.
Status: Wild.
Habitat: A dry forest and woodland species, *A. africana* occurs in savannahs as well in semi-deciduous forests. It is also spared, together with other species, in agropastoral systems by herders in northern Benin.
Distribution: Pobè; Adjarala; Dan; Dassa; Tchétou; Agbassa, Tchaourou and Koussoukouangou (Akoègninou *et al.* 2006)
Darwin Initiative 15/003 Project specimen collected from: Kodowari (Bassila); Batia (Tanguiéta); Kpassa (Tchaourou); Banigri (Tchaourou); Tchimberi (Bassila).
Reproductive biology: Perennial species which reproduces by seeds.
Utilisations: An important timber and fodder tree, *A. africana* is also used as a leafy vegetable in some communities of the Sudanian and Sudano-Guinean regions. Tender leaves are mostly collected in the dry season, after the first rains following bushfires. The consumption of this species in the centre and the north-west of the country occurs rarely or occasionally even though the resource could be available year-round. The species does not have any commercial importance. The decoction of the stem bark is used in healing rheumatisms and malaria in these communities. *Afzelia africana* is also heavily pruned in the dry season to feed livestock.
Threat on genetic resources: A multipurpose species heavily exploited by different resource users. It is currently nationally threatened according to IUCN criteria. It falls into the IUCN category 2.3 (vulnerable).
Further reading: Houehounha T.D. *et al.* (2008)

Burkea africana Hook.

Local names: Tchinguili, Balabalodè (Kotokoli), Bééribu (Waama).
Description and variation: Deciduous tree up to 23 m tall, with small knotty branches. The leaves are compound, around 12 alternate lealets; the abundant flowers are arranged in spike panicles.
Status: Wild.

Habitat: Farmlands, fallows, savannah woodlands and establishes on ferruginous soils.
Distribution: Common in the whole of tropical Africa, *B. africana* occurs in all phyto-geographical regions in Benin: Agonli-kpahou; Batèdji-Savalou; Dassa; Savè; Boukouro, Kouandé; Nalohou II, Djougou; Kouaténa; Kalalé (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Tchimberi (Bassila); Pouya (Natitingou).
Reproductive biology: Perennial tree species which reproduces by seed.
Utilisations: The species is used only very rarely as a leafy vegetable only in communities in north-western Benin. It has been reported that knowledge about the preparation of this vegetable is nowadays only held by older women. The species has an important medicinal value for the above communities where it is used against malaria.
Threat on genetic resources: *Burkea african* does not appear to be threatened in Benin.

***Daniellia oliveri* (Rolfe) Hutch. & Dalziel,**
Syn.: *Daniellia fosteri* Holland, *Daniellia punchii* Holland, *Daniellia similis* Holland, *Paradaniellia oliveri* Rolfe

Local names: Guobole, Ibonon (Anii), Gbeou, Gnannu (Bariba), Za (Fon/Adja), Tchèlè, Tchalè (Kotokoli).
Common names: Copalier africain de balsam, Santan (Français), African copaiba balsam tree, West African copal, West african gum copal (English).
Description and variation: A tree species up to 30 m tall with a remarkable blackish and scratched trunk. The compound leaves have opposite leaflets in 4-11 pairs; the blade is oblique and acuminate. The flowers are white.
Status: Wild.
Habitat: Occurs in woody savannah and dry forest areas where it grows on ferruginous soils. Also, it is spared in agropastoral systems by herders in north Benin.
Distribution: Adjarala; Zogbodomey; Agbangnizoun; Zinkanmè; Djidja; Goro; and Piscine Tanékas (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Keremou (Banikoara); Tchimberi (Bassila); Akarade (Bassila); Ganro (Bembèrèkè); Afomayi (Lalo); Sovlegni (Djidja); Barikini (Bassila); Wellan (Bassila).
Reproductive biology: Perennial tree which reproduces by seeds disseminated in the landscape by various dispersal agents (birds and mammals primarily). Root cuttings can also be used, but survival rates are lower.
Utilisations: Tender leaves are collected mainly on saplings or coppices. The species is sometimes sold in local village markets. It is frequently consumed in the Anii and Kotokoli communities (which are geographically neighbours), but in other communities it is only used rarely or occasionally. In Fon communities, the species is being used progressively as substitute to *Vitex doniana* as the latter's leaves are becoming scarce due to heavy exploitation. Tender leaves of *D. oliveri* are abundantly available in the dry season, although it may be available year-round in some areas. It is also said to be used in the treatment of dysmenorrhoea in the Adja community of Afomayi in south-western Benin.
Threat on genetic resources: Not evaluated. However, if the use of this species as a substitute of *V. doniana* continues, there is a great potential threat on the resource.
Further reading: Sokpon *et al.* (2006), Houehounha T.D. *et al*. (2008), Houehounha R. *et al.* (2009).

***Piliostigma thonningii* (Schumach) Milne-Redh.**
Syn.: *Bauhinia thonningii* Schumach.

Local names: Goutchérimè (Anii), Bako (Kotokoli).
Common names: Pied de boeuf (Français), Kao (English).
Description and variation: The species is a shrub or small tree up to 8 m tall bearing white flowers. The indehiscent pods of 12-25x4-6 cm are very persistent.
Status: Wild.
Habitat: The plant occurs in savannas and fallows.
Distribution: The species is widespread in tropical Africa. In Benin, it occurs in all phyto-geographical zones: Dogo; Lanta; Gobada; Savalou-Tchetti; Okpara; Donkparawi, Nikki and Porga (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Kodowari (Bassila); Barikini (Bassila); Tchimberi (Bassila).
Reproductive biology: *Piliostigma thonningii* is perennial and reproduces by seeds dispersed by birds, animals and insects.
Utilisations: The species is rarely or occasionally used as leafy vegetable by Anii and Kotokoli communities in the Sudano-Guinean zone. The resource is available all year-round but it does not have any market value. It is credited with anti-inflammatory and anti-bacterial properties. It is used for curing haemorrhoids and diarrhoea. It is also said to facilitate the growth of teeth in children.
Threat on genetic resources: Not evaluated.
Further reading: Ibewuike (1997).

***Senna obtusifolia* (L.) H.S.Irwin & Barneby,**
Syn.: *Cassia obtusifolia* L., *Cassia tora* auct. non L., *Senna tora* (L.)Roxb

Local names: Sooula (Boko), Tikpahunkpadi (Gourmantché).
Common names: Cassia fétide, Casse fétide, Casse puante, Séné, Pistache marron (Français), Siklepod, African foetid cassia, Low cassia (English).
Description and variation: Annual or perennial herb with a lignified basal stem, up to 1.5 m tall. The leaves are alternate, 3 pairs of obovate leaflets, apex rounded or abruptly acuminate, mucronate, with a foetid smell. It blooms with solitary or paired yellow bisexual flowers. The fruit is a linear dehiscent pod, straight or curved, many-seeded. The distinction between *S. obtusifolia*, *S. occidentalis* and *S. tora* is not always clear. Names have often been misused and the same vernacular names may apply to all of them.
Status: Wild.
Habitat: Plants are collected from fallows, abandoned areas in village vicinities, along roadsides, as well as from cultivated lands. It is also found along rivers and on dam shores. The species is a pioneer colonising the land in the first stage of vegetation establishment, but its presence is often associated with human activities.
Distribution: Cotounou; Gomé; Samiondji; Guuéné; Djidja; Kalalé; Saakabansi; Aplahoué ; Goungoun (Akoègninou *et al.* 2006).
Specimen of Darwin Project collected from: Tanongou (Tanguieta); Batia (Tanguieta); Bensekou (Kandi); Loumbou-Loumbou (Karimama).
Reproductive biology: The plant propagates by seeds. It is a self-pollinated, short-day plant . The blooming period is between July and September.

Utilisations: Tender leaves are frequently used in Gourmantché communities as a vegetable in the dry season, whereas it is rarely eaten by Boko communities. The widespread use by Gourmantché communities in north-eastern Benin could be influenced by their proximity to Niger and Burkina Faso where *S. obtusifolia* is an important vegetable. The species in Benin does not have any commercial importance even though it is available year-round in the region. Moreover, it is used by communities to heal malaria. Leaves are also grazed by livestock, though it contains mycotoxicosis which is often fatal for cattle.
Threat on genetic resources: Currently, the species does not appear to be under threat.
Futher readings: Grubben and Denton (2004).

***Senna occidentalis* L.**
Syn.: *Cassia occidentalis* L.

Local names: Adjagulu (Tchabè), Agbossouwanlui (Cotafon), Ayahouènu (Fon), Gitchantchunpè, Icencenpè (Anii), Siandala (Boko), Titukouti, Titukpòòti (Otammari), Yannuyinnon (Bariba, Waama), Kitchintchin (Kotocoli), Togble (Aïzo), Sangasanga (Gourmantché).
Common names: Séné café, Café nègre, Casse café, Casse puante, Pois puant, Faux kinkéliba (Français), Coffee senna, Coffee senna, Stinking weed (English).
Description and variation: *S. occidentalis* is an annual erect herb lignified at the base, up to 1 m tall. The compound leaf has 4-5 pairs of opposite, oblong leaflets; the blade is acuminate at apex. The flowers are yellow; the dehiscent pods are straight with prominent sutures.
Status: Wild.
Habitat: Same as *S. obtusifolia.*
Distribution: A pantropical species, it is widespread in all phyto-geographical zones of Benin: Cotonou; Azowlissè; Ouando; Porto Novo; Samiondji; Ina (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Barikini (Bassila); Tankougou (Kandi); Bognongon (Zogbodomey); Kpassa (Tchaourou); Agbandonou (Allada); Bensekou (Kandi); Sovlegni (Djidja); Dabou (Parakou); Keremou (Banikoara); Banigri (Tchaourou); Wellan (Bassila); Ganro (Bembèrèkè); Moupemou (Natitingou); Assedji (Athiémé); Tagaye (Natitingou); Loumbou-Loumbou (Karimama); Ikemon (Ouèssè); Soubado (Pèrèrè); Zougou-Pantrossi (Gogounou); Okunfo (Save); Tchimberi (Bassila); Pouya (Natitingou); Akarade (Bassila).
Reproductive biology: *S. occidentalis* reproduces between May and June and propagates by seed.
Utilisations: The species has many uses. Utilisation of *S. occidentalis* as leafy vegetable is observed mostly from central to northern Benin. It is a minor vegetable rarely eaten even though available year-round. It does not have any important market value (sold by only 3 of of 23 villages where it is consumed). The species is commonly recognised to have a significant medicinal value for rural communities. Like many other *Senna* species, the plant is a purgative. Importantly, it is used in the treatment of malaria and jaundice in all communities. Moreover, it is regularly eaten in sauces by women after childbirth in Bariba and Boko communities in the north and Tchabé in the centre, in order to eliminate blood clots. It is also used as an antibiotic and fodder for livestock. However, fresh beans can be poisonous for cattle (Barth *et al*. 1994).
Threat on genetic resources: Currently, the species does not appear to be under threat.

***Senna sophera* (L.) Roxb.**
Syn.: *Cassia sophera* L.

Local names: Ayawénou (Aïzo), Dougba (Cotafon).
Common names: Senna, Pepper-leaved senna, African senna (English).
Description and variation: Erect annual herb or shrub up to 2-3 m tall, almost glabrous. The leaves which are arranged spirally are paripinnately compound with 4-10 pairs of leaflets, less smelly than other *Senna* species. The upper leaflets are the largest, base rounded, apex acute to acuminate. The inflorescence is an axillary corymb. The bisexual, zygomorphic flowers are yellow; and the fruit is a compressed pod with compressed seeds.
Status: The species originated from tropical America and is probably introduced in Benin. *Senna sophera* is sometimes cultivated, but actually can reproduce spontaneously.
Habitat: Ruderal plant (in secondary habitats such as roadsides and waste places), but can occur in fallows at lower altitudes.
Distribution: The species is pantropical. In Benin, it occurs in the Guinean phyto-geographical zone: Kpinnou; Atchérigbé; Bonou; Houignan-Illé Issaba; Ewé (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Gome (Toffo); Sohounme (Houéyogbé).
Reproductive biology: The plant flowers in January to August, and fruits in August. It propagates by seed.
Utilisations: Leaves are available in the rainy season and are rarely or occasionally consumed by Cotafon and Aïzo communities. As a very minor vegetable species, it does not have any economic importance. It is used for healing malaria in the Cotafon community of Sohounme in southern Benin. *Senna sophera* has been reported to contain anthraquinones, including chrysophanol and emodin.
Threat on genetic resources: It widespread and therefore neither endangered nor liable to genetic erosion.
Further reading: Bosch (2007).

***Tamarindus indica* L.**

Local names: Bupuodu (Gourmatché), Pusika (Waama).
Common names: Tamarin, Tamarinier de l'Inde (Français), Tamarind, Indian tamarind, Sweet sampalok (English).
Description and variation: A tree species, with a leaf with 12-15 pairs of leaflets. The flower petal around 8 mm long is cream-yellow with red-brown dots; the fruit is brown, around 10 cm long with seed surrounded with brown pulp and fibres.
Status: Semi-natural (in domestication in some areas).
Habitat: Parklands, savannahs and gallery forests where it usually occurs on anthills (Fandohan, 2007). The best soil range is from pH 4.0 to 8.0 and it can cope with medium fertile soils. The species is drought tolerant, but shade-sensitive.
Distribution: Igbomakoro; Gonnan, Nikki; Samiondji; Béyarou, Parakou; Tamarou; Loumbou-Loumbou; Tanougou; Porga; Matéri, Doga (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Batia (Tanguiéta); Cotiakou (Tanguiéta).

Reproductive biology: The species is perennial and propagates by seed but also vegetatively. It has a slow growth rate, flowers in March-June and fruits in March, May, October-December.
Utilisations: The acid pulp of the fruit is eaten fresh or used as an ingredient in soups and drinks in northern Benin. In the dry season, Gourmantché communities use tender leaves as a vegetables, but this form of utilisation is rare. The only commercialised organ is the acid pulp of the fruit which is used for its laxative properties, and sold in local and regional markets.
Threat on genetic resources: *Tamarindus indica* is more vulnerable in parklands and savannah woodlands than in riparian landscapes where high tree density is observed.
Futher reading: (Fandohan, 2007).

Leguminosae-Mimosoideae

***Entada africana* Guill. & Perr.**
Syn.: *Entada sudanica* Schweinf.

Local names: Adakatin (Cotafon), Doulou, Kpalo (Kotokoli).
Common names: Néré des éléphants (Français).
Description and variation: Tree up to 5 m tall, bearing white-cream flowers.
Status: Wild.
Habitat: Savannah tree which grows in woodlands and hill sides. It is also found in agricultural lands and disturbed areas.
Distribution: Covè; Dan; Niaro; Ségbana-Kouté; Boukoumbé; Igbo Makoro; Ouabou; Kalalé ; Tanakpé (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémé); Tchimberi (Bassila).
Reproductive biology: Propagation is by seed.
Utilisations: Tender leaves are collected from the wild and used in sauces. The leaves are used rarely even though the resource is abundant year-round. The use of *E. africana* as vegetable has only been recorded in Kotokoli and Cotafon communities in the Sudano-Guinean and in the Guinean regions. It does not have any market value. It is used to treat malaria in the Cotafon community of Assedji and dental caries in the Kotokoli community of Tchimberi. It also has some antihepatotoxic properties.
Threat on genetic resources: Not evaluated.
Further reading: Sanogo *et al*. (1998).

***Parkia biglobasa* (Jacq.) R.Br. ex Benth.**
Syn.: *Mimosa biglobosa* Jacq., *Parkia africana* R.Br., *Parkia clappertoniana* Keay, *Parkia filicoidea* auct. non Welw. ex Oliv.

Local names: Ahwa (Fon, Mahi), Donbukohundu, Sonru (Bariba), Doobu (Waama), Tèyontè (Otammari), Igba (Holly), Solo (Kotokoli), Goré (Anii).
Common names: Néré, Arbre à farine, Arbre à fauve, Mimosa pourpre, Caroubier africain (Français), West-African locust bean tree (English)

Description and variation: Tree up to 15 m tall, bark distinctly longitudinally fissured. The bole is usually straight and robust, cylindrical, up to 130 cm in diameter. The crown is dense, spreading wide and umbrella-shaped, consisting of heavy branches. The leaves are alternate, bipinnately compound and pinnae with 13–60 pairs of leaflets. The leaflets are sessile, oblong. The inflorescence is a pendulous head arranged racemosely. The flowers are bisexual, male or sterile. The fruit is a linear-oblong pod, subcylindrical, glabrous and smooth, usually brown when ripe and many-seeded. The seeds are embedded in a yellowish edible endocarp. There is a very high genetic diversity in *P. biglobosa* both at inter- and intra-population levels.
Status: Wild.
Habitat: The tree occurs in savannas. It is integrated in the agroforestry systems of many socio-linguistic groups particularly in the northern part of the country, and spared during land clearing.
Distribution: Pantropical, widespread in the Sudano-Guinean and Sudanian phyto-geographical zones of Benin. Abomey-Calavi; Dohouimè; Zogbodomey; Tanguiéta.
Specimen of Darwin Project collected for: Cotiakou (Tanguieta); Poto (Banikoara); Ayetedjou (Kétou); Kodowari (Bassila); Zonmon (Zangnanado); Kpassa (Tchaourou); Vossa (Ouèssè); Sovlegni (Djidja); Mondji (Savalou); Tagaye (Natitingou); Akarade (Bassila); Banigri (Tchaourou); Bognongon (Zogbodomey).
Reproductive biology: Perennial and propagation is often by seed which are orthodox. The main pollinators are bats, but insects, such as bees and less often flies and moths also frequently visit the capitula and pollinate flowers. The flowers are protandrous, which facilitates cross-pollination. Animals such as squirrels, monkeys, parrots, etc. contribute to this dissemination. However, humans play an important role in seeds dispersal nowadays.
Utilisations: It produces comestible yellow fruit pulp and seeds are processed and used in soups and sauces as an important ingredient locally called '*afintin*' in Fon socio-linguistic groups, nearly used in the whole country, even in regions where the species does not occur. This fermented product is an important income source for both rural and urban women. Bohicon regional market in the southern Benin is known as the epicentre of this small scale industry. In addition, consumption of leaves is reported in the Kotocoli community of Akaradè in the north-west where tender leaves are collected from trees in fallows and parklands. However, utilisation of leaves is very limited. Boiled and fermented seeds contain 35% proteins, 29% lipids, 16% carbohydrates and have good organoleptic properties and a positive effect on intestinal flora. In many communities it is used to prevent hypertension. Fermented seeds of *Prosopis* species and recently *Glycine max* are used as a substitute for fermented seeds.
Threat on genetic resources: The current conservation status of the species in Benin is not very well known. The increasing exploitation of seeds of *P. biglobosa*, if domestication is not reinforced, may lead to a serious menace in the mid-term.
Further reading: Timmer *et al.* (1996); Sina *et al.* (2002); Teklehaimanot (2004); Bello *et al.* (2008).

Leguminosae-Papilionoideae

***Centrosema plumieri* (Turpin ex Pers.) Benth.**
Synonym: *Clitoria plumieri* Turpin ex Pers.

Local names: Yeyiman (Cotafon).
Common names: Pois puant, Cocotte ferme (Français), Butterfly pea (English).
Description and variation: Perennial creeping herb with large yellow flowers and large pods showing two longitudinal prominent sides.
Status: Introduced from tropical America, it has naturalised in Benin.
Habitat: It colonises fallows in their first stages after cultivation. It occurs also in village vicinities.
Distribution: In Benin it is present in the Guinean region: Allada; Ouèrè, Pobè; Porto-Novo (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémè); Sohounme (Houéyogbé).
Reproductive biology: The species propagates by seed. It flowers and fruits in March.
Utilisations: The species is used as a leafy vegetable by Cotafon communities of Assedji and Sohounme in south-western Benin. It is frequently consumed in Assedji, whereas only occasionally in Sohounme village. In both localities, it has economic importance and is sold in local markets. However, *C. plumieri* is just known as a weed in other communities and sometimes used as cover plant and green fertilizer.
Threat on genetic resources: The species does not appear to be threatened in Benin.
Further reading: Fantz (2004); Njarui *et al.* (2004).

***Crotalaria macrocalyx* Benth.**

Local names: Kuanonman (Waama), Kumalikoungu (Gourmantché).
Common names: Crotalaire (Français).
Description and variation: Prostrate annual or short time perennial herb, ascendant or erect up to 0.9 metre tall. The flower calyx is nearly as long or longer than the legume; the bracteoles are basally fused to the calyx-tube, directed forwards. The leaflets in sets of 3 are broadest around the middle or below; branches have longish appressed hairs.
Status: Wild.
Habitat: Savannah species collected from the neighbourhoods of villages and fallows. It is a pioneer and establishes in the first stage of vegetation growth.
Distribution: Dogo; Alfa Kouara; Tonri; Aoro, Mts Kouffé; Sakabansi; Ségbana; Natitingou; Djougou; Boukoumbé (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Cotiakou (Tanguieta); Tanongou (Tanguieta); Batia (Tanguiéta).
Reproductive biology: The plant propagates by seed and flowers in January, June, September-November and fruits in September-November.
Utilisations: The consumption of tender leaves occurs frequently and the resource is available year-round. It has a slight commercial value in Batia village where it is sometimes sold at the local market. In the Gourmantché communities of Tanougou and Batia, tender leaves are collected, dried and stored up for use in the dry season when the edible organ becomes rare. It is sometimes used in stews, accompanied with cowpea seeds (*Vigna unguiculata*). Also it is said to be used as fodder for livestock.

Threat on genetic resources: Does not appear to be threatened in Benin.
Further reading: Polhill (1982).

Vigna unguiculata* (L.)Walp. ssp. *unguiculata* var. *unguiculata
Syn.: *Dolichos unguiculatus* L., *Vigna sinensis* (L.)Hassk.

Local names: Ayiman (Fon, Mahi, Adja, Cotafon, Aizo, Oueme), Ewa (idatcha, Tchabè, Nagot, Holly), Yangutu (Waama), Atchakabo, Guései (Anii), Blaa (Boko), Suiwurusu (Bariba), Titukpindi, Toutoufari (Gourmantché), Titu'nti (Otammari), Yiman (Cotafon), Yiviman (Aizo), Sonanfadé (Kotokoli).
Common names: Haricot dolique, Dolique mongette, Niébé, Haricot à l'œil noir, Pois aux yeux noirs, Cornille (Français), Cowpea, Black-eye bean, Black-eye pea, Marble pea (English).
Description and variation: *Vigna unguiculata* is a creeping, climbing, trailing or more or less erect annual or perennial herb (but cultivated as an annual). The bisexual, papilionaceous flowersw have different colours. A large genetic diversity of wild types occurs throughout the African continent, with southern Africa being the richest. Five cultivar-groups are generally recognized and the greatest genetic diversity of cultivated cowpea is found in West Africa, in savannah regions. Several varieties are cultivated in Benin.
Status: Cultivated.
Agro-ecology: Cultivated in all agro-ecological zones in Benin and low altitudes in the tropics.
Darwin Initiative 15/003 Project specimen collected from: Gome (Toffo); Gbeko (Dangbo); Mondji (Ouèssè); Zonmon (Zangnanado); Zalimey (Zogbodomey); Kpassa (Tchaourou); Okunfo (Savè); Banigri (Tchaourou); Ayetedjou (Kétou); Wellan (Bassiila); Assedji (Athiémè); Ileman (Dassa-Zoumè); Bognongon (Zogbodomey); Batia (Tanguiéta); Kpakpaza (Glazoué); Akarade (Bassila); Gogbo (Adjohoun); Tanongou (Tanguieta); Moupemou (Natitingou); Bensekou (Kandi); Tagaye (Natitingou); Mareguinta (Kalale); Pouya (Natitingou); Sohounme (Houeyogbe); Sovlegni (Djidja); Cotiakou (Tanguiéta); Agnavo (Dogbo); Loumbou-Loumbou (Karimama); Barikini (Bassila); Vossa (Ouèssè); Akpate (Pobè).
Production systems: The plant is cultivated in all savannah regions and restricted to low and medium altitudes. It can be grown on a wide range of soil types with pH 5.5–7.5, provided they are well drained. In a small-scale farming system, cowpea is central in rotation practices as it is used as green fertilizers to benefit cereal crops. Each year, millions of tonnes of dry cowpea seeds are produced from millions of hectares worldwide. In Benin *V. unguiculata* is one of the major staple crops, where it is grown either as a monocrop or intercropped with maize, sorghum, cassava, etc.
Utilisations: *Vigna unguiculata* is the most important edible pulse in Benin. Seeds are rich in protein (relatively rich in lysine, but poor in S-containing amino acids). They are cooked alone or together with other vegetables. The use of *V. unguiculata* as a vegetable includes use of tender leaves, immature seeds and pods. Leaves are shredded, parboiled and sometimes crushed and used to make different types of soup, sauce and stew. Leaves are also boiled with seeds and cooked together with maize flour for consumption. Immature pods are used for cooking a thick soup. All these dishes are common in the Fon socio-linguistic groups, especially in the rainy season when leaves are abundantly available. In some localities, leaves are occasionally sold in local markets. In addition, *V. unguiculata* is a good fodder and by-products are used to feed livestock after the crop has been harvested. The plant is also said to heal abscess and whitlow.

Threat on genetic resources: There is a great genetic diversity being manipulated by farmers and research institutions. However, genetic resources of *V. unguiculata* are not totally out of danger of being lost since improved cultivars are widely grown.
Further reading: Pasquet (1993); Grubben and Denton (2004), Madamda *et al.* (2006).

Loganiaceae

Spigelia anthelmia L.

Local names: Eriere (Holly), Dan nyè, Alinso, Avlokunma (Fon), Tohossoumanou, Koguede (Cotafon).
Common names: Brinvillière, Herbe à vers, Herbe à la brinvilliers (Français), Wormgrass, Wormbush, West Indian pinkroot (English).
Description and variation: The species is an annual erect herb up to 0.40 m tall. The stem is glabrous, hollow and few branched at the base. The leaves are opposite with an apical pseudo-whorl of 2 decussate pairs, simple and entire. The blade is ovate-oblong to ovate-lanceolate, base obtuse to cuneate, apex acuminate. The inflorescence is a terminal or axillary spike, many-flowered. Flowers are bisexual, regular, 5-merous and sessile; sepals pale green. The fruit is a capsule consisting of 2 ellipsoid parts, green, lobes dehiscent with 4 valves, few-seeded.
Status: Wild, originating from tropical and subtropical America, but has naturalised in tropical Africa.
Habitat: *Spigelia anthelmia* is an invasive weed species which grows in farm areas, waste places and along roadsides.
Distribution: Ouando; Pobè; Kétou; Parakou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémé); Sohounme (Houéyogbé); Akpate (Pobè).
Reproductive biology: The plant propagates by seeds. Flowers are self-pollinated and it can flower and fructify throughout the year.
Utilisations: In Benin, leaves of this species are collected from the wild and consumed rarely in Holly and Cotafon socio-linguistic groups, during the rainy season. Its use in the treatment of eye pains has also been reported by villagers. Recent studies have demonstrated anthelmintic properties.
Threat on genetic resources: As an invasive species, it is not currently threatened in Benin.
Further reading: Jegede *et al.* (2006) ; Ademola *et al.* (2007) ; van der Maesen (2007); Toure *et al.* (2008).

Strychnos innocua Delile

Local names: Potoca (Waama).
Description and variation: The species is a shrub or small tree up to 12 m tall, heavily branched. The flower corollas are cream or green-yellowish. The fruit is globose, orange or yellow.
Status: Wild.
Habitat: *Strychnos innocua* occurs in forest or riparian forest and woodlands. It is widespread in the Sudano-Guinean and Sudanian phyto-geographical zones of Benin.

Distribution: Abomey; Agouagou; Notchi Plateau; Edokomy; Dassa-Zoumè; Parakou; Kouarfa; Daroukpara (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Cotiakou (Tanguieta); Pouya (Natitingou).
Reproductive biology: It propagates by seeds.
Utilisation: Consumption as a leafy vegetable has been recorded in the Waama socio-linguistic group in the far north-west of Benin. The leaves are collected from the wild and the degree of consumption varies depending on localities. For instance the plant is said to be frequently consumed and sold in Cotiakou village whereas in Pouya consumption is rare and occurs in the rainy season. *Strychnos innocua* juice has high sugar content.
Threat on genetic resources: Not evaluated.
Further reading: Bello *et al*. (2008).

Lythraceae

Ammannia baccifera L.

Local names: Worougboho (Bariba), Worukoho (Waama).
Common name: Monarch redstem (English).
Description and variation: The species is an annual herb, up to 0.60 m tall, with a stem with numerous, ascending branches. The leaves are opposite on the basal stem portion, opposite or alternate toward stem apices, narrowly elliptic or oblanceolate to linear, base attenuate, truncate, or subcordate. There can be three to many flowers in dense axillary cymes, the floral tube is campanulate, tapering at base and petals absent.
Status: Wild.
Habitat: *Ammania baccifera* grows in humid locations around pools and along streams.
Distribution: It is present in all agro-ecological zones of Benin: along the river Zou; Aguigadji; Tiélé-Materi; Kpédékpo; Parakou-Djougou; Kandi; Pendjari (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Kpassa (Tchaourou); Pouya (Natitingou).
Reproductive biology: It propagates by seeds.
Utilisations: The plant is available all year-round in the north where it is consumed rarely as leafy vegetable by Bariba and Waama socio-linguistic groups. In the Bariba community fresh leaves are colleted from the wild whereas Waama communities cultivate the species. In both communities, the plant does not have any market value but it is used for medicinal purposes. The plant is used against fever, malaria, jaundice or to eliminate blood clots in women after childbirth. Pharmacological studies suggested that *A. baccifera* whole plant extract arrests spermatogenesis and inhibits steroidogenesis thereby acting as antifertility agent.
Threat on genetic resources: Not evaluated.
Further reading: Dhanapal *et al.* (2005, 2006).

Malvaceae

***Abelmoschus esculentus* (L.) Moench.**
Syn.: *Hibiscus esculentus* **L.**

Local names: Févi, Sinku (Fon, Mahi), Ila (Ifè, Tchabè, Idatcha, Holly), Kobéré éru (Ifè); Nonnou (Mahi); Ogosu, Yabonu, Gangan, Ganganhoun, Woogo, Koobsa, Gnanbonon (Bariba), Féviman (Aïzo, Wémé), Mèldè, Manan (Kotocoli), Ikounnin, Akounbo, Ginuku (Anii), Lafoï, Lafé (Dendi), Yimmani, Kumanfagou (Gourmantché), Nanfama, Maande, Manya (Waama), Kpela, Kpé (Boko), Kobéré eru (Ifè), Yènurè, Kunuruku, Tinufaati (Otamari), Fétri (Adja), Nehun (Cotafon).
Common names: Gombo, Gombaud, Doigt de dame (Français), Okra, Lady's fingers (English).
Description and variation: It is an annual to biennual erect herb, stout, up to 2 m tall and more or less heavily branched. The branches are erect to curving downwards. The leaves arranged spirally, simple, are variable in shape and size. The leaf blade is transversally elliptic to orbicular in outline, up to 50 cm broad, length of midrib up to 35 cm, mostly 3-, 5- or 7-palmatilobed to palmatipartite, cordate at base. The flowers are axillary, solitary or racemose by reduction or abortion of the upper leaves. The fruit is an erect, cylindrical to pyramidal capsule, acuminate, terete to 5–10-angled and many-seeded. Colours of stem, leaves, flowers and fruits vary depending on varieties. However, folk taxonomy is mainly based on the length of reproduction cycles.
Status: Cultivated.
Agro-ecology: The species needs temperatures above 20°C for normal growth and development. It is a short-day plant, but has a wide geographical distribution. Common okra tolerates a wide variety of soils but prefers well-drained sandy loams, with pH 6–7, and a high content of organic matter.
Darwin Initiative 15/003 Project specimen collected from: Bensekou (Kandi); Garou-Tedji (Malanville); Soubado (Pèrèrè); Torozogou (Malanville); Ileman (Dassa-Zoumè); Ganro (Bembèrèkè); Kpakpaza (Glazoué); Zalimey (Zogbodomey); Dabou (Parakou); Gbeko (Dangbo); Gogbo (Adjohoun); Banigri (Tchaourou); Ayetedjou (Kétou); Keremou (Banikoara); Okunfo (Save); Gome (Toffo); Tankougou (Kandi); Zougou-Pantrossi (Gogounou); Kodowari (Bassila); Kargui (Karimama); Penelan (Bassila); Akarade (Bassila); Akpate (Pobè); Barikini (Bassila); Afomayi (Lalo); Mareguinta (Kalale); Bognongon (Zogbodomey); Sovlegni (Djidja); Zonmon (Zagnanado); Wellan (Bassila); Loumbou-Loumbou (Karimama); Ikemon (Ouèssè); Tchimberi (Bassila); Agnavo (Dogbo); Mondji (Savalou); Ekpa (Savalou); Vossa (Ouèssè); Pouya (Natitingou); Assedji (Athiémé); Kpassa (Tchaourou); Cotiakou (Tanguieta); Tamba (Savalou); Sohounme (Houéyogbé); Agbandonou (Allada); Tanongou (Tanguiéta); Tagaye (Natitingou); Batia (Tanguiéta); Poto (Banikoara); Moupemou (Natitingou).
Production systems: A wide range of varieties are grown by farmers countrywide. However, the main cultivation area is located in lowland areas and in valleys in southern Benin where the largest okra farms are observed. This production mostly takes place in the rainy season, although it is observed in the dry season in the Oueme river valley. In urban and periurban agricultural systems, it is produced all year-round. Cultivation and commercialisation of

okra fruits employs many people and contributes significantly to the economy of households in rural and urban areas.
Utilisations: Okra is one of major vegetables in Benin. Fruits are the plant part usually consumed by all socio-linguistic groups. Fresh immature fruits are boiled to make sticky and glutinous soups. They can also be dried and ground to powder for conservation. Young leaves are commonly consumed as spinach and fresh and dried okra products are sold in local as well as regional markets. In comparison with other vegetables, okra is particularly rich in calcium and in ascorbic acid. Protein and lipid contents are very high, about 20% for each constituent. *Abelmoschus esculentus* is also used in traditional medicine, against stomach ache and also to regulate blood pressure.
Threat on genetic resources: It is not under threat.
Further reading: Grubben and Denton (2004).

***Hibiscus asper* Hook.f.**
Syn.: *Hibiscus cannabinus* L. var. *punctatus* (A.Rich.) Hochr.

Local names: Ayoma (Kotocoli); Bootaman (Waama); Gatchounlamgokolé (Anii); Gayouguissima (Dendi); Gbébousséeri (Bariba); Sèénanbolèzian (Boko), Tigbèréti (Gourmantché); Tikansibouoti (Ditamari).
Common names: Hibiscus rigueux, Roselle sauvage (Français), Wild sorrel, False roselle (English).
Description and variation: Annual herb up to 1.5 m tall. The stem is covered with fine prickles and simple or stellate hairs. The leaves are alternate, simple and the leaf blade lanceolate to ovate, unlobed or shallowly to deeply palmately 3–5(–7)-lobed. The flowers are bisexual, axillary, solitary or clustered, regular, 5-merous. The fruit is an ovoid capsule up to 2 cm long, sparsely and finely appressed-pubescent, many-seeded.
Status: Wild.
Habitat: *Hibiscus asper* is widespread in all ecological zones of Benin. It is found in fallows, grasslands, pasture lands and at the edge of riparian forests.
Distribution: Godomey; Zangnanado; Kouaténa; Ilara; Dassari; Bodjrékali (Akoègninou *et al.* 2006)
Darwin Initiative 15/003 project specimen collected from: Ganro (Bembèrèkè); Batia (Tanguiéta); Akarade (Bassila); Soubado (Pèrèrè); Cotiakou (Tanguieta); Dabou (Parakou); Banigri (Tchaourou); Pouya (Natitingou); Bensekou (Kandi); Mareguinta (Kalale); Moupemou (Natitingou); Tagaye (Natitingou); Tanongou (Tanguiéta).
Reproductive biology: The plant propagates by seeds.
Utilisations: Leaves are boiled and consumed as a leafy vegetable by many communities in Benin. This consumption is particularly noticed among socio-linguistic groups in the north, in the Sudanian phyto-geographical zone and takes place mostly in the rainy season. However, the species is consumed quite rarely. *H. asper* is also used to treat malaria and fever and is said to have aphrodisiac properties.
Threat on genetic resources: Not evaluated.
Further reading: Grubben and Denton (2004); Gueye and Diouf (2007)

***Hibiscus sabdariffa* L.**

Local names: Pôôla awagna (Peulh), Gakolo-gabo (Anii); Guissima (Dendi), Iblgui (Gourmantché), Kpakpa (Idatcha, Tchabè), Mainsitou (Waama), Paganaha (Kotocoli), Séénan (Boko), Sééri (Bariba), Sinko (Fon), Tchakpa (Mahi).

Common names: Roselle, Oseille de Guinée, Karkadé, bissap (Français), Roselle, Jamaican sorrel, Indian sorrel, Bissap, Karkadeh (English).

Description and variation: An erect, heavy branching annual herb. The stem is glabrous to sparsely pubescent, sometimes sparsely prickly, green or reddish. The leaves are alternate, simple; the leaf blade shallowly to deeply palmately 3–5(–7)-lobed, sometimes entire. The flowers are solitary in leaf axils, bisexual, regular, 5-merous. The fruit is an ovoid capsule, almost glabrous to appressed-pubescent, enclosed by the calyx, many-seeded. Two cultivars can be distinguished based on stem colours: green and red cultivars.

Status: Cultivated.

Agro-ecology: In Benin, the species is present in all agro-ecological areas and is quite an important vegetable. Roselle is a photoperiod sensitive plant that flowers best when the daylength is shorter than 12 hours. It requires 13 hours/day light during its vegetative growth to prevent premature flowering.

Darwin Initiative 15/003 Project specimen collected from: Vossa (Ouèssè); Kargui (Karimama); Kodowari (Bassila); Okunfo (Save); Dabou (Parakou); Moupemou (Natitingou); Poto (Banikoara); Tagaye (Natitingou); Sovlegni (Djidja); Garou-Tedji (Malanville); Ileman (Dassa-Zoumè); Tamba (Savalou); Ganro (Bembèrèkè); Zougou-Pantrossi (Gogounou); Bognongon (Zogbodomey); Bensekou (Kandi); Tchimberi (Bassila); Mareguinta (Kalale); Akarade (Bassila); Barikini (Bassila); Keremou (Banikoara); Mondji (Savalou); Pouya (Natitingou); Batia (Tanguiéta); Cotiakou (Tanguieta); Tankougou (Kandi); Ikemon (Ouèssè); Banigri (Tchaourou); Kpassa (Tchaourou); Torozogou (Malanville); Soubado (Pèrèrè); Loumbou-Loumbou (Karimama); Tanongou (Tanguiéta).

Production systems: *Hibiscus sabdariffa* is produced in Benin on a smale scale. The monoculture of the plant is rare and often it is cultivated in rows or bands and used to delineate field edges or compartiments.

Utilisations: Useful plant parts available in the rainy season are leaves and perianths. Fresh leaves and whole perianths are used to make a thick soup. The green cultivar is preferred in terms of leaf consumption. The dried perianths of the red variety are used more often to make a drink called *bissap*. Consumption of *H. sabdariffa* is mostly observed in central and northern Benin. In these regions, it is sold in local and even regional markets and contributes to income generation for households. The plant is also used to treat anaemia, malaria, colds, dizziness, measles, and conjunctivitis. It is also an aphrodisiac plant.

Therat on genetic resources: Not evaluated.

Further reading: Grubben and Denton (2004).

Moraceae

***Ficus abutilifolia* (Miq.) Miq.**

Syn.: *Urostigma abutilifolium* Miq.

Local names: Agbèdè (Tchabè), Okpto (Ifè).

Description and variation: *Ficus abutilifolia* is a savannah tree up to 15 m tall, terrestrial. Mature fruits called figs are 1.2-2 cm in diameter; they are reddish or yellowish.

Status: Wild.
Habitat: The tree is usually found in rocky soils in savannah areas.
Distribution: Distribution of *A. abutilifolia* is restricted to two ecological zones: the sector of the dry forests in the Sudano-Guinean phyto-geographical zone and the sector of Combretaceae dry forest which includes thorny steppe in the Sudanian phyto-geographical zone: Savè; Lissa; Tanguiuéta (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Ikemon (Ouèssè); Okunfo (Savè).
Reproductive biology: The plant flowers year-round and propagates by seeds which are dispersed by birds, bats and other dispersal agents.
Utilisations: The consumption of this resource as a vegetable is recorded among Tchabè and Ifè socio-linguistic groups in the Sudano-Guinean zone. However, consumption is occasional or rare even though leaves are available all year-round. Leaves are also used against stomachaches.
Threat on genetic resources: Not evaluated.

***Ficus asperifolia* Miq.**
Syn.: *Ficus acutifolia* Hutch.
Local names: Agbèdè (Tchabè), Gassirè (Anii), Axoxo man (Goun), Evoun (Adja), Frou (Kotocoli), Okpoto (Ifè).
Description and variation: The species is a shrub which reaches 5 m in height, often with extended or semi-climbing branches. Ripe figs are dark red to orange or yellowish, 1-2 cm in diameter.
Status: Wild.
Habitat: Swamp forests.
Distribution: This Guinean species is found in: Adjara; Sèmè; Akassato; Tchakou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Tchimberi (Bassila); Ekpa (Savalou).
Reproductive biology: The plant flowers year-round and propagates by seeds which are dispersed by birds, bats and other dispersal agents.
Utilisations: Consumption of leaves during the rainy season has been recorded in Adja, Anii, Goun, Kotocoli, Ifè and Tchabè communities.
Threat on genetic resources: Not evaluated.

***Ficus ingens* (Miq.) Miq.**
Syn.: *Urostigma ingens* Miq.

Local names: Vo (Fon), Tipètènonti (Otamari), Bukankanbu (Gourmantché).
Description and variation: The species is a tree up to 18 m tall. Its figs are whitish, pink or pale purple to dark purple at maturity, 0.5-1 cm in diameter.
Status: Wild.
Habitat: The tree occurs in savannah areas.
Distribution: Zogbodomey; Djidja; Pèrèrè; Parakou; Pouya; Tanguiéta (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Tchimberi (Bassila); Ekpa (Savalou).
Reproductive biology: Propagation is by seed.

Utilisations: Leaves consumption has been reported among Fon, Berba, and Otamari and Gourmanthé socio-linguistic groups, though only rarely. Depending on the region leaves may be consumed in both the rainy season or the dry season. The leaf macerate is used to treat malaria.
Threat on genetic resources: Not evaluated.

***Ficus polita* Vahl ssp *polita*, Berg**
Syn.: *Ficus polita* Vahl

Local names: Agbaouforo (Ifè), Vo, Voman (Fon, Mahi), Kankanbou (Gourmantché).
Description and variation: A tree species up to 15(-40)m tall, hemi-epiphytic or (secondary) terrestrial with mature figs 1.5-4 cm diameter, greenish to purplish at maturity.
Status: Wild.
Habitat: The tree naturally grows in gallery and riparian forests, and is often found in villages as a shade tree.
Distribution: Bopa; Tanougou; Bembèrèkè (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Bognongon (Zogbodomey); Mondji (Savalou).
Reproductive biology: Propagation is by seed, but stem cuttings may also be used.
Utilisations: Leaves are consumed as a vegetable among Ifè, Fon, Mahi and Gourmantché socio-linguistic groups. However, this consumption is rare and occurs in the rainy season.
Threat on genetic resources: It is not under threat.

***Ficus sur* Forssk.**
Syn.: *Ficus capensis* Thunb.; *Ficus mallatocarpa* Warb.; *Ficus riparia* (Miq.) A.Rich.

Local names: Kannsaaribou (Waama), Voman (Fon), Okpoto (Holly).
Common names: Petit sycomore (Français), Wild fig, Cape fig, Broom cluster fig, Bush fig (English).
Description and variation: A tree species up to 25(-30) m tall, sometimes with buttresses, cauliflorous; the figs are 0.5-3 cm in diameter, red to dark orange at maturity. It contains, like other *Ficus* species, white latex in all aerial parts. The outer bark is brownish to grey or whitish. The leaves are simple, shiny red when young and arranged spirally; the blade is elliptical to ovate or oblong, sometimes nearly orbicular or lanceolate, apex acuminate to acute, margin toothed to wavy or entire. The flowers are unisexual, sessile; the fruit is an ellipsoid to oblong-ovoid drupe 1.5–2 mm long, 1-seeded, developing within the fig.
Status: Wild; domestication underway but mainly for its shade in the countryside.
Habitat: Floodable savannah, riparian and gallery forests, and upland thickets. The tree prefers full sun, but tolerates partial shade. *Ficus sur* grows on a wide range of soil types.
Distribution: Djigbé; Ouidah; Gbananmè; Parakou; Massi; Tanguiéta (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Sovlegni (Djidja); Zalimey (Zogbodomey).
Reproductive biology: Propagation is by seeds and by stem cuttings.
Utilisations: The consumption of tenders leaves is reported in Waama communities in the north-west and in Fon and Holly communities in the south. The Fon in Sovlegni, claim to

have domesticated *F. sur* though in other villages it is reported as wild. The species may be used in the dry or rainy season, and is a resource that is used rarely or occasionally depending on the socio-linguistic group. A leaf decoction is used to treat malaria and headaches. Stem tannins and young shoots are used to treat dysentery and gonorrhoea.
Threat on genetic resources: The species does not appear to be in any serious risk of genetic erosion because of its widespread occurrence. However, certain local populations may be threatened by felling of trees for fuelwood and bark harvesting for medicinal purposes.
Further reading: Lumbile and Mogotsi (2008).

***Ficus thonningii* Blume**
Syn.: *Ficus iteophylla* Miq.; *Ficus dekdekena* Mildbr. & Burret (Miq.)

Local names: Voman (Aïzo), Boukamkambou (Gourmantché), Honbwe (Cotafon).
Common names: Chinese banyan (English).
Description and variation: *Ficus thonningii* is a very large, spreading evergreen tree or shrub can grow up to 30 m tall, and with numerous aerial roots; it is terrestrial or hemi-epiphytic. Mature figs up to 0.5 cm in diameter are reddish or yellowish at maturity.
Status: Wild; domestication underway.
Habitat: This tree species thrives naturally in forest, riparian forest and woody savannah. However, many people plant it as shade tree in villages. It is a full sun species.
Distribution: It is found in all ecological zones in Benin: Athiémé; Savalou; Kalalé; Perma; Natitingou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Agbandonou (Allada); Assedji (Athiémé); Loumbou-Loumbou (Karimama).
Reproductive biology: The species propagates by seed, but use of stem cuttings is more common in villages where it is planted to provide shade during the dry season.
Utilisations: In north-western Benin, Gourmantché communities frequently collect leaves from the wild and consume them as a vegetable in the dry season. In Aïzo and Cotafon communities in southern Benin, consumption of tender leaves collected from both wild or planted trees is occasional or rare.
Threat on genetic resources: The species is internationally vulnerable (IUCN category 2.3), but its status is not evaluated in Benin. Nonetheless, clearance, fragmentation, and degradation of forests and woodlands processes may significatly affect dispersal agents and thereby threaten local populations.
Further reading: Kirika *et al*. (2008).

Moringaceae

***Moringa oleifera* Lam.**

Local names: Agunmonliyé, Djagala (Tchabè), Dréléman, Kpatchi (Adja), Ékégnibo (Yoruba), Gambaaga (Gourmantché), Gbolosolola, Wosso (Boko), Kpatiman, Kpanouyédédé (Fon), Kpatovigbé (Cotafon), Lagalanga (Idatcha, Tchabè), Mansamanbou (Waama), Monnpêkom (Ditamari), Wouidiboutou (Dendi), Yorouyara (Bariba), Yovokpatin, Kpalouman (Mahi).
Common names: Moringe, Mouroungue, Ben ailée, Moringa ailée, Pois quénique, Néverdié (Français), Horse-radish tree, Drum-stick tree, Ben oil tree (English).

Description and variation: Small tree or shrub, deciduous to semi-evergreen, up to 10 m tall. The bark of trunk is whitish, grey or pale buff, smooth or rarely rugose, corky. The leaves are alternate, 2–3-pinnate, with 4–6 pairs of pinnae. The leaflets are elliptical to obovate, rounded to cuneate at base, apex rounded to emarginate. The flowers are bisexual, zygomorphic, 5-merous. The fruit is an elongate 3-valved capsule 10–50 cm long, 9-ribbed, brown when ripe, many-seeded.
Status: Native to northern India and Pakistan, this species is cultivated or planted in Benin as a living fence.
Agro-ecology: *Moringa oleifera* thrives at lower altitudes. It is drought tolerant and is found throughout the country. It can be grown in a wide range of soils but fertile, well-drained soils are most suitable.
Distribution: Cotonou; Dangbo; Savè; Sékou; Okèmèrè (Akoègninou *et al*. 2006)
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Agnavo (Dogbo); Assedji (Athiémé); Banigri (Tchaourou); Bensekou (Kandi); Bognongon (Zogbodomey); Cotiakou (Tanguieta); Dabou (Parakou); Ganro (Bembèrèkè); Garou-Tedji (Malanville); Gbeko (Dangbo); Gogbo (Adjohoun); Gome (Toffo); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Kargui (Karimama); Kpakpaza (Glazoué); Kpassa (Tchaourou); Loumbou-Loumbou (Karimama); Mareguinta (Kalale); Mondji (Savalou); Okunfo (Save); Pouya (Natitingou); Sohounme (Houéyogbé); Soubado (Pèrèrè); Sovlegni (Djidja); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Torozogou (Malanville); Vossa (Ouèssè); Zonmon (Zagnanado); Zougou-Pantrossi (Gogounou).
Production systems: *Moringa oleifera* is used to install living fences in row cropping systems, or as a living stake for twisting or voluble vegetable crops, or for soil regeneration. It is planted in all agroecological zones and reproduces well either by seeds or by stem cuttings.
Utilisations: *Moringa oleifera* is a small multipurpose tree species. Consumption of leaves has become a cultural food habit for many socio-linguistic groups. Leaves, available all year-round are the main frequently consumed plant part, but consumption of flowers is also recorded. The leaves are rich in essential nutrients, glucids, and proteins, so dried leaf powder is recommended to help alleviate malnutrition problems in West African countries, especially for children, pregnant and breast-feeding women. Nearly all of the plant parts are used in traditional medicine. *M. oleifera* has sedative, bactericidal and fungicidal properties. It is used to treat headache, fever, malaria, abscess, conjunctivitis, anaemia, diarrhoea, blindness, ulcer, and to evacuate blood clots from the body and stop vomiting. It is also used as laxative, and aphrodisiac. Leaves specifically are used against fever and spasms.
Threat on genetic resources: It is not under threat.
Further reading: Grubben and Denton 2004.

Nyctaginaceae

***Boerhavia diffusa* L.**
Syn.: *Boerhavia africana* Lour.

Local names: Atchlickèma (Anii), Bitèrèrè (Kotocoli), Gbagbadagbè (Mahi), Tataya (Waama), Tikpalala (Idatcha), Tikpatikpa ilaara (Tchabè), Xwasse (Adja), Blaocona (Boko), Katchudayi, Katchuingahi (Cotafon, Aïzo), Tikpedola, Tikpinninla (Holly), Gangassigourou, Gangansikénou (Bariba).

Common names: Herbe cochon (Français), Spreading hogweed, Red hogweed, Rar vine, Red spiderling (English).
Description and variation: An annual or perennial herb which grows up to 1 m tall; the stem branches mainly from the base, is prostrate when young, ascending to erect when flowering. The leaves are opposite, simple, unequal. The leaf blade is broadly ovate to elliptical, base obtuse, cordate or truncate, apex acute to obtuse, margins sinuate, pale green to whitish beneath, sometimes with red marginal glands. The inflorescence is an axillary, small, often congested irregular umbel, solitary to many-flowered, aggregated in a large diffuse panicle. The fruit is an achene enclosed by the thickened lower part of the perianth, one-seeded.
Status: Wild.
Habitat: A ruderal species and common weed found in farmlands, adandoned areas and along roadsides, preferring sunny sites and usually growing on sandy soils.
Distribution: Cotonou; Abomey Calavi; Houngbo Nagot; Gamaré; Louho; Lama (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Akpate (Pobè); Assedji (Athiémé); Ayetedjou (Kétou); Bensekou (Kandi); Cotiakou (Tanguieta); Dabou (Parakou); Ganro (Bembèrèkè); Ileman (Dassa-Zoumè); Kpakpaza (Glazoué); Sohounme (Houéyogbé); Soubado (Pèrèrè).
Reproductive biology: *Boerhavia diffusa* propagates by seeds. It can be found flowering and fruiting throughout the year, when sufficient water is available.
Utilisations: This herb is a leafy vegetable. Consumption is rare despite its abundant availaibility in the rainy season. It has laxative, diuretic pain-killer properties and other medicinal uses. Leaves have a high vitamin and mineral content, and could be a cheap source of vitamins C, B_3 and B_2, as well as other macro-and micro-nutrients.
Threat on genetic resources: As a weed species with invasive characteristics, *B. diffusa* is not under threat of genetic erosion in Benin.
Further reading: Muzila (2006); Ujowundu *et al.* (2008)

***Boerhavia erecta* L.**

Local names: Bawokonan (Boko), Alakalakafiana (Gourmantché), Tipètènonwonti (Otamari), Zibibéri (Dendi).
Common names: Tar vine, Erect spiderling (English).
Description and variation: A herb which looks similar to *Boerhavia diffusa* but differs by its erect growth habit and its inflorescences which are very ramified with pink to white flowers and non sticky fruits.
Status: Wild.
Habitat: Agricultural lands, fallows, roadsides, abandoned areas (cf *B. diffusa*). It tolerates drought more than does *B. diffusa*.
Distribution: Samiondji; Dassa; Guéné; Bodjékali (Akoègninou *et al*. 2006)
Darwin Initiative 15/003 Project specimen collected from: Batia (Tanguiéta); Kargui (Karimama); Mareguinta (Kalale); Moupemou (Natitingou); Tagaye (Natitingou)**.**
Reproductive biology: Reproduction is by seeds.
Utilisations: A minor leafy vegetable in northern Benin among the Boko, Otamari, Gourmantché and Dendi socio-linguistic groups. Its consumption is rare or occasional and occurs in the rainy season. It does not have any market value. It is used as a vermifuge**.**

Threat on genetic resources: As a weed species with invasive characteristics, *B. erecta* is not threatened of genetic erosion in Benin.
Further reading: Schmelzer (2006).

Onagraceae

***Ludwigia perennis* L.**
Syn. Jussiaea perennis (L.)

Local names: Genandènin (Anii), Toloman (Adja, Fon, Goun).
Description and variation: An annual herb which reaches 1 m in height; the young stem is hairy; the flowers are 6-7 mm in diameter, petals yellow; the fruit is a glabrous or hairy capsule 3-10(-16) mm long, smooth.
Status: Wild.
Habitat: It is found on flooding soils, in rice fields, pools and swamps.
Distribution: Porga ; Bodjékali, Malanville (Akoègninou *et al*. 2006)
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Wellan (Bassila).
Reproductive biology: Propagates by seeds.
Utilisations: Consumption of leaves occurs amongst the Anii in the north-west and amongt the Fon, Adja, Goun in the south. Leaves available are collected in the rainy season from the wild and consumed frequently. In these regions, commercialisation of this traditional vegetable occurs in local markets.
Threat on genetic resouces: Not evaluated.

Opiliaceae

***Opilia amentacea* Roxb.**
Syn.: *Opilia celtidifolia* (Guill. & Perr.).

Local names: Banho, Gbanro (Bariba).
Description and variation: Perennial liana, sometimes erect with straight branches bearing small white greenish or yellowish flowers, with bracts overlapped in a flower bud, smelly. The fruit is a drupe 1 to 3 cm long, orange at maturity.
Status: Wild.
Habitat: Woody savannas, thickets, inselberg sides, and riparian forest edges.
Distribution: Adjarala; Abomey-calavi; Lama; Ouèdèmè-Péda; Toui-Kilibo; Parakou; Pèrèrè; Ouari Maro; Bessassi (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Keremou (Banikoara); Poto (Banikoara).
Reproductive biology: The species propagates by seeds.
Utilisations: *Opilia amentacea* is used as a leafy vegetable only very rarely in nothern Benin, though the species is abundantly available year-round. The species is not commercialized. It has a number of medicinal properties as it is used in the treatment of malaria nd fever. It is also credited with aphrodisiac properties.
Threat on genetic resources: Not evaluated.

Passifloraceae

Adenia lobata (Jacq.) Engl.

Syn. *Modecca lobata* **Jacq**.; *Adenia mannii* (Mast.) Engl.; *Adenia schweinfurthii* Engl.; *Adenia rumicifolia* Engl. & Harms

Local names: Soonou (Anii), Donwada, Dema, Dedo (Fon, Goun).
Description and variation: A climbing herb, large liana, usually dioecious, smooth stem up to 45 m long. The stem bark is green to red-brown. The stem produces a clear sap, turning red; the stem has simple or 3(-7)-fid tendrils. The leaves are alternate, simple; the stipules triangular and falling easily. The leaf blade is entire or sinuate to palmately 3–5(–7)-lobed, elliptical to ovate or orbicular in outline, base deeply cordate, apex acuminate. The flowers are unisexual, regular, 5-merous, yellowish. The fruit is an obovoid to globular or ellipsoid capsule, leathery or fleshy, yellow, smooth or lumpy, many-seeded.
Status: Wild.
Habitat: *Adenia lobata* is found in woody savannahs, forest edges, secondary forests, and farmlands. Its distribution area includes agro-ecological zones of south Benin and the sector of "Dry semi-deciduous forest, fire zone subtype" in the north-west of the Sudano-Guinean phyto-geographical zone.
Distribution: Niaouli; Ahogbaya; Djaloukou (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Agbandonou (Allada); Bognongon (Zogbodomey); Penelan (Bassila).
Reproductive biology: The plant flowers throughout the year but fruits are mainly present from July to November. It regenerates rapidly after bush fires and fresh edible leaves are harvested by communities in this period.
Utilisations: Leaves are collected from the wild and consumed as a vegetable among the Anii in the north, and among the Aizo and Fon socio-linguistic groups in the south. This consumption is rare or occasional though leaves are available year-round. Penelan village reported that they used it to treat dizziness.
Threat on genetic resources: Not under threat of genetic erosion.
Further reading: Zimudzi (2007).

Passiflora edulis Sims

Local names: Lokoyovo (Aizo).
Common names: Grenadille, Maracuja, Fleur de la passion, Passiflore (Français), Passion fruit (English).
Description and variation: Perennial liana, up to 25 m long, globrous; leaves deeply 3-lobed; flowers whitish 4-7 cm width; fruit an ellipsoid or globose berry, greenish to purplish, many-seeded, enrolled in a whitish pulp.
Status: Cultivated, but naturalized as well in fallows.
Distribution: Lama; Pobè (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Agbandonou (Allada); Gome (Toffo).
Reproductive biology: Propagation is by seed.

Utilisations: Cultivated for its fruit, but used as leafy vegetable as well. It is frequently consumed in Aizo communities and available year-round. However, only fruits are sold in the market.
Threat on genetic resources: Not evaluated.

***Passiflora foetida* L.**

Local names: Gbatotwe (Cotafon), Awontimèfoun (Aïzo).
Common names: Passiflore, Fleur puante de la passion (Français).
Description and variation: A climbing herb. The leaves are 3-lobed; the flower bud surrounded by pinnatisect, leathery and glandulous bracts, with white petals; the fruit is a green berry, orange at maturity and containing many black seeds enrolled in a whitish pulp.
Status: Wild.
Habitat: Grows in fallows and ruderal areas. It occurs also as a farm weed.
Distribution: Togbin; Zangnanado; Okpara; Aguigadji; Kargui (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémé); Agbandonou (Allada).
Reproductive biology: Propagation is exclusively by seeds.
Utilisations: Leaves are used as a soup ingredient in south Benin by Cotafon and Aïzo communities. Consumption is frequent all year-round. It is also used in the treatment of kwashiorkor.
Threat on genetic resources: It is not under threat of genetic erosion.

Pedaliaceae

***Ceratotheca sesamoides* Endl.**
Syn**.** *Ceratotheca melanosperma* Hochst**.** ex Bernh.; *Sesamum heudelotii* Stapf

Local names: Agbô (Mahi), Dowoungbana (Boko), Foyito (Dendi), Gblôgblô (Péda), Golo (Tchabè), Goufounou (Anii), Idjabo (Tchabè, Idatcha), Kanmankou (Fon), Koufouagnanhoun (Gourmantché), Koumonkoussoulè (Ifè), Wori (Bariba), Likwakwati, Tikôkti, Siwadompéi (Ditamari), N'zoti (Kotocoli), Taanonwonman (Waama), Xonônm (Lokpa).
Common names: Faux sésame (Français), False sesame (English).
Description and variation: An annual pubescent (sub)erect herb up to 1.2 m tall, sometimes with woody rootstock. The stems are pubescent with prostrate, ascending or erect hairs. The leaves are opposite or nearly opposite and simple. The leaf blade is lanceolate-deltate to ovate-triangular or narrowly ovate, truncate, broadly cuneate or slightly hastate at base, acute at apex. The flowers are solitary in leaf axils, bisexual, zygomorphic, 5-merous, with corollas purple, red-purplish or white. The fruit is an oblong-quadrangular capsule 1–2 cm long, compressed laterally, with slender lateral horns up to 3.5 mm long, loculicidally dehiscent, many-seeded.
Status: Wild; domestication underway.
Habitat: *Ceratotheca sesamoides* is an indigenous wild vegetable which shows a wide range of adaptability and environmental flexibility. It is found in open woodland, grassland, and

woody savannah over well-drained sandy soils and along roadsides. The plant occurs also as a weed in formerly cultivated fields.
Distribution: Agondogoui; Gokana; Bassila; Lou; Borodarou; Kopargo; Guéné; Alfa Kouara (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Akarade (Bassila); Banigri (Tchaourou); Batia (Tanguiéta); Bensekou (Kandi); Cotiakou (Tanguieta); Dabou (Parakou); Ekpa (Savalou); Ganro (Bembèrèkè); Garou-Tedji (Malanville); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Kargui (Karimama); Keremou (Banikoara); Kodowari (Bassila); Kpakpaza (Glazoué); Kpassa (Tchaourou); Loumbou-Loumbou (Karimama); Mareguinta (Kalale); Mondji (Savalou); Moupemou (Natitingou); Kunfo (Save); Penelan (Bassila); Poto (Banikoara); Soubado (Pèrèrè); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Tchimberi (Bassila); Torozogou (Malanville).
Reproductive biology: Propagation is by seeds. Seeds are dormant and germination percentages usually low. It is primarily self-pollinated, but bees, flies and other insects may play a part in the process.
Utilisations: Domestication of this vegetable is recorded in many regions in central and north Benin. Leaves and flowers are frequently consumed in the rainy season when abundantly and are sold in local markets. Leaves are boiled into glutinous soups. For its use in the dry season, leaves are dried and ground to powder for storage. This herb also has many medicinal uses. It is used to treat diarrhoea, dysentery, headaches, stomachaches, and dystocia. In addition it strengthens pregnant women and disinfects the digestive system. It is often susbstituted with *Sesamum indicum* in many areas.
Threat on genetic resources: The resource is still found in the wild and does not appear to be under threat of genetic erosion.
Further reading: Grubben and Denton (2004); Dabade (2009).

***Sesamun indicum* L.**
Syn. *Sesamun orientale* L.; *Volkameria orientalis* (L.) Kuntz

Local names: Agbo (Mahi), Akanmaku (Fon), Dohoungbana (Boko), Dossi (Bariba), Gosanafunu, Gufunougutolo (Anii), Kuaan'gu, Kufoagnagu, Kouagniboubougou (Gourmantché), Taanonman, Nonman (Waama), Sihaadompéi, Tikokuti, Tipaakaadonti (Otamari), Wari (Bariba).
Common Names: Sésame de l'Inde (Français), Benne, Benniseed, Sesame, Gingelly (English).
Description and variation: Like other *Sesamum* species, *S. indicum* is an annual herb. It is stout, erect up to 2m tall. The leaves are decussately opposite in lower parts, arranged spirally and 3-lobed to 3-foliolate in upper parts. The fruit an oblong-quadrangular capsule 1.5–3 cm long, hairy, with a short triangular beak at the apex, grey-brown at maturity, loculicidally dehiscent, many seeded.
Status: The species has been introduced in Africa from India. Curently the plant has naturalized and becomes weedy and wild.
Habitat: The plant grows in farm fields, fallows, forests and savannah both in Guinean and Sudanian zones. It is widespread in all agroecological zones of Benin.
Distribution: Dan ; Tektibayaou ; Karimama (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Banigri (Tchaourou); Barikini (Bassila); Batia (Tanguiéta); Bensekou (Kandi); Cotiakou (Tanguieta); Ganro (Bembèrèkè);

Kpassa (Tchaourou); Loumbou-Loumbou (Karimama); Moupemou (Natitingou); Pouya (Natitingou); Sovlegni (Djidja); Tagaye (Natitingou); Tanongou (Tanguiéta); Vossa (Ouèssè); Zonmon (Zagnanado).
Reproductive biology: Reproduction is by seed.
Utilisations: Originally cultivated for its seeds sold under the name of "sesame grain", it has become an indigenous leafy vegetable very similar to *Sesamum radiatum* and *Ceratotheca sesamoides* in terms of taste and appearance. Leaves are used to make a glutinous sauce. Its consumption is rare among communities of south Benin, whereas in the central and northern regions it is more frequently consumed. In these regions the species has a great market value and is sold in local markets. Leaves are available from wild or cultivated plants. Fresh leaves are only available in the rainy season, but the plant can be dried, ground to powder and conserved for use in the dry season.
Threat on genetic resources: It is not under threat.
Further reading: Grubben and Denton (2004); Mkamilo and Bedigian (2007).

***Sesamum radiatum* Schumach. & Thonn.**
Syn. *Sesamopteris radiate* (Schumach. & Thonn.)

Local names: Agbô (Mahi), Akanmako (Fon), Goolowo, Dossé (Tchabè), Dossi (Bariba, Boko), Kouangou (Gourmantché), Nonman, Nôrman (Waama, Dendi, Yom), Touandouanti (Ditamari), Touxoonôm (Lokpa), Agbon (Adja), Agblo (Aïzo), Lakuta (Dendi/Djerma).
Common names: Sésame sauvage (Français), Wild beniseed, Black benniseed (English).
Description and variation: *Sesamum radiatum* is an annual erect herb, up to 1.5 m tall. The stem is simple or branched, glandular pubescent. The leaves are opposite or alternate in upper part of plant, simple. The leaf blade is lanceolate to ovate or elliptical, cuneate to obtuse at base, acute at apex, coarsely serrate in lower leaves, usually entire in the upper leaves. Differing from *Ceratotheca sesamoides* and *Sesamun indicum*, the fruit is an oblong-quadrangular capsule 2–3.5 cm long, slightly compressed laterally, pubescent, with a very short beak at the apex, often with 2 lateral short protuberances, loculicidally dehiscent, many-seeded.
Status: Wild; domestication under way.
Habitat: It is an African indigenous species. It grows in farm fields and fallows. It is also found in ruderal stations and is common in savannah areas. It grows where few other herbaceous plants grow, on nutritionally poor sites, growing in gravelly, sandy and rocky grounds.
Distribution: Grand Popo; Irokohin; Gnassata; Illikimou; Kotopounga (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Dabou (Parakou); Agbandonou (Allada); Ganro (Bembèrèkè); Garou-Tedji (Malanville); Keremou (Banikoara); Soubado (Pèrèrè); Tankougou (Kandi); Torozogou (Malanville); Zougou-Pantrossi (Gogounou).
Reproductive biology: It propagates by seed.
Utilisations: Fresh leaves of *S. radiatum* which is under cultivation by many socio-linguistic groups, are used as a leafy vegetable especially in communities in northern and central Benin. The leaves, cut into fine pieces are used to make a glutinous sauce, or used in soups. Fresh leaves are mainly available in the rainy season and frenquently consumed and sold in

local markets. Grain consumption has also been recorded. *S. radiatum* has many other medicinal and cosmetic uses. For instance, leaves are used against diarrhoea and vomiting.
Threat on genetic resources: It is not under threat.
Further reading: Grubben and Denton (2004); Dabade (2009).

Poaceae

Cymbopogon giganteus (Hochst) Chiov.

Local names: Timammuti (Otamari).
Common names: Tsauris grass (English).
Description and variation: The perennial herb *Cymbopogon giganteus* is up to 2.5 m tall. The leaves are blue-green, slightly aromatic. The flowers are arranged in a dense and thin panicle.
Status: Wild.
Habitat: It grows in grasslands, savannahs, stream edges, riparian and gallery forests, fallows and saxicolous areas.
Distribution: Porga; Kétou; Lanta; Djidja; Savè; Karimama (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Tagaye (Natitingou); Moupemou (Natitingou).
Reproductive biology: Propagation is by seeds and also knotty stem cuttings.
Utilisations: This grass is consumed rarely by the Otamari group in north-western Benin. The leaves, which are available all year-round, are collected from the wild and used (occasionally together with the roots) to season bush meat before cooking. However, the plant does not have any market value. The Otamari communities may also use it to treat coughs. The species can be used to treat chloroquine resistant *Plasmodium yoelii nigeriensis* (a parasite which causes malaria).
Threat on genetic resources: not evaluated.
Further reading: Kimbi and Fagbenro-Beyioku (1996); Alitonou *et al*. (2006); Boti *et al.* (2006); Kassa *et al* (2007)

Polygonaceae

Persicaria senegalensis (Kunth) M.Gómez

Syn. *Polygonum acuminatum* Kunth

Local names: Towé (Aizo), Lolouma (Ouémè).
Common name: Tapertip Smartweed (English).
Description and variation: *Persicaria senegalensis* is a perennial erect or semi-slanted herb, up to 1 m tall. The flower corollas are white and the fruits lenticular.
Status: Wild.
Habitat: The species occurs in swamps, wetlands, riparian zones. It also occurs in agricultural or disturbed areas, natural forest, planted forests, grasslands.
Distribution: Parakou; Tchatchou; Okpara (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Gbeko (Dangbo); Gogbo (Adjohoun).

Reproductive biology: Propagation is by seeds. The plant flowers and fruits in Mai, December.
Utilisations: Fresh leaves are collected wild year-round and cooked in sauces. They are sold in local markets even though consumption is sporadic. The species can also be used to treat ulcers.
Threat on genetic resources : Not evaluated.

Portulacaceae

Portulaca oleracea L.

Local names: Afouwôbôkpaba, Aboualènan (Gourmantché), Mouroumaratchi, Mourou Mandjé, Awoudéenain, Houadénin (Dendi), Louakpain (Boko), Ninkounmangbaxhagnoe, Dehounkan (Wémè).
Common Names: Pourpier, Pourpier potager (Français), Purslane, Garden purslane, Pigweed (English).
Description and variation: *Portulaca oleracea* is an annual erect or semi-prostrate succulent herb, up to 0.5 m tall. The plant is green to reddish or brownish, glabrous but hairy at the knots when young. The leaves are alternate to more or less opposite or in whorls on branchlets, simple. The leaf blade is shiny, obovate to spatulate, cuneate at base, rounded at apex and entire. The inflorescence is a sessile cluster at the branch tips, up to 8-flowered, often overtopped by branches growing from leaf axils. The flowers are bisexual and regular. The fruit is an ovoid capsule c. 4 mm long, circumscissile just below the middle, many-seeded. *P. oleracea* is variable, with diploid, tetraploid and hexaploid populations. Several subspecies have been distinguished, mainly based on seed size and seed-coat morphology.
Status: Wild.
Habitat: Purslane is a farm weed but also found in open shrublands and ruderal stations. It has relatively high water requirements. It tolerates a wide range of soil types, but prefers sand or sandy loams. It is also salt tolerant.
Distribution: Cotonou; Calavi; Porto Novo; Kouandé; Samiondji (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Batia (Tanguiéta); Bensekou (Kandi); Garou-Tedji (Malanville); Gogbo (Adjohoun); Kargui (Karimama); Loumbou-Loumbou (Karimama); Tanongou (Tanguiéta); Torozogou (Malanville).
Reproductive biology: The plant propagates by seeds which are easily dispersed by water and wind, with crop seeds or through bird droppings. Development does not appear to be influenced by photoperiod and flowering occurs early and year-round. It generally self-pollinates in the bud.
Utilisations: Fresh stems and leaves are harvested from the wild. In north Benin, it is consumed by Gourmantché, Dendi and Boko communities. This consumption occurs in the rainy season and the frequency varies depending on the socio-linguistic group. Sale of leaves in local markets has been recorded only in Dendi communities. In the south, the plant is frequently consumed by Wémè communities in the Ouémé valley, who collect it after the flood water level has dropped. The plant is said to have many medicinal uses. For instance it is used against rheumatism, gynaecologic diseases, dysentery, fever and other infections.
Threat on genetic resources: Not threatened in Benin.
Further reading: Grubben and Denton (2004)

***Talinum triangulare* (Jacq.) Willd.**
Syn. *Portulaca triangularis* Jacq.; *Talinum fruticosum* auct. non (L.) Juss.

Local names: Tokpédé fonton, Glassoeman (Fon, Ifè), Ordondon (Tchabè), Kpodo (Idatcha), Tokpessindji (Mahi), Ododo, Tokpodé (Ifè), Dodo ikpokpo, Gourè (Holly), Glassoeman (Mahi), Bôkôbôkô (Anii), Glasséman (Wémè), Glassi, Glassoué (Cotafon), Glasso (Toli), Glazoui (Adja), Gourè (Yoruba), Kamplékankann'dê (Lokpa), Kpôdô (Idatcha), Odôndôn (Bariba, Tchabè), Yêmontouo (Ditamari).
Common names: Pourpier droit, Pourpier tropical, Grassé (Français), Waterleaf, Talinum, Ceylon spinach (English).
Description and variation: *Talinum triangulare* is an erect, glabrous perennial herbaceous plant up to 0.4 m. It is often heavily branched with succulent stem and leaves. Leaves are alternate, simple, almost sessile. The leaf blade is obovate to spatulate, base long-tapering, apex rounded to notched, mucronate, entire, venation pinnate, indistinct. The inflorescence is a terminal cyme on a triangular stalk. The flowers are bisexual, regular with pink petals. The fruit is a globose to ellipsoid capsule, 3-valved, elastically dehiscent, many-seeded.
Status: Wild, domestication under way.
Habitat: Waterleaf is a weedy plant found in humid stations.
Distribution: It is a cosmopolitan weed common throughout the humid tropics. In Benin, it is widespread and occurs in all phyto-geographical zones: Calavi; Porto Novo; Pobè; Sakabansi (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Agnavo (Dogbo); Akpate (Pobè); Assedji (Athiémé); Ayetedjou (Kétou); Banigri (Tchaourou); Barikini (Bassila); Bognongon (Zogbodomey); Dabou (Parakou); Ekpa (Savalou); Gbeko (Dangbo); Gogbo (Adjohoun); Gome (Toffo); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Kodowari (Bassila); Kpakpaza (Glazoué); Mareguinta (Kalale); Mondji (Savalou); Okunfo (Save); Penelan (Bassila); Pouya (Natitingou); Sohounme (Houéyogbé); Sovlegni (Djidja); Tagaye (Natitingou); Tamba (Savalou); Vossa (Ouèssè); Wellan (Bassila); Zalimey (Zogbodomey); Zonmon (Zagnanado).
Reproductive biology: Propagation is by seed and root cuttings. Waterleaf is recorded as being self-pollinated with a limited degree of out-crossing. The onset of flowering does not appear to affect leaf or shoot production. Under natural conditions, it will live for 4–6 months. It is relatively drought tolerant.
Utilisations: Waterleaf is widely consumed across the country. Leaves are harvested from the wild during the rainy season, and consumption frequency varies depending on communities. For example it is frequent among Ifè, Tchabè, Idatcha and Bariba in the centre and the north. In the south, communities consume this indigenous vegetable to a lesser extent. The leaves were sold in local and regional markets in all villages where it was recorded, for Sohounme, Kodowari and Penelan villages. It would appear to have some antinutritional properties. Overconsumption or insufficient cooking gives diarrhoea and stomachache. It is also difficult to prepare because it is highly glutinous. Several medicinal uses have been reported by communities. It is used to treat dystocia, to stop bleeding, and as contraceptive.
Threat on genetic resources: Not under risk of genetic erosion in Benin.
Further reading: Grubben and Denton (2004)

Rubiaceae

Chassalia kolly (Schumach.) Hepper

Syn. *Psychotria kolly* Schumach.

Local names: Djètinman (Fon), Gubodjunon (Anii).
Description and variation: *Chassalia kolly* is a shrub which grows 0.5-3 m tall. Its flowers are green to purple.
Status: Wild.
Habitat: It is found in riparian forest. It is mostly part of the undergrowth in semi-deciduous forests in southern Benin, but occurs also in fallows in this region.
Distribution: Its distribution areas include ecological zones in the south of the country but the plant is also found in the sector of "Dry semi-deciduous forest, fire zone subtype" of the north-western part of the Sudano-Guinean phyto-geographical zone: Abomey-Calavi; Togba; Gbanannmè; Aguigadji; Hoenbo Nago; Zoungbonou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Wellan (Bassila); Bognongon (Zogbodomey).
Reproductive biology: It propagates by seeds.
Utilisations: Consumption of fresh leaves has been recorded amongst the Fon in the south and the Anii in the north. The leaves which are available all year-round are harvested from the wild, but consumed rarely in both communities. It is additionally used to treat baby fontanelle pains.
Threat on genetic resources: Not evaluated.
Further reading: Ganglo (2001).

Gardenia ternifolia Schumach. & Thonn.

Local names: Gapèpè (Anii), Bunasoobu (Gourmantché), Timeiti (Otammari), Bèbiré (Waama).
Description and variation: The plant is a shrub which grows 1-6 m tall; the leaves are glabrous; the flowers are white turning yellow.
Status: Wild.
Habitat: Shrub savannah.
Distribution: Spread in all phyto-geographical zones in Benin, but most common in the Sudanian and Sudano-Guinean zones: Béké; Goro; Tamarou; Lanta; Kokaboa (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Barikini (Bassila); Batia (Tanguiéta); Cotiakou (Tanguieta); Tagaye (Natitingou).
Reproductive biology: Propagation is by seed and perennial shooting from roots.
Utilisations: *Gardenia ternifolia* is consumed in north-western Benin. Fresh young leaves and flowers are harvested from the wild only rarely in the rainy season. The plant does not have any market value. It is used to treat stomacheaches, toothaches and kwashiorkor, and it is a vermifuge.
Threat on genetic resources: Not evaluated.

Macrosphyra longistyla **(DC.) Hiern**

Local names: Aziguidigokui, Zébligohoun (Aïzo), Azonhoungogoé (Cotafon), Tiluomugbadi (Gourmantché).
Description and variation: A lianoid shrub, up to 3.6 m tall; the flower buds are yellow or greenish; the leaf blade is whitish.
Status: Wild.
Habitat: Deciduous forest undergrowth, occurs as well in riparian forests.
Distribution: Togba; Kinkinhoué; Adjohoun; Affamé; Kotopounga; Kotiakou (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Agbandonou (Allada); Gbeko (Dangbo); Sohounme (Houéyogbé); Tanongou (Tanguiéta).
Reproductive biology: Propagation is by seeds.
Utilisations: Fresh leaves collected from the wild are consumed by Gourmantché communities in the north and Aïzo and Cotafon in the south. However, it does not have any market importance. Consumption level and period vary depending on socio-linguistic groups. For instance it is used frequently in the Gourmantché community in the dry season, whereas the Aïzo community use this resource year-round.
Threat on genetic resources: Not evaluated.

Rutaceae

Afraegle paniculata **(Schumach. & Thonn.) Engl.**
Syn. *Citrus paniculata* Schumach. & Thonn. Engl.; *Balsamocitrus paniculata* (Schumach. & Thonn.) Swingle

Local names: Hongogwé, Buhwe (Cotafon, Fon), Bueru (Bariba).
Description and variation: A shrub or tree up to 16 m tall. The flowers are white and fruit yellowish 1-4 cm diameter.
Status: Wild.
Habitat: Grows in forest, but is also planted in villages for its medicinal uses.
Distribution: Tchétou; Bétérou; Dan; Manigri (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Banigri (Tchaourou); Sohounme (Houéyogbé).
Reproductive biology: Propagates by seeds.
Utilisations: This species is used rarely as a leafy vegetable among Cotafon communities in the south and Bariba in the north. In this community a sauce made up of powder from the ground roots is used by women after childbirth.
Threat on genetic resources: Not evaluated.

Zanthoxylum zanthoxyloides **(Lam.) Zapernick & Timler**
Syn.: *Fagara zanthoxyloides* Lam.

Local names: Karikoobu, Tampuobu (Waama), Lifrubiale (Gourmanthé), Mubuo, Tibooti (Otamari), Goutèlowè, Goka (Anii), Xêtin, Drubi, Xè (Fon).

Description and variation: A tree or shrub branching from the base, up to 12 m tall; the bole has many hard spines; the abundant leaves are very smelly; the flower is cream white. The wood is yellow.
Status: Wild.
Habitat: Fallows, thickets, agricultural lands, open forest, forest edges, woody savannah.
Distribution: It Togbin; Cotonou; Lougba; Avégamè; Ouidah; Kpomassè; Ouankou (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Barikini (Bassila); Cotiakou (Tanguieta); Kodowari (Bassila); Pouya (Natitingou); Moupemou (Natitingou); Tagaye (Natitingou); Tanongou (Tanguiéta).
Reproductive biology: Propagation is by seeds. The plant also shoots from the stem base.
Utilisations: Anii, Waama, Otamari and Gourmatché socio-linguistic groups in the north-western part of the county use the root bark. However, the consumption level and period vary depending on the socio-linguistic group. The plant is mainly harvested from the wild and is sold either in local or regional markets. The species is said to be under domestication in the Waama community of Pouya. In traditional medicine, it is used to eliminate blood clots in newly nursing women and to stimulate appatite. It is also said to be a galactogenic plant.
Threat on genetic resources: This multipurpose plant which is used for medicine, food, fuelwood is under intense harvesting pressure. Harvesters mainly target the root of this plant.

Sapindaceae

Blighia sapida König

Local names: Lisetin (Fon), Ishin jijè, Ishin oko (Holly, Idatcha, Ifè, Tchabè), Goulèkahunbo (Anii), Sissi (Mahi), Mèfodommè, Moufodomou (Ditamari), Derebu, Direbu (Bariba).
Common names: Blighia savoureuse, Ris de veau, Pommier finsam, Arbre sarriette (Français).
Description and variation: A tree which grows to 15-20 m tall. The flowers are arranged in axillary clusters; the fruit is vermillion to scarlet at maturity and contains 3 black seeds with yellow aril.
Status: Wild; domestication under way.
Habitat: The tree is naturally found in forests, but it is usually planted in villages by communities in all ecological zones of Benin.
Distribution: Zogbodomey; Ewè; Savalou; Adjaha; Dassa (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Akarade (Bassila); Akpate (Pobè); Ayetedjou (Kétou); Banigri (Tchaourou); Barikini (Bassila); Bensekou (Kandi); Cotiakou (Tanguieta); Dabou (Parakou); Ileman (Dassa-Zoumè); Kpakpaza (Glazoué); Kpassa (Tchaourou); Mareguinta (Kalale); Mondji (Savalou); Moupemou (Natitingou); Okunfo (Save); Pouya (Natitingou); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Wellan (Bassila); Zalimey (Zogbodomey); Zougou-Pantrossi (Gogounou).
Reproductive biology: The species propagates by seeds.
Utilisations: The yellow aril of the fruit and the tender leaves are the edible parts of the plant. The aril is used to make sauce or as a soup ingredient by many communities. It may be

dried and conserved for use. Fresh leaves are cooked in the same way as *Amaranthus* leaves. Consumption is frequent and fruit arils are sold in local markets. It is also used to treat anaemia and scabies.
Threat on genetic resources: It is not under threat.
Further reading: Ekue *et al.* (2009).

***Deinbollia pinnata* (Poir.) Schumach. & Thonn.**
Syn.: *Ornitrophe pinnata* Poir. ; *Deinbolia dohomensis* A.Chev.

Local names: Kotakédé, Ganhotin (Fon), Fléfitchi (Adja), Ganhokpovi (Mahi), Wamonnonfitin (Cotafon).
Description and variation: A shrub or small tree; the inflorescence is erect at the tip of branches; the flowers are cream white; the fruit is orange.
Status: Wild.
Habitat: Fallows, forests and savannah.
Distribution: The plant is found in the Guinean phyto-geographical zone: Atchérigbé; Dassa; Djaagbalo; Lama (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agnavo (Dogbo); Assedji (Athiémé); Ayetedjou (Kétou); Bognongon (Zogbodomey); Gome (Toffo); Sohounme (Houéyogbé).
Reproductive biology: It propagates by seeds.
Utilisations: Fresh leaves of this shrub are consumed particularly by communities in the south, but they are not sold. The edible part is abundant in the rainy season, however consumption levels vary depending on socio-linguistic groups.
Threat on genetic resources: Not evaluated.
Further reading: Ganglo (2001)

Sapotaceae

Vitellaria paradoxa* C. F.Gaert. ssp *paradoxa
Syn. *Butyrospermum niloticum* Kotschy; *Butyrospermum parkii* (G.Don) Kotschy; *Butyrospermum paradoxum* (C. F.Gaert.) Hepper

Local names: Koula (Boko), Wugo, Kotoble (Fon).
Common names: Karité, Arbre à beurre (Français), Shea-butter tree, Shea tree, Bambouk butter tree, Galam butter tree (English).
Description and variation: *Vitellaria paradoxa* is a deciduous tree species up to 15(–25) m tall. The bole is short, usually 3–4 m long, up to 100 cm diameter; the bark is blackish, greyish or reddish, rough, deeply fissured and splitting regularly into corky square or rectangular scales, producing white latex when cut or scratched. The leaves are arranged spirally, mostly in dense clusters at the tips of branches, simple. The leaf blade is lanceolate to ovate-oblong, base cuneate to rounded or slightly cordate, apex rounded to acute. The inflorescence is a dense fascicle at the end of a twig, many-flowered. The flowers are bisexual, regular, white or creamy white and fragrant. The fruit is a globose to ellipsoid berry, initially green but turning yellowish green or brown at maturity, 1(–2)-seeded.
Status: Wild, domestication under way.

Habitat: Characteristic of West African savannah, it occurs in Benin in woody savannahs, fallows and agricultural lands. It grows on a variety of soils, but prefers colluvial slopes with moderately moist, deep soils, rich in organic matter. The tree has been integrated in agroforestry practices of many socio-linguistic groups particularly in northern regions of the country, where it is spared in farm fields during land clearance. However, the major part of the harvest is from trees in their natural habitat. The main product of the tree are seed kernels, for their high oil content.
Distribution: *Vitellia paradoxa* is widespread in the Sudano-Guinean and Sudanian phyto-geographical zones of Benin: Ouémé; Zou; Gbéré; Djidja; Kandi; Kouaténa (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Bensekou (Kandi).
Reproductive biology: The plant **r**eproduces by seeds. Seeds are recalcitrant and require particular treatments for reproduction purposes.
Utilisations: The tree is known for its edible fruits and the processing of its kernels into butter which traditionally constitute an important income source for local communities in the north. Additionally, young leaves of the shea tree are occasionally collected and consumed by Boko communities in Bensekou. It is also used to treat malaria and diarrhoea.
Threat on genetic resources: Does not appear to be at risk of genetic erosion.
Further reading: Lovett and Haq (2000); Maranz and Wiesman (2003); Bouvet *et al*. (2004); Teklehaimanot (2004); Nikiema and Umali (2007).

Solanaceae

***Physalis angulata* L.**
Syn.: *Physalis minima* L.

Local names: Bobobobo, Goutawountara, Gotamta (Anii).
Commons names: Plante lanterne, Coqueret anguleux (Français), Cape gooseberry (angular), Winter cherry, Hogweed, Balloon cherry, Cut-leaf ground cherry (English).
Description and variation: *Physalis angulata* is an annual herbaceous plant. The stem which grows up to 1 m tall is sharply angled, hollow, erect, glabrous or with a few short appressed hairs. The leaves are arranged spirally, simple; the leaf blade is ovate to lanceolate, base cuneate, apex obtuse, margin irregularly toothed or entire. The flowers are creamy or tan, axillary, solitary, erect or nodding, bisexual, regular, 5-merous. The fruit is a globose berry, yellow to green yellow, viscid, many-seeded, enclosed in the persistent, inflated bladdery calyx.
Status: Wild.
Habitat: The plant is found in waste places, in fallows, widely as a weed of farm fields and pastures, and coastal sand. The plant grows best in moist, fertile soils and is tolerant of drought and partial shade.
Distribution: The species originated from South America, and has been introduced in the tropics where it is currently widespread as a weed. It is well spread in all three phyto-geographical zones of Benin: Togbin; Niaouli; Dan-Vidjinanvo; Dassa-Zoumè; Savalou; Malanville; Wourarou (Akoègninou *et al.* 2006)
Darwin Initiative 15/003 Project specimen collected from: Wellan (Bassila); Kodowari (Bassila).

Reproductive biology: The species requires full sun exposure. Progagation is by seeds and it is cross-pollinated.
Utilisations In north-western Benin, it is consumed by the Anii socio-linguistic group as a leafy vegetable in Kodowari and Wellan, where it is harvested and used during the rainy season. Despite its abundance in that period, its consumption remains rare or occasional and the plant is not commercialized. It is additionally used in the treatment of fever and it is considered a good vegetable for breast-feeding women. Recent work has demonstrated that *P. angulata* aqueous extract of the whole plant contains genotoxic and cytotoxic agents which inhibit lymphocyte function. This indicates the potential use of physalins as immunosuppressive agents for treatments of pathologies in which inhibition of immune responses is desired.
Threat on genetic resources: It is currently widespread as a weed and it is not under threat of genetic erosion.
Further reading: Soares *et al*. (2006); Damu *et al*. (2007);Mairura (2008); dos Santos *et al*. (2008)

***Solanum aethiopicum* L.**

Local names: Agbitchan, Gbégnanmain, Gbo (Mahi), Osun (Holly), Ikin, Tchidifulè (Tchabè), Agutchan (Fon), Aboutchan (Ifè), Tchidifulè (Tchabè), Iman (Tchabè, Idatcha), Chanmava, Kalbônôxô (Yom), Gbognanmain (Adja, Cotafon, Fon), Kawountowoungla, Yèkodiyè (Ditamari), Kouwoundou (Lokpa), Kpanwounsatou (Waama), Yèbè (Yorouba).
Commons names: Tomate amer, Aubergine indigene, Aubergine écarlate (Français), Mock tomato, Scarlet eggplant, Bitter tomato (English).
Description and variation: *Solanum aethiopicum* is an annual or perennial herb. The flowers are white to more or less clear or pale violet. Two group of *S. aethiopicum* are in use in Benin. One is *S. aethiopicum* L. Groupe Gilo which grows 60(-150) cm tall, generally non-spiny. The fruits are globose or ellipsoid, white, dark green, brown or violet, or striped in two or more colours, smooth to grooved. The second one is *S. aethiopicum* L. Groupe Shum which is not as tall as the first one (up to 60 cm), non-spiny, and its fruit is bright red and globose.
Status: Cultivated.
Agro-ecology: The species is a tropical crop with optimum daytime temperatures of 25-30°C and night temperatures of 20-27°C. It prefers a well-drained soil with pH 5.5-6.8. Rainfall or humidity requirements are different for each group. The Shum Group requires a higher humidity than the Gilo Group. None of these cultivar-groups survive cold or very wet conditions.
Production systems: *Solanum aethiopicum* is one of the main African traditional vegetables. The crop is cultivated in all agro-ecological zones of Benin on a small scale in home gardens or in urban and periurban agriculture. Cultural practices include nursery, transplanting and weeding.
Darwin Initiative 15/003 Project specimen collected from: Ikemon (Ouèssè); Sovlegni (Djidja); Gome (Toffo); Okunfo (Save); Pouya (Natitingou); Kpakpaza (Glazoué); Kargui (Karimama); Tagaye (Natitingou); Tamba (Savalou); Ganro (Bembèrèkè); Zalimey (Zogbodomey); Vossa (Ouèssè); Agbandonou (Allada); Mondji (Savalou); Ileman (Dassa-Zoumè).
Utilisations: This perennial herb is cultivated mainly for its immature fruits. Leaves, flowers and bitter tomato fruits are available year-round. These immature fruits are used by many communities as vegetable, raw or cooked in sauce. Young leaves are also consumed as a

leafy vegetable. There are some varieties especially cultivated for their leaves. Consumption levels of immature fruits or leaves vary depending on the socio-linguistic group, however, frequent use is widespread in communities in the south (Adja, Cotafon, Fon, etc.). The bitter tomato product is widely sold in local markets. The plant is used in traditional medicine and medicinal uses include the healing of colic and hypertension through the roots or fruits. The plant is also used as a sedative.
Threat on genetic resources: Farmers have maintained a wealth of genetic diversity, though further research is needed on the conservation of the existing diversity.
Further reading: Grubben and Denton (2004); Schippers (2004).

***Solanum americanum* Mill.**
Syn.: *Solanum nigrum* auct. Non L.

Local names: Krocotou (Waama), Ewéidou (Holly), Kpéronra, Kpéouka (Bariba), Foïbi (Dendi), Imonruèyè (Ifè), Yèbè (Holly), Adjagboman (Mahi).
Commons names: Morelle noire, Légume vert (Français), Black or glossy nightshade (English).
Description and variation: It is herb which grows 40-60 cm tall or more, with small white flowers. The fruit is a berry 6-9 mm, black and shiny at maturity.
Status: Wild, cultivation urderway. Cultivation is reported amongst the Holly socio-linguistic group.
Habitat: The plant can be found in ruderal areas, in fallows and farm fields.
Distribution: Probably introduced in Africa, nightshade is now widespread in all three phyto-geographical zones of Benin: Doutou-Zoungbonou, Houéyogbé; Niaouli; Tanéka; Kouandé; Sota; Bodjékali (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Akpate (Pobè); Ayetedjou (Kétou); Poto (Banikoara); Wellan (Baassila); Zonmon (Zagnanado); Barikini (Bassila); Ganro Bembèrèkè); Ekpa (Savalou); Tanongou (Tanguiéta); Zougou-Pantrossi (Gogounou); Cotiakou (Tanguieta); Bensekou (Kandi); Mareguinta (Kalale); Pouya (Natitingou); Kargui (Karimama); Moupemou (Natitingou); Assedji (Athiémé); Zalimey (Zogbodomey).
Reproductive biology: It is a monoecious species which propagates by seeds.
Utilisations: The leaves and tender stem of *S. americanum* are boiled and consumed by the Waama, Bariba and Dendi in the north and the Holly in the south. Cooking methods depend on bitterness level. Indeed if the bitterness is very high leaves are boiled two times before eating. To reduce bitterness some communities mix this leafy vegetable with *Amaranthus* species. Consumption levels and period varies depending on the socio-linguistic group. Commercialization is reported only among the Holly. The species has many medicinal uses. Indeed the plant is used to treat abscesses, fever of infants, stomachaches, malaria, wounds, haemorrhoids, mycoses, burns and other physical injuries or lesions. It is used as anthelmintic and antibiotic.
Threat on genetic resources: The species does not appear to be under threat in Benin.
Further reading: Grubben and Denton (2004); Schippers (2004).

***Solanum erianthum* D. Don**
Syn. : *S. verbascifolium* auct. non L.

Local names: Ikan (Idatcha).
Commons names: Amourette marron (Français), Potato tree, Tobacco tree, Tropillo (English).
Description and variation: The potato tree is a shrub which grows 4(-10) m tall; the organs are unarmed, densely woolly hairy with soft stellate hairs. The leaves are alternate, simple; leaf blade elliptical-ovate, base rounded to cuneate, apex acute to acuminate, margin entire or slightly wavy. The inflorescence is a terminal or axillary compound cyme, many-flowered. The flowers are bisexual, regular, 5-merous, white to blue purple. The fruit is a globose berry, short-hairy, dull yellow to orange when ripe, many-seeded.
Status: Wild; domestication underway. Cultivation of this specie is only reported in the Idatcha socio-linguistic group.
Habitat: A weed found in fallows and farm fields, in savannah and cleared or dry forest, waste grounds, roadsides. It prefers a well-drained soil and occurs sometimes as a pioneer species on abandoned lands in its distribution area.
Distribution: Pobè; Niaouli; Odométa; Athiémé; Dassa; Tchatchou; Bassila; Agbassa (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Ileman (Dassa-Zoumè); Kpakpaza (Glazoué).
Reproductive biology: Propagates easily by seeds.
Utilisations: Ilèman and Kpakpaza communities occasionally consume fresh leaves and immature fruits in the rainy season. Commercialization of useful plant parts is also recorded in these localities.
Threat on genetic resources: Because of its weedy habit, it does not appear to be under threat in Benin.
Further reading: Roe (1971); Modise and Mogotsi (2008); Toure *et al*. (2008).

***Solanum macrocarpon* L.**

Local names: Gboman, Gboma (Fon, Idatcha, Mahi, Tchabè, Adja, Anii, Cotafon, Kotokoli, Wémé), Igboman (Ifè), Agbangbawonra, Gbangbnayonla (Yom), Babatou (Waama), Bobola (Boko), Gbodo (Holly), Katakounkpakoun, Kpatakpakô (Tchabè, Yorouba), Nonrouffou (Dendi), Oukangou (Gourmantché), Sanbinou (Bariba), Tikawounfanti (Ditamari).
Commons names: Aubergine, Gboma, Aubergine Africaine, Anghive (Français), African eggplant, Gboma eggplant (English).
Description and variation: A subshrub, slightly woody with robust branches, up to 1.5 m tall, glabrous or sometimes hairy. The flower is 18 mm large, purple greenish or sometimes white. The fruit is a depressed globose berry 2-6 cm x 3-10 cm, green, ivory or purplish white with dark stripes when young, yellow to brownish when ripe. There is a great variability of size and shape of leaves and fruits.
Status: Cultivated.
Agro-ecology: African eggplant requires warm conditions for optimum growth. Most cultivars grow under high annual rainfall. Cultivars with small leaves and fruits withstand drought and are usually grown in dry areas of the north of the country.
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Agnavo (Dogbo); Akarade (Bassila); Akpate (Pobè); Assedji (Athiémé); Ayetedjou (Kétou); Banigri (Tchaourou); Barikini (Bassila); Batia (Tanguiéta); Bensekou (Kandi); Bognongon (Zogbodomey); Dabou (Parakou); Ekpa (Savalou); Ganro (Bembèrèkè); Gbeko

(Dangbo); Gogbo (Adjohoun); Gome (Toffo); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Kodowari (Bassila); Kpakpaza (Glazoué); Kpassa (Tchaourou); Mareguinta (Kalale); Mondji (Savalou); Moupemou (Natitingou); Okunfo (Save); Penelan (Bassila); Poto (Banikoara); Sohounme (Houéyogbé); Soubado (Pèrèrè); Sovlegni (Djidja); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Tchimberi (Bassila); Vossa (Ouèssè); Zalimey (Zogbodomey); Zonmon (Zagnanado); Zougou-Pantrossi (Gogounou).

Production systems: African eggplant is one of the major leafy vegetable cultivated in Benin. In the coastal region, African eggplant production takes place in urban and periurban agriculture. It is grown in commercial, intensive systems to meet the high demand of urban populations. Urban producers normally practise monocropping, but in rotation with other vegetables particularly *Amaranthus* species. In the north, it is mainly a produced near the house or as a subsistence farm crop. In this case, landraces are cultivated in home gardens or intercropped with other food crops on farm.

Utilisations: It is the most common and widely cultivated of *Solanum* species. The most common variety in Benin has small fruits. It is cultivated and commercialized in all agro-ecological zones of Benin and among all socio-linguistic groups. Leaves are very appreciated by communities and boiled and consumed in sauce or cooked with *egusi* (cucurbits). The Darwin survey results showed that *S. macrocarpon* was amongst the top five frequently used vegetables in all three phyto-geographical zones of Benin, but it is particularly popular in the Guinean villages, where it is used throughout the year. In this zone, it has been integrated in urban and periurban production system. Leaf composition is comparable with those of other green leafy vegetables. It has many medicinal properties and is used to facilitate digestion and as an anti anaemic. A decoction of the leaves and roots treats abscesses and ear infections.

Threat on genetic resources: The local cultivars of African eggplant are not under threat of genetic erosion.

Further reading: Grubben and Denton (2004); Schippers (2004).

***Solanum scabrum* Mill.**

Syn. *Solanum nigrum* L. var. *guineense* L.

Local names: Adjagboman (Mahi), Agbôè, Lanman (Cotafon), Ewédou (Yorouba, Holly), Yèbè (Holly), Féyibi (Dendi), Gbôè, Lanman (Adja), Gbogodo (Tchabè), Gboman alawiniwini, Hèdougbognin, Kpakossu, Sègbégnamain (Mahi), Gotantala, Goutantaro (Anii), Imonruèyè (Ifè), Kouliabougou (Gourmantché), Kpainsiola (Boko), Tikotaduôti, M'bôôtakam (Ditamari).

Common names: Morelle de Guinée, Morelle noire (Français), Black nightshade, Huckleberry (English).

Description and variation: Annual herb or short lived perennial herb. *S. scabrum* is erect up to 50-100 cm tall or more. The stem is glabrous or sparsely pubescent. The leaves are rhomboid to ovate-lanceolate, spirally arranged, sometimes almost opposite, simple. The inflorescence is an extra-axillary, umbel-like cyme, many-flowered. The bisexual flowers are white or slightly violet. The fruit is a globose berry 10-16 mm in diameter, black violet and shiny.

Status: Cultivated.

Agro-ecology: *Solanum scabrum* is cultivated on a wide range of soil types but prefers fertile ones with high nitrogen content and rich in organic matter. The rainfall requirement is 500 mm. The optimum temperature for growth is 20-30°C and for seed germination 15-30°C.
Darwin Initiative 15/003 Project specimen collected from: Agnavo (Dogbo); Banigri (Tchaourou); Dabou (Parakou); Kpassa (Tchaourou); Pouya (Natitingou).
Production areas and systems: Black nightshade is a reasonably important leafy vegetable in Benin. Cultivation occurs in all agro-ecological zones and among nearly all socio-linguistic groups mainly in home garden and subsistence agriculture. However, it can be collected sometimes from farmlands and young fallows where escapes grow spontaneously.
Utilisations: The species is widely cultivated and consumed in Benin. Consumptions levels of its leaves, which are available in the rainy season, varies depending on the socio-linguistic groups. Commercialization of the leaves is reported. The species is also used as a medicinal plant and employed in the treatment of abscesses and as an anthelmintic as well.
Threat on genetic resources: There is no threat of genetic erosion on local cultivars of black nightshade.
Further reading: Grubben and Denton (2004); Schippers (2004).

Sterculiaceae

***Cola millenii* K. Schum.**
Syn.: *Cola togoensis* Engl.&Krause

Local names: Aziokèkè (Aïzo).
Common names: Kola du singe (Français).
Description and variation: *Cola millenii* is a tree species up to 18 m tall. The leaf blade is lobed, and the flowers shortly pedicellate, sepals greenish from outside, red grey or purple inside.
Status: Wild.
Habitat: Trees are found in semi-deciduous tropical forest and swamp forest in the Guinean and Sudano-Guinean phyto-geographical zones in Benin.
Distribution: Dangbo; Ifangni; Badjamè; Pobè; Aplahoué (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Gomé (Toffo).
Reproductive biology: The species propagates by seeds, but branch cuttings can be used.
Utilisations: Rare consumption of tender leaves of this tree is reported only among the Aïzo socio-linguistic group in the south, where they are collected from wild plants. The plant is said to have some medicinal uses and is used against icterus and many skin diseases. The fruit mesocarp has high ascorbic acid, iron, manganese and zinc contents.
Threat on genetic resources: Not evaluated.
Further reading: Ganglo and de Foucault (2006); Bello *et al*. (2008)

***Melochia corchorifolia* L.**

Local names: Alouloui (Ouémé), Gbovo (Aîzo).
Common names: Herbe à balai (French), Chocolate weed, Redweed, Wire bush (English).
Description and variation: An annual herb, erect or sometime prostrate, with a hollow stem, up to 60 – 100 cm tall. The flowers are small, white or sometime yellowish.

Status: Wild.
Habitat: This herb occurs in humid stations.
Distribution: Adjohoun, Ahogbaya, Covè, Nanimbor, Ségbana, Guéné (Akoègninou *et al*, 2006)
Darwin Initiative 15/003 Project specimen collected from: Gbéko (Dangbo); Gogbo (Dangbo).
Reproductive biology: *Melochia corchorifolia* propagates by seeds.
Utilisations: Leave are used like those of *Corchorus olitorius* to make a glutinous sauce. Use of *M. corchorifolia* is reported among Aïzo and Ouémé socio-linguistic groups in the Ouémé Valley. The Ouémé socio-linguistic community of Gogbo consume it occasionally in the dry season, whereas the Aïzo in Gbéko consume it all year-round. The leaves are sometimes sold in local markets.
Threat on genetic resources: Because of its wide distribution, *M. corchorifolia* is not under threat of genetic erosion.
Further reading: Grubben and Denton (2004).

Sterculia tragacantha Lindl.

Local names: Dagba, Gbokpodjè (Mahi), Gadjèkpo, Guétchibo, Gouukalow (Anii), Hongbede (Fon, Aïzo, Cotafon), Loluide, Adédjonman (Adja), Kadarabobo (Kotocoli), Akaman kodjèkpo (Ifè, Idatcha), Akèman (Idatcha).
Common names: Sobou, Tragacanthe Africain (Français).
Description and variation: A small tree 10-15 m tall in savannah but can reach 25 m in forest habitats; the leaves are tormentose underneath, ovate-elliptic to slightly obovate, rounded or nearly cordate at base, obtuse and shortly acuminate at apex. The flowers are articulated at the extremities of the peducles; carpels are visible on tormentose fruit.
Status: Wild.
Habitat: Woody savannah, forest, fallows, secondary forest, thickets. It occurs also on ferrallitic hydromorphic soils along waterways in the Guinean zone in Benin.
Distribution: Owodé; Cocotomey; Bembè; Houéyogbé; Ita-Djebou (Akègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Agbandonou (Allada); Agnavo (Dogbo); Akarade (Bassila); Assedji (Athiémé); Barikini (Bassila); Bognongon (Zogbodomey); Ekpa (Savalou); Ileman (Dassa-Zoumè); Kodowari (Bassila); Kpakpaza (Glazoué); Mondji (Savalou); Okunfo (Save); Penelan (Bassila); Tamba (Savalou); Vossa (Ouèssè).
Reproductive biology: The species propogates by seed.
Utilisations: Fresh and young leaves are used by many communities in central and southern Benin. Consumption frequency of the leaves, which are collected from the wild in the rainy season, varies depending on the socio-linguistic group.
Threat on genetic resources: Not evaluated.

Triplochiton scleroxylon K. Schum.

Local names: Atiouvié, Atiwe (Catafon), Gbii (Boko), Xwetin (Fon).
Common names: Samba (Français), African whitewood, African maple (English).
Description and variation: *Triplochiton scleroxylon* is a large tree species of tropical semi-deciduous forest which can reach 50 m in height, and has large buttresses; the bole is straight

150(–210) cm in diameter, often angular and strongly ridged, branchless up to 30 m. The leaves are alternate, simple, blade palmately 5–7-lobed. The inflorescence is an axillary or terminal panicle up to 10 cm long, densely hairy, greyish and smelly. The fruit consists of 1–5 rhombic laterally winged nuts.
Status: Wild or planted.
Habitat: Deciduous and semi-deciduous forests, but it can sometimes be found in clearings in dense evergreen forest and in dry forest. *T. scleroxylon* prefers more fertile, well-drained, ferruginous soils with light or medium texture and acid to neutral pH. In Benin it occurs as well on ferralitic soils. It is most abundant at 200–400 m altitude and in areas with an annual rainfall of 1100–1800 mm and 2 rainy seasons, but occurs also up to 900 m altitude in regions with an annual rainfall of up to 3000 mm.
Distribution: Guinean zone in Benin: Dangbo; Pobè; Kpédjilé Agada; Glo; Pahouian; Sakété (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémé); Bensekou (Kandi).
Reproductive biology: The species propagates by seeds and germination rate and speed increase when the seeds are pre-treated by moistening between layers of damp cotton wool. However, 1–3 year old bare uprooted seedling, and stem cuttings are used and successful. Marcotting is also possible.
Utilisations: In south Benin, *T. scleroxylon* it is a sacred tree. Nevertheless, Cotafon communities report rare or occasional consumption of its leaves in the dry season, as do Boko communities in the north-east of the country. Leaves are harvested on pioneer saplings in clearings and fallows, but in the Cotofon community also sometimes from planted.
Threat on genetic resources: It is also grown in plantations and does not appear at risk of genetic erosion in Benin.
Further reading: Leakey and Coutts (1989); Leakey and Storeton-West (1992); Bosu and Krampah (2005).

Thymelaeaceae

Synaptolepis retusa H.H.W.Pearson

Local names: Igbam, M'ba (Kotokoli).
Description and variation: A sub-shrub, stump lignified, erect up to 0.45 m tall. The flowers are greenish bearing gold-yellow anthers.
Status: Wild.
Habitat: The species occurs on rocky soils in woody savannah and hill sides.
Distribution: Ina; Assotè; Mts Atacora; Perma; Tora; Koussoukoingou; Guinagourou; Ndali (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Akarade (Bassila); Tchimberi (Bassila).
Reproductive biology: Propagatation is by seeds.
Utilisations: Leaves are frequently collected in the wild by Kotokoli communities in the north-west of Benin in the dry season. The edible parts of the plant are sold in local markets. Some medicinal uses have been reported, for example in the treatment of dysentery and also as a laxative.

Threat on genetic resources: Not evaluated.

Tiliaceae

***Corchorus aestuans* L.**
Syn.: *Corchorus acutangulus* Lam.

Local names: Eyogbè (Ifè), Agonlinninnu (Fon), Anuwin (Bariba).
Common name: West African mallow (English).
Description and variation: An annual or perennial herb up to 1 m tall, heavily ramified, erect or prostrate. The stem is red-brown, slightly yellowish puberulent. The leaf blade is ovate or broadly ovate or ovate-lanceolate, sparsely pilose on both surfaces, glabrescent, basal veins 5-7, apex shortly acuminate or acute. The flowers are solitary or grouped together in cymes, axillary or leaf-opposed, gold-yellow; the capsules are cylindrical, angled , 3-5-valved with wings and slightly robust.
Status: Wild.
Habitat: *Corchorus aestuens* grows in ruderal grounds. It is found in fallows, savannahs and degraded forests.
Distribution: Porto-Novo; Ahamè; Pahou; Abomey-Calavi; Ségbana (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Banigri (Tchaourou); Kpassa (Tchaourou); Sovlègni (Djidja); Ekpa (Savalou).
Reproductive biology: Propagation is by seeds.
Utilisations: Among the Bariba in the north, *C. aestuans* is collected from the wild and consumed as a leafy vegetable. Watchi and Saxwè groups in the south cultivate it in rainy season for consumption. However, commercialization of this indigenous vegetable is not reported. Consumption levels vary depending on the socio-lingustic groups and localities.
Threat on genetic resources: Because of its weedy behaviour, *C. aestuans* does not appear to be under threat of genetic erosion.
Further reading: Nezerková-Hejcmanová *et al*. (2005); Gueye and Diouf (2007).

***Corchorus olitorius* L.**

Local names: Ninnouwi (Fon), Ayoyo (Ifè), Ooyo (Tchabè), Yoyo (Idatcha), Nénouwi (Mahi), Adémain (Cotafon), Aluilui (Wémè), Ayoyo, Yoyo (Anii, Dendi, Ifè, Idatcha, Kotocoli, Lokpa), Démi (Adja), Èyo (Holly), Minapouwopouwona (Gourmantché), Ninnouwi (Fon, Mahi), Oyo (Tchabè), Yoyora, Sékéfèèma (Waama), Tifanhanti (Ditamari), Yôyôkoun (Bariba), Yôyôgoula (Boko).
Common names: Corette potagère, Mauve du juif, Jute à longs fruits, Jute potager (Français), Nalta jute, Tussa jute, Jew's mallow, Jute mallow, Krinkrin, Bush okra, West African sorrel (English).
Description and variation: Annual herb, more or less glabrous, often lignified at the base and strongly branched, 2 stipules at the leaf base. The leaves are alternate, simple; the blade narrowly ovate, ovate or elliptical, cuneate or obtuse and with setaceous appendages up to 2.5 cm long at base, acuminate to acute at apex, margin serrate or crenate, almost glabrous, usually shiny dark green, 3–7-veined from the base. The inflorescence is a 1–4-flowered axillary fasciclate cyme, bracteate. The flowers are bisexual, regular, yellow; the fruit a rigid

cylindrical, ribbed capsule with a short entire beak, usually dehiscing by 5 valves, many-seeded.
Status: Cultivated or wild.
Agro-ecology: This annual herb is cultivated by farmers in all agro-ecological zones, however, *C. olitorius* wild types are found in grasslands, fallows and farm fields usually close to humid stations, streams and swamps: Porto-Novo; Igana; Kouffo; Maréguita; Kalalé; Nalohou; Djougou (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Agnavo (Dogbo); Akarade (Bassila); Akpate (Pobè); Assedji (Athiémé); Ayetedjou (Kétou); Banigri (Tchaourou); Barikini (Bassila); Batia (Tanguiéta); Bensekou (Kandi); Bognongon (Zogbodomey); Cotiakou (Tanguieta); Dabou (Parakou); Ekpa (Savalou); Ganro (Bembèrèkè); Gbeko (Dangbo); Gogbo (Adjohoun); Gome (Toffo); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Kargui (Karimama); Kodowari (Bassila); Kpakpaza (Glazoué); Kpassa (Tchaourou); Mareguinta (Kalale); Mondji (Savalou); Moupemou (Natitingou); Okunfo (Save); Penelan (Bassila); Pouya (Natitingou); Sohounme (Houéyogbé); Soubado (Pèrèrè); Sovlegni (Djidja); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Tchimberi (Bassila); Torozogou (Malanville); Vossa (Ouèssè); Wellan (Bassila); Zonmon (Zagnanado).
Production systems: The plant has been integrated in urban and periurban agricutural systems and thus is produced even in the dry season. Scarification of seeds stimulates germination and the best rates (up to 93%) can be obtained at soil depths of 0 to 2 cm. Germination decreases as depth increases.
Utilisations: Tussa jute is an important mucilagenous leafy vegetable in Benin. Leaves are boiled into a glutinous sauce. It is widely and frequently used by group throughout the country, during the rainy season or even year-round. *C. olitorius* is commercialized in local and regional markets. It generates good income for farmers. Medicinally, it is used to treat ulcers and chest pains**.** It is also used as a vermifuge and considered traditionally to be rich in vitamins.
Threat on genetic resources: Not threatened.
Further reading: Grubben and Denton (2004); Chauhan and Johnson (2008).

***Corchorus tridens* L.**

Local names: Azataluga, Glénonmandovodu (Fon), Itcho (Ifè), Djogodo (Idatcha), Alanlin (Mahi), Untcho, Itcho (Ifè), Éiyo (Holly), Èyo Aguidan (Holly), Bawounna Guimanhannain (Anii), Djaga (Tchabè), Fakou (Dendi), Fêêman (Waama), Gnainriké, Nonmonnon (Bariba), Ifanhanyéi (Ditamari), Lonlouin (Adja), Tignanlifaré (Gourmantché), Viwonla (Boko).
Common names: Corète à trois dents (Français), Jew's mallow, Fodder jute, Wild jute (English).
Description and variation: *Corchorus tridens* is an herbaceous plant up to 1 m tall, usually erect and brached. The stem is reddish, the leaves alternate, simple; the leaf blade narrowly ovate to lanceolate or narrowly elliptical, rounded and with setaceous appendages up to 1 cm long at base, rounded, acuminate or acute at apex, margin serrate or crenate, sparsely pubescent, usually non-shiny and pale green, 3(–5)-veined from the base. The inflorescence is a 1–4-flowered leaf-opposed fasciculate cyme, bracteate; the flowers are bisexual, regular. The fruit is a slender cylindrical capsule up to 4 cm long and up to 2 mm wide, slightly ribbed, with 3 small spreading horns at the apex, dehiscing by 3 valves, many-seeded.
Status: Cultivated or occurring wild and spared in farms.

Distribution: Togbin; Ouidah; Guéné; Samiondji; Niaouili; Tchaourouu (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Afomayi (Lalo); Agnavo (Dogbo); Batia (Tanguiéta); Bognongon (Zogbodomey); Ekpa (Savalou); Garou-Tedji (Malanville); Gome (Toffo); Ileman (Dassa-Zoumè); Kargui (Karimama); Kodowari (Bassila); Kpakpaza (Glazoué); Kpassa (Tchaourou); Loumbou-Loumbou (Karimama); Mondji (Savalou); Moupemou (Natitingou); Poto (Banikoara); Pouya (Natitingou); Sohounme (Houéyogbé); Sovlegni (Djidja); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Torozogou (Malanville); Vossa (Ouèssè); Wellan (Bassila); Zalimey (Zogbodomey); Zonmon (Zagnanado).
Production systems: It is widely cultivated like *C. olitorius*. Treatment with concentrated sulphuric acid can break seed dormancy of *C. tridens* and promote germination, however, treatments that surpass 10 minutes significantly decreased germination capacity.
Utilisations: The species is used similarly to *C. olitorius* but is less appreciated and not sold in some communities.
Threat on genetic resources: It is not under threat of genetic erosion.
Further reading: Emongor *et al*. (2004); Grubben and Denton (2004).

***Grewia mollis* Juss.**
Syn.: *Grewia pubescens* P.Beauv.; *Grewia venusta* Fresen.

Local names: Orè (Ifè, Idatcha), Lili (Fon, Mahi), Sola (Ifè), Lili (Fon, Mahi), Gourounmo, Guérihounbié (Anii), Liyouani (Gourmantché), Moussannoum (Otamari).
Description and variation: A shrub or a small tree up to 6 m tall, strongly branched. The young branches are densely stellate-pubescent, turning dark grey to purple with age. The leaves are alternate, simple; the blade is elliptical to elliptical-oblong, base cuneate or broadly rounded or obliquely truncate, apex acute to slightly acuminate. The inflorescence is a cyme, 1–many together in a leaf axil, 1–3-flowered, and flowers are bisexual, regular. The fruit is a globose drupe, finely whitish hairy, yellow turning black; the endocarp is hard, woody, rugose.
Status: Wild.
Habitat: *Grewia mollis* is found in forest egdes and clearings, open woodland, riverine thickets, savannah and fallow. It grows on a range of soil types and is highly resistant to fire; often gregarious, with branch-suckering leading to the formation of thickets.
Distribution: Ouomè; Cocotomey; Calavi; Pobè; Zogbodomey; Pénélan; Goro; Pédarou; Adjrala (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Akarade (Bassila); Barikini (Bassila); Batia (Tanguiéta); Ekpa (Savalou); Ileman (Dassa-Zoumè); Kpakpaza (Glazoué); Mondji (Savalou); Moupemou (Natitingou); Sovlegni (Djidja); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Tchimberi (Bassila); Wellan (Bassila).
Reproduction biology: The species propagates by seeds. Germination often occurs after a bush fire followed by rains.
Utilisations: Leaves and flowers are used by the Ifè, Mahi, Fon, Idatcha in the central region and Otamari, Gourmantché and Anii in the north. Amongst these northern groups consumption is more frequent. As in the case of *Corchorus* sp. Is it used to make mucilaginous sauces. Available in the rainy season, fresh edible organs are sold in local markets. Leaves can be dried and conserved for the dry season when scarce. It plays also an

important role in the regeneration of lands under short fallow periods. A recent study showed that the mucilage obtained from *G. mollis* (GMM) can be used as a binder in paracetamol tablet formulation with good physical properties.
Threat on genetic resources: Because of its wide distribution, it is not under threat of genetic erosion.
Further reading: Kanmegne *et al.* (2000); Brink (2007); Emeje *et al*. (2008).

Urticaceae

Laportea aestuans (L.) Chew
Syn.: *Urtica aestuans* L.; *Fleurya aestuans* (L.) Miq.

Local names: Kpannankpon (Adja), Kpofobo (Anii), Tikpaakpaati (Otamari), Tikpanankpananti (Ditamari), Dogbo, Dokpo (Cotafon).
Common Names: West Indies wood-nettle (English).
Description and variation: Annual herb, sparsely to densely pubescent with stinging hairs and stipitate-glandular, nonstinging hairs. The leaf blades are broadly ovate to nearly orbiculate, base rounded or abruptly attenuate, auriculate, margins regularly serrate or dentate, apex short-acuminate. The inflorescences have both staminate and pistillate flowers in the same panicle, or proximal panicles with staminate flowers. The fruit is a strongly compressed achene, more or less orbicular.
Status: Wild.
Habitat: Ruderal stations, waste places, cultivated lands, open forest, fallows; possibly introduced.
Distribution: Hoengbo Nagot; Ikpéguilé-Agada; Ouando; Dogbo; Kétou to Ewé; Dassa-Zoumè (Akoègninou *et al.* 2006).
Darwin Initiative 15/003 Project specimen collected from: Assedji (Athiémé); Agnavo (Dogbo); Afomayi (Lalo); Tagaye (Natitingou); Wellan (Bassila).
Reproductive biology: The species propagates by seeds.
Utilisations: The plant is used as a leafy vegetable but generally it is not very appreciated. Leaves are harvested from the wild only in the rainy season. Consumption varies depending on socio-linguistic groups and leaves are only commercialized in two villages in Cotafon and Adja communities in southern Benin. In the Anii community of Wellan, leaves are consumed by pregnant women and said to contribute to the growth of the foetus.
Threat on genetic resources: In view of its weed habit, *L. aestuans* is not threatened of genetic erosion.

Verbenaceae

***Lippia multiflora* Moldenke**
Syn.: *Lippia adoensis* **Baker**

Local names: Tchagara (Ifè), Kinwunkinwu (Tchabè), Kanwu (Idatcha), Aklala (Mahi), Yinya (Fon), Guitchaabo, Goroumè, Soko (Anii).

Description and variation: Perennial herb with aromatic leaves. It can grow up to 4 m tall. The stems are pubescent, rough or subglandular.
Status: Wild; domestication underway.
Habitat: The plant thrives in grasslands and woody savannas. It can also be found in fallows and thickets.
Distribution: Monsourou; Atchérigbé; Godomey (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project Specimen collected from: Banigri (Tchaourou); Barikini (Bassila); Ekpa (Savalou); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Kodowari (Bassila); Kpakpaza (Glazoué); Mondji (Savalou); Penelan (Bassila); Sovlegni (Djidja); Tamba (Savalou); Vossa (Ouèssè); Wellan (Bassila).
Reproductive biology: Propagation is by seeds or cuttings.
Utilisation: *Lippia multiflora* is an aromatic plant whose leaves are traditionally used for tea. However, leaves and inflorescences with immature fruits are used as a vegetable mostly in central Benin. Consumption occurs mainly in the rainy season and varies depending on the community. Commerciliazation of edible plant parts is reported in some communities of western Benin. Additionally, the plant is used to treat malaria, stomachache, fever, nausea. It is also used as vermifuge, laxactive and antibiotic. Aqueous extract of an association of *A. conyzoides*, *Cymbopogon citratus* and *L. multiflora* produces an analgesic activity.
Threat on genetic resources: Not evaluated.
Further reading: Abena *et al*. (2003); Bassole *et al.* (2003); Okemy-Andissa *et al*. (2006).

***Stachytarpheta indica* (L.) Vahl**
Syn.: *Verbena indica* L.

Local names: Gninmondu (Fon, Mahi, Wémè), Dagbalogné, Ogafa (Holly), Ganxwa (Cotafon), Oruhandètcho (Idatcha), Ogafa (Holly), Gahuaman (Mahi), Yaranduya (Waama).
Description and variation: The plant is a much ramified herb which can grow up to 1 m tall. The leaves are lanceolate, oblong with denticulate margins. The inflorescence is long and can grow up to 40 cm. The flowers are blue with a white centre.
Status: Wild.
Habitat: The species is found in ruderal areas, farm fields and forest zones with high annual rainfall.
Distribution: Agbodjedo; Adjohoun; Adjarala; Aplahoué; Dannou; Azowlissè; Samiondji; Karimama (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project Specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Agnavo (Dogbo); Assedji (Athiémé); Ayetedjou (Kétou); Bognongon (Zogbodomey); Dabou (Parakou); Gbeko (Dangbo); Gogbo (Adjohoun); Gome (Toffo); Ileman (Dassa-Zoumè); Kpakpaza (Glazoué); Pouya (Natitingou); Sohounme (Houéyogbé); Sovlegni (Djidja); Tchimberi (Bassila); Zalimey (Zogbodomey); Zonmon (Zagnanado).
Reproductive biology: The plant propagates by seeds.
Utilisation: This leafy vegetable is frequently consumed in Fon, Aizo and Waama socio-linguistic groups. In the Cotafon community, *S. indica* is credited with laxative properties.
Threat on genetic resources: Not evaluated.

***Vitex doniana* Sweet**
Syn.: *Vitex cuneata* Thonn.; *Vitex cienkowskii* Kotschy & Peyr.; *Vitex pachyphylla* Baker

Local names: Fonkounman, Fonman, Fontin (Adja/Aizo, Cotafon, Fon, Oueme, Mahi), Tchimarou, Tchigbaro (Kotokoli), Akon, Ori, Okoun (Holly), Kunonku, Konnoukou, Gnankounougou, Yaro, Gnanrou (Bariba), Gusudonon, Goutéssi, Gutesere (Anii), Kousanla, Kula (Boko), Yinrikuntu (Waama), Djagumanlakpa (Ifè), Aku, Akumanlakpa, Léwèman (Tchabè, Idatcha), Mumantonmu, Timantonti (Otammari), Bugnanbu (Gourmantché), Bokoïkossou (Dendi).
Commons names: Prune des savanes, Prunier noir, Koro (Français), Black plum, West African plum (English).
Description and variation: The plant is a deciduous small to medium-size tree which grows up to 10-12 m tall in Benin. The bark surface is greyish white to pale greyish brown, fissured and scaly. The young branches are shortly hairy or glabrescent. The coriacious leaves are opposite, digitately compound with up to 7 leaflets, obovate to elliptical notched to rounded or shortly acuminate at apex, entire, leathery, nearly glabrous. The inflorescence is an axillary cyme up to 10 cm long and 16 cm wide, orange-brown hairy. The fruit is an obovoid to oblong-ellipsoid drupe 2–3 cm long, purplish black, fleshy, with woody, 4-celled stone, up to 4-seeded. The seeds are without endosperm and are covered with a cupule and black sweet at maturity.
Status: Wild.
Habitat: It is a savannah tree which grows as well in riparian vegetation and most commonly found on alluvial soils, but can be found on ferruginous and ferrallitic ones. It occurs in regions with a mean annual rainfall of 750–2000 mm.
Distribution: *Vitex doniana* is found in all ecological regions of Benin: Porto Novo; Libantè; Atchanou; Aplahoué; Gamia (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project Specimen collected from: Afomayi (Lalo); Agbandonou (Allada); Agnavo (Dogbo); Akarade (Bassila); Akpate (Pobè); Assedji (Athiémé); Ayetedjou (Kétou); Banigri (Tchaourou); Barikini (Bassila); Bensekou (Kandi); Bognongon (Zogbodomey); Cotiakou (Tanguieta); Dabou (Parakou); Ekpa (Savalou); Ganro (Bembèrèkè); Gbeko (Dangbo); Gogbo (Adjohoun); Gome (Toffo); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Keremou (Banikoara); Kodowari (Bassila); Kpakpaza (Glazoué); Kpassa (Tchaourou); Mareguinta (Kalale); Mondji (Savalou); Moupemou (Natitingou); Penelan (Bassila); Poto (Banikoara); Sohounme (Houéyogbé); Soubado (Pèrèrè); Sovlegni (Djidja); Tagaye (Natitingou); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Tchimberi (Bassila); Torozogou (Malanville); Vossa (Ouèssè); Wellan (Bassila); Zalimey (Zogbodomey); Zonmon (Zagnanado); Zougou-Pantrossi (Gogounou).
Reproductive biology: The plant naturally propagates by seeds and root suckers. Seed germination within the framework of the Darwin Initiative project resulted in low percentages. Seeds need a very long time to germinate (Yarou 2007). Germination is most successful with fresh seeds (Ky 2008). Forest fires may help break the seed coat before germination (Arbonnier 2002). Yarou (2007) investigated dormancy in *V.doniana* and concluded that physical damage on seeds gave the best results which were at 20% germination rate.
Utilisation: Black plum is one of the major leafy vegetables in Benin and other countries in West Africa. The tree is only found wild and no domestication practice has been reported in the country. Because of its economic importance there is a high pressure on the plant. Its leaves are pre-cooked and sold in almost all markets as a source of income for many households. This species is consumed by nearly all socio-linguistic groups. The black fruit is edible. The species is also used in pharmacopeia against diseases such as mouth candidose,

fever, ear infection, stomachache, diarrhoea and dysentery. It is used as an antibiotic to heal wounds and eliminate blood clots in the body.
Threat on genetic resources: *Vitex doniana* wild populations are being continuously eroded.
Further reading: Arbonnier (2002); Yarou (2007); Ky (2008).

Violaceae

***Hybanthus enneaspermus* (L.) F.Muell.**
Syn.: *Viola enneasperma* L.; *Ionidium enneaspermum* Vent.; *Ionidium dahomensis* Chev. & var. *maritimum* Chev.

Local names: Gogokou, Gogohoun (Bariba).
Description and variation: A perennial herb, up to 0.30 m tall. The leaves are spirally arranged, blade linear to ovate, margine entire or sud-entire; the flowers are solitary, blueish, petal inferior suborbicular to subcordate, 8-19 mm long.
Status: Wild.
Habitat: the plant occurs in degraded lands, fallows, savannah.
Distribution: Cotonou; Agbodjedu; Adjarala; Abira; Dassa; Ouari-Maro; Parakou; Pèrèrè (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Ganro (Bembèrèkè);
Soubado (Pèrèrè).
Reproductive biology: The species propagates by seeds.
Utilisations: *Hybanthus enneaspermus* has been recorded as leafy vegetable only in Bariba communities in north Benin where it is occasionally consumed in the rainy season.
Threat on genetic resources: Not evaluated.

Vitaceae

***Cissus palmatifida* (Baker) Planch.**
Syn: *Vitis palmatifida* Baker; *Cissus triangularis* A.Chev.

Local names: Titankunti (Otamari), Tabarabu (Wama).
Description and variation: A creeping or climbing herb with sub-erect stem at the beginning. Flowers are yellow, and the fruit is a sub-globose berry up to 4-5 mm large, dark and with one seed at maturity.
Status: Wild.
Habitat: The plant occurs in fallow fields, woody savannah, in dry forests and riparian forests.
Distribution: Pendjari National Park; Savalou; Nalohou; Tchakalakou; Sokka, Djagbalo (Akoègninou *et al,* 2006).
Darwin Initiative 15/003 Project specimen collected from: Cotiakou (Tanguiéta); Moupèmou (Natitingou).
Reproductive biology: Propagation is by seeds, but regrowth from stumps is observed as well.
Utilisations: Leaves of *Cissus palmatifida* are used to make sauces. Consumption is observed in Otamari and Waama socio-linguistic groups in the rainy season. Consumption levels is

rare in Moupèmou (Otamari) but frequent in Cotiakou (Wama). Commercialization of the plant is reported in Cotiakou.
Threat on genetic resources: *Cissus palmatifida* is widely distributed in Benin and is not under threat of genetic erosion. Genetic resources collections have not yet been undertaken for this plant species.
Further reading: Grubben and Denton (2004).

***Cissus populnea* Guill. & Perr.**

Local names: Saanru, Sanro, Sararu, Gnonsanou (Bariba), Gbogolo (Anii), Lidjangnaliyuani (Gourmantché), Zanla, Zaa (Boko), Tchokugbolo, Kpolakpola (Ifè), Orlo, Djawawa (Tchabè, Idatcha), Assan, Asan (Mahi, Fon), Diyua'ndi (Otammari).
Description and variation: A liana with lignified stem, pale, producing potable water when cut. The flower is cream and the fruit blackish-purple at maturity.
Status: Wild.
Habitat: *Cissus populnea* occurs in dry dense forests, woodlands, savannahs and fallows.
Distribution: Komté; Ouaké; Lanta; Attakè; Savalou; Sakabansi; Campus d'Abomey-Calavi; Pendjari (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Banigri (Tchaourou); Barikini (Bassila); Batia (Tanguiéta); Bensekou (Kandi); Ekpa (Savalou); Ikemon (Ouèssè); Ileman (Dassa-Zoumè); Keremou (Banikoara); Kpakpaza (Glazoué); Kpassa (Tchaourou); Mareguinta (Kalale); Mondji (Savalou); Moupemou (Natitingou); Okunfo (Save); Sovlegni (Djidja); Tamba (Savalou); Tankougou (Kandi); Tanongou (Tanguiéta); Vossa (Ouèssè); Wellan (Bassila).
Reproductive biology: Propagation is by seeds, but regrowth from stumps is observed as well.
Utilisations: *Cissus populnea* is a known in central and northern Benin as a famine vegetable, replacing on certain occasions *Corchorus, Ceratotheca* and *Sesamum* species in the dry season. Its consumption is really rare. Tender leaves and the liana are used to make mucilaginous sauces. The liana is pealed and the stick is used just to stir the sauce when it is already boiling. Medicinal uses have been reported, to treat diarrhoea, headache and whitlow. It is used as well as ab aphrodisiac.
Threat on genetic resources: Not evaluated.

***Cyphostemma adenocaule* (Steud.) Desc.**
Syn. *Cissus adenocaulis* Steud. Ex A.Rich.

Local names: Tiyayaakoonti (Otammari), Gobia, Sinsambou (Bariba), Gakolugawandja, Wountchiinlaounkolé (Anii), Tankoruminsuku (Waama).
Description and variation: *A* climbing or trailing perennial herb with a slender stem up to 7.5 m long. Plant puberulous or nearly glabrous. The stem bears leaf-opposed branched tendrils and leaves are alternate, leaves digitately coumpound with 3–9-foliolate; terminal leaflet ovate or elliptical, up to 7.5 cm × 4.5 cm broad. The inflorescences and flowers are reddish; the fruits are glabrous purplish or black..
Status: Wild.
Habitat: The species occurs in dry forests and savannah woodlands.

Distribution: Pendjari; Lama; Pobè; Kétou; Sinendé ; Koudokou Boukoumbé (Akoègninou *et al*. 2006).
Darwin Initiative 15/003 Project specimen collected from: Barikini (Bassila); Cotiakou (Tanguieta); Keremou (Banikoara); Penelan (Bassila); Tagaye (Natitingou); Tanongou (Tanguiéta); Zougou-Pantrossi (Gogounou).
Reproductive biology: The plant propagates by seeds.
Utilisations: The species is consumed as leafy vegetable in many communities in northern Benin. It is also used to treat wounds, malaria and help children tooth development. It is used as a galactogenic and against venom.
Threat on genetic resources: The species is not at risk of genetic erosion at the present time.
Further reading: Grubben and Denton (2004).

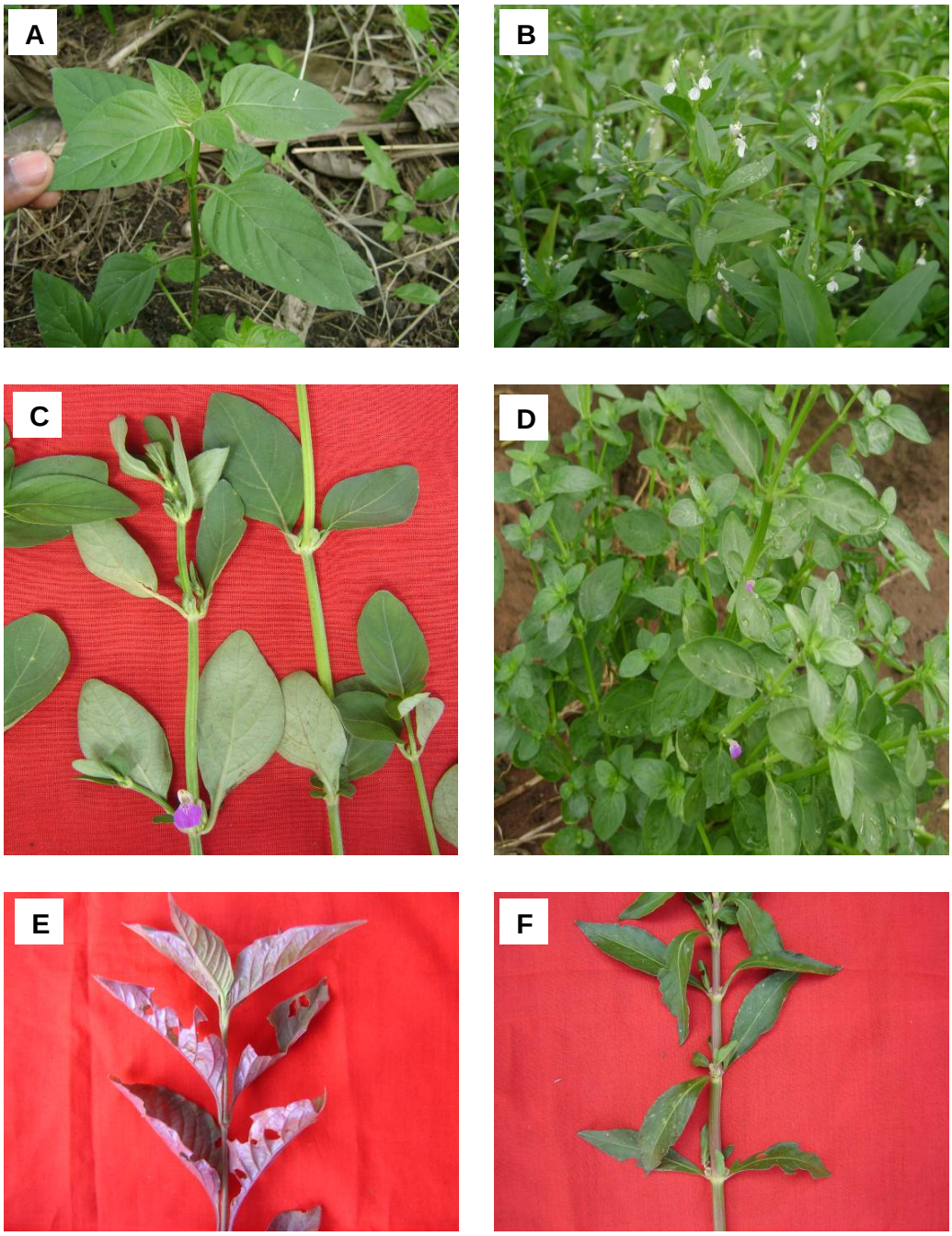

Plate 1. Acanthaceae**: A.** ***Asystasia gangetica*****, B.** ***Justicia anselliana*****, C.** ***Justicia insularis*****, D.** ***Justicia tenella*****.** Amaranthaceae**: E.** ***Althernanthera brasiliana*****, F.** ***Althernanthera sessilis.***

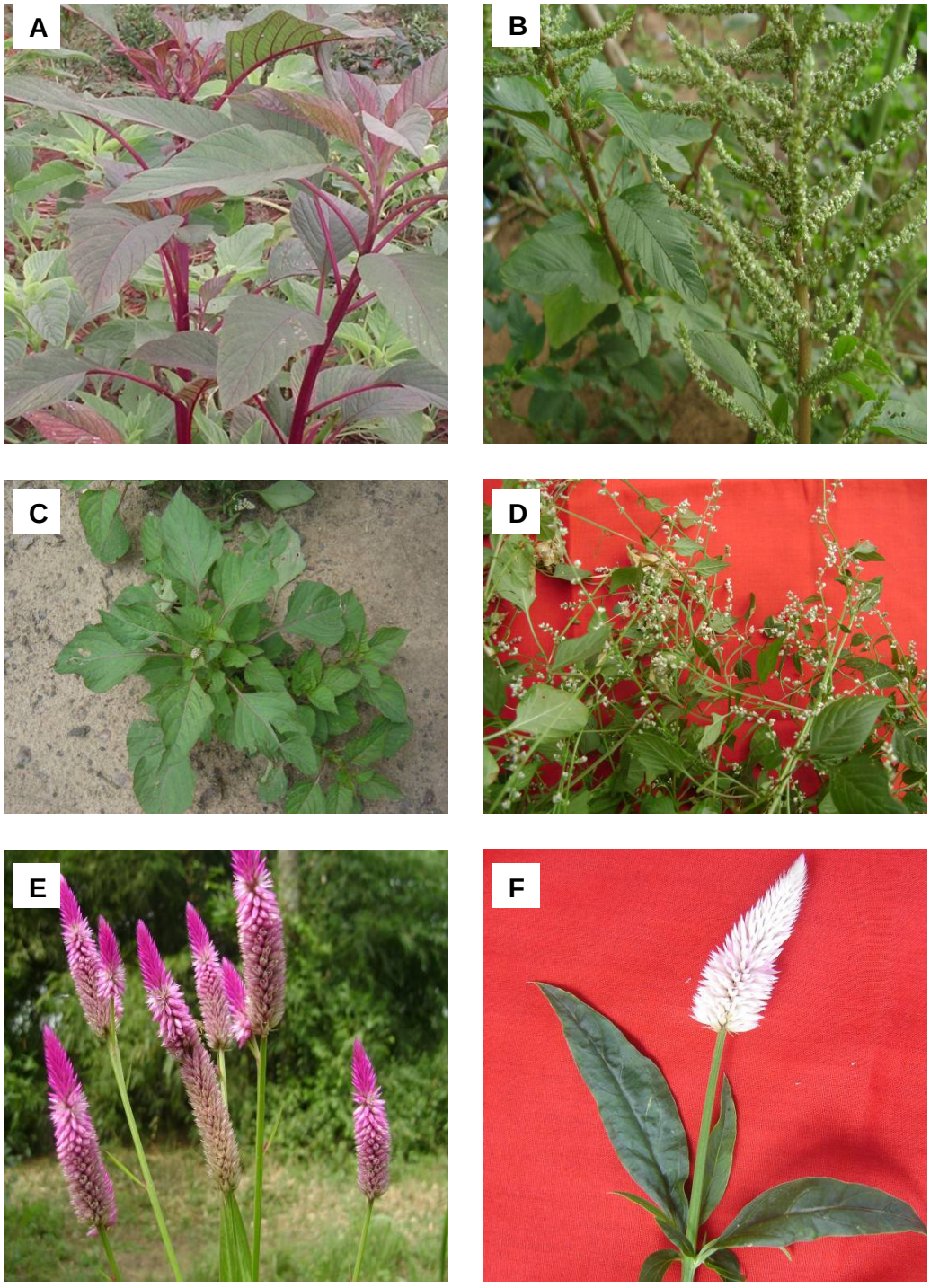

Plate 2. Amaranthaceae**: A.** ***Amaranthus cruentus*** **(red variety), B.** ***Amaranthus spinosus*****, C.** ***Amaranthus viridis*****, D.** ***Celosia trigyna*****, E.** ***Celosia argentea*** **(red variety). F.** ***Celosia argentea*** **(white variety).**

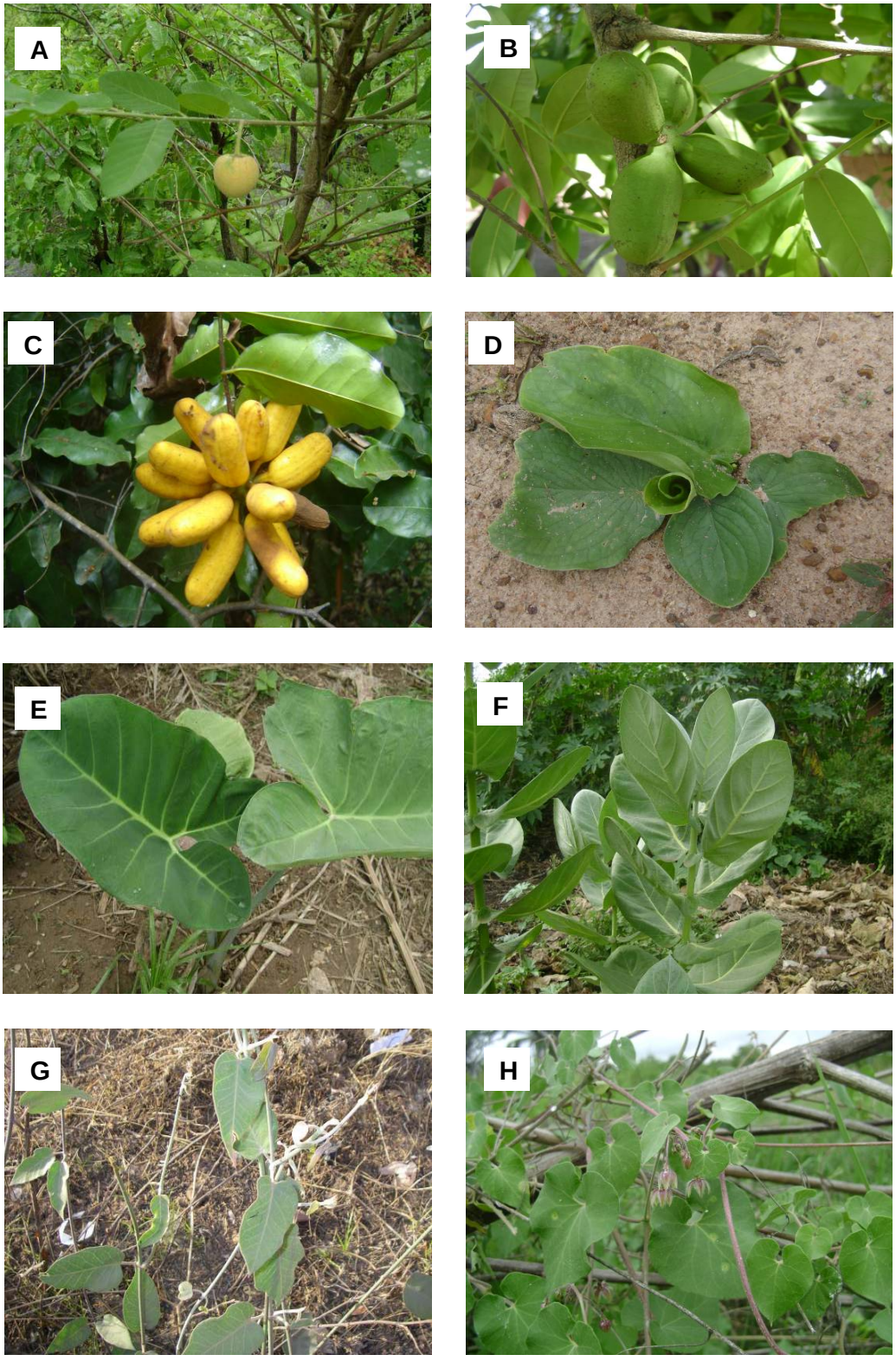

Plate 3. Annonaceae**: A.** ***Annona senegalensis*****, B.** ***Hexalobus monopetalus*****, C.** ***Uvaria chamae*** Araceae**: D.** ***Stylochaeton hypogeum*****, E.** ***Xanthosoma maffafa*****.** Asclepiadaceae**: F.** ***Calotropis procera*****. G.** ***Leptadenia hastata*****, H.** ***Pergularia daemia*****.**

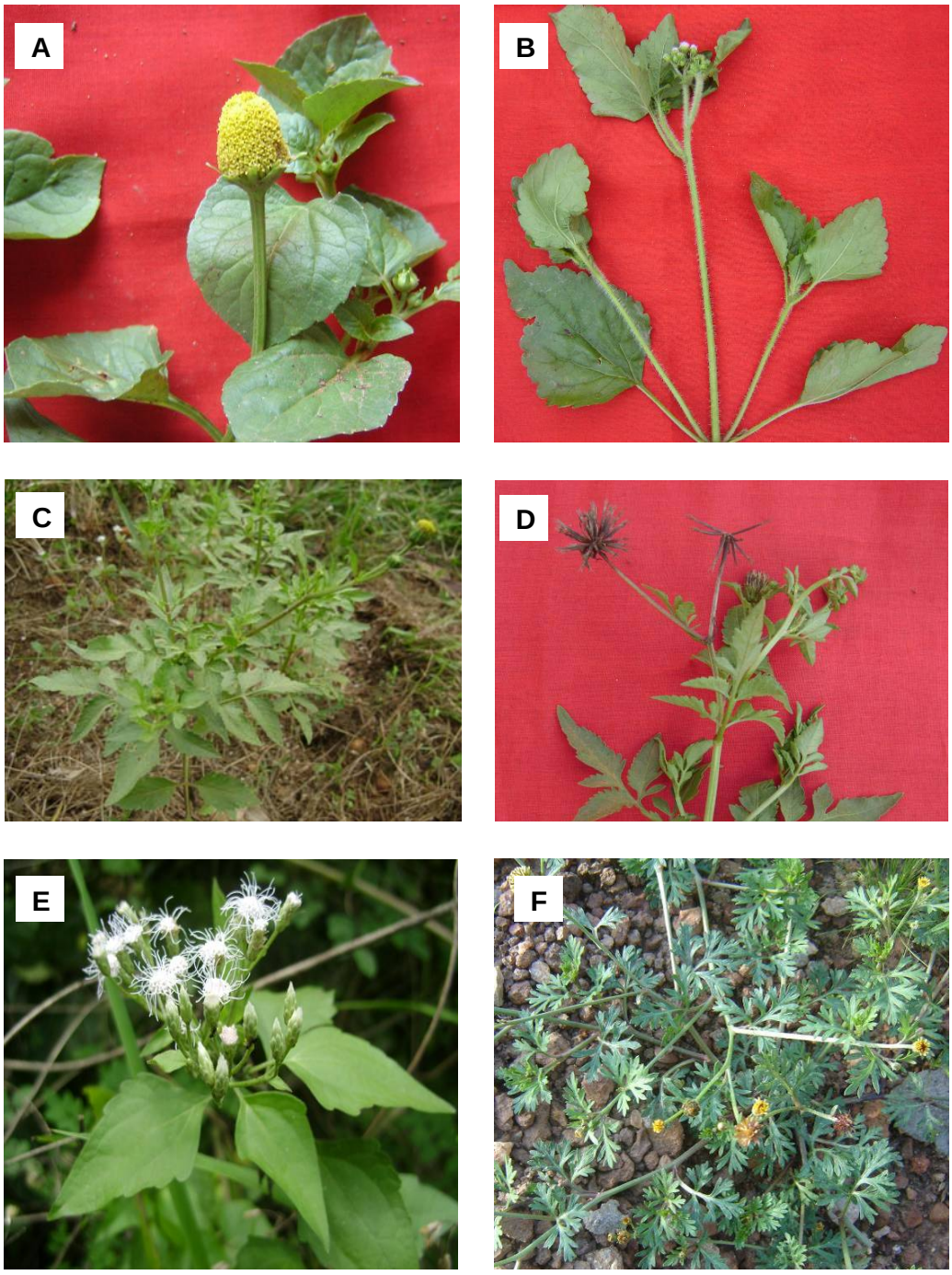

Plate 4. Asteraceae**. A.** ***Acmella oleracea*****, B.** ***Ageratum conizoides*****, C.** ***Bidens pilosa*** **(whole plant), D.** ***Bidens pilosa*** **(seeds), E.** ***Chromolaena odorata*****, F.** ***Chrysanthellum indicum*****.**

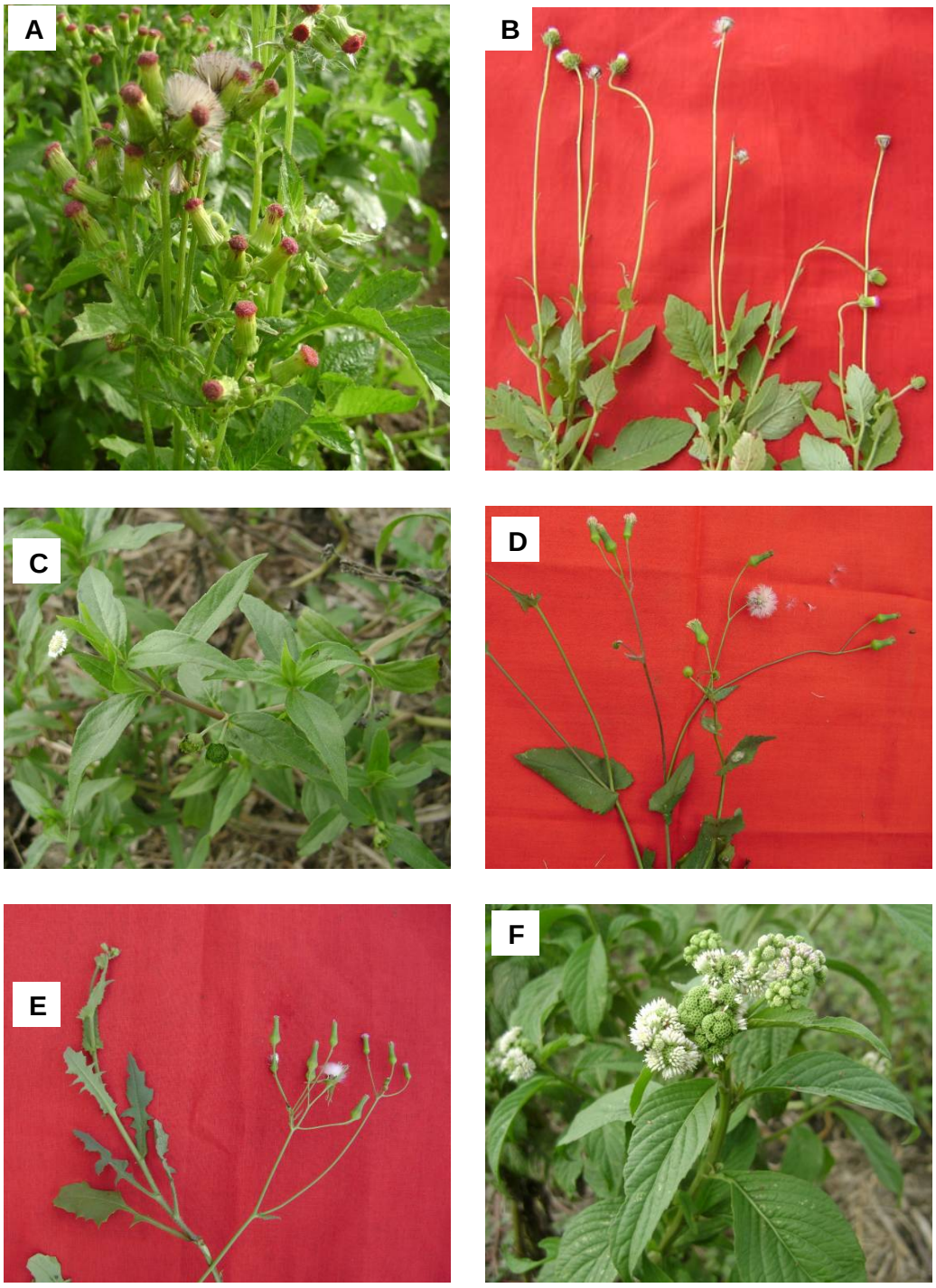

Plate 5. Asteraceae. **A.** ***Crassocephalum crepidioides*****, B.** ***Crassocephalum rubens*****, C.** ***Eclipta prostrata*****, D.** ***Emilia praetermissa*****, E.** ***Emilia sonchifolia*****, F.** ***Ethulia conyzoides*****.**

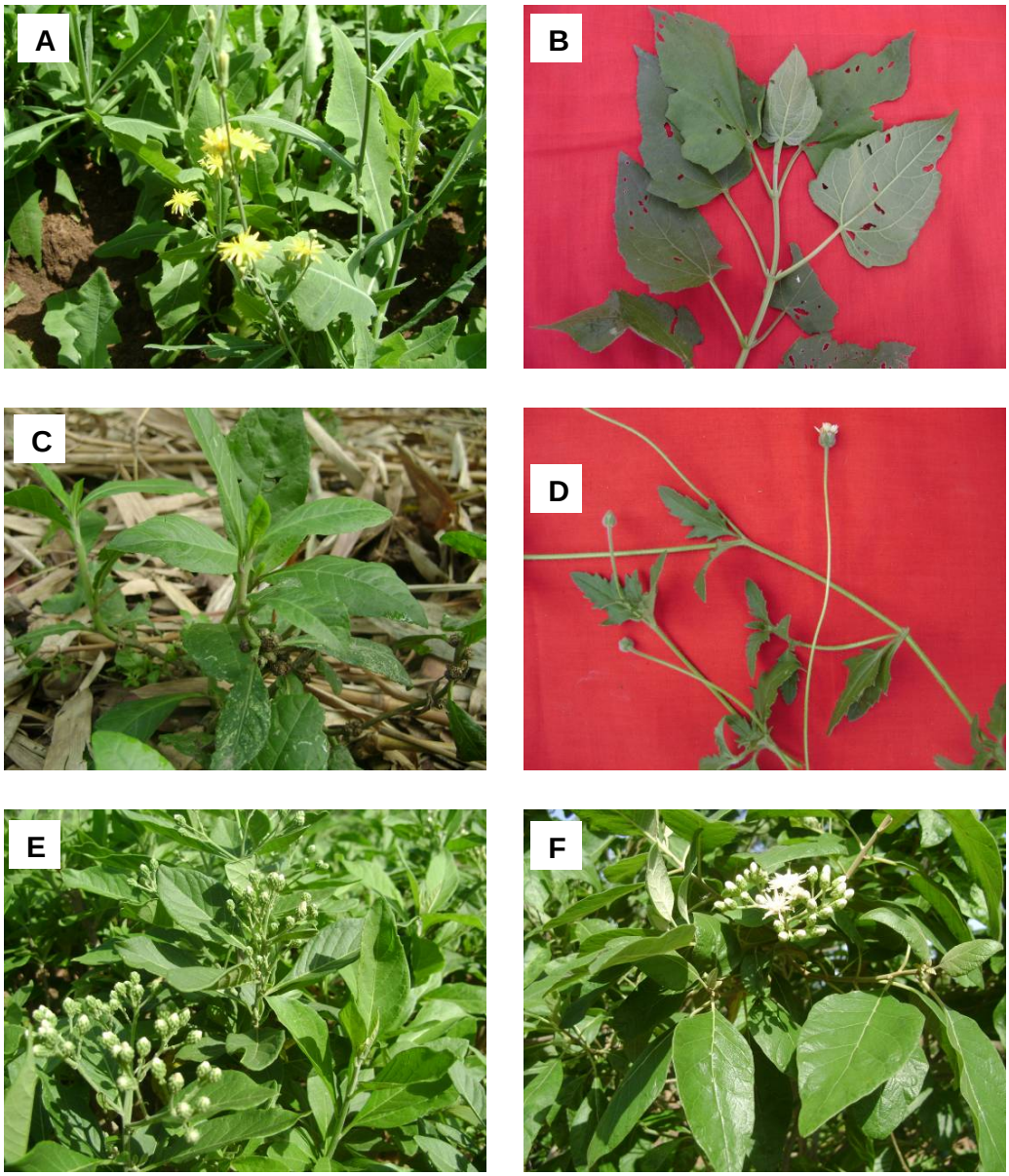

Plate 6. Asteraceae. **A.** ***Launaea taraxacifolia*****, B.** ***Melanthera scandens*****, C.** ***Struchium sparganophora*****, D.** ***Tridax procumbens*****, E.** ***Vernonia amygdalina*****, F.** ***Vernonia colorata*****.**

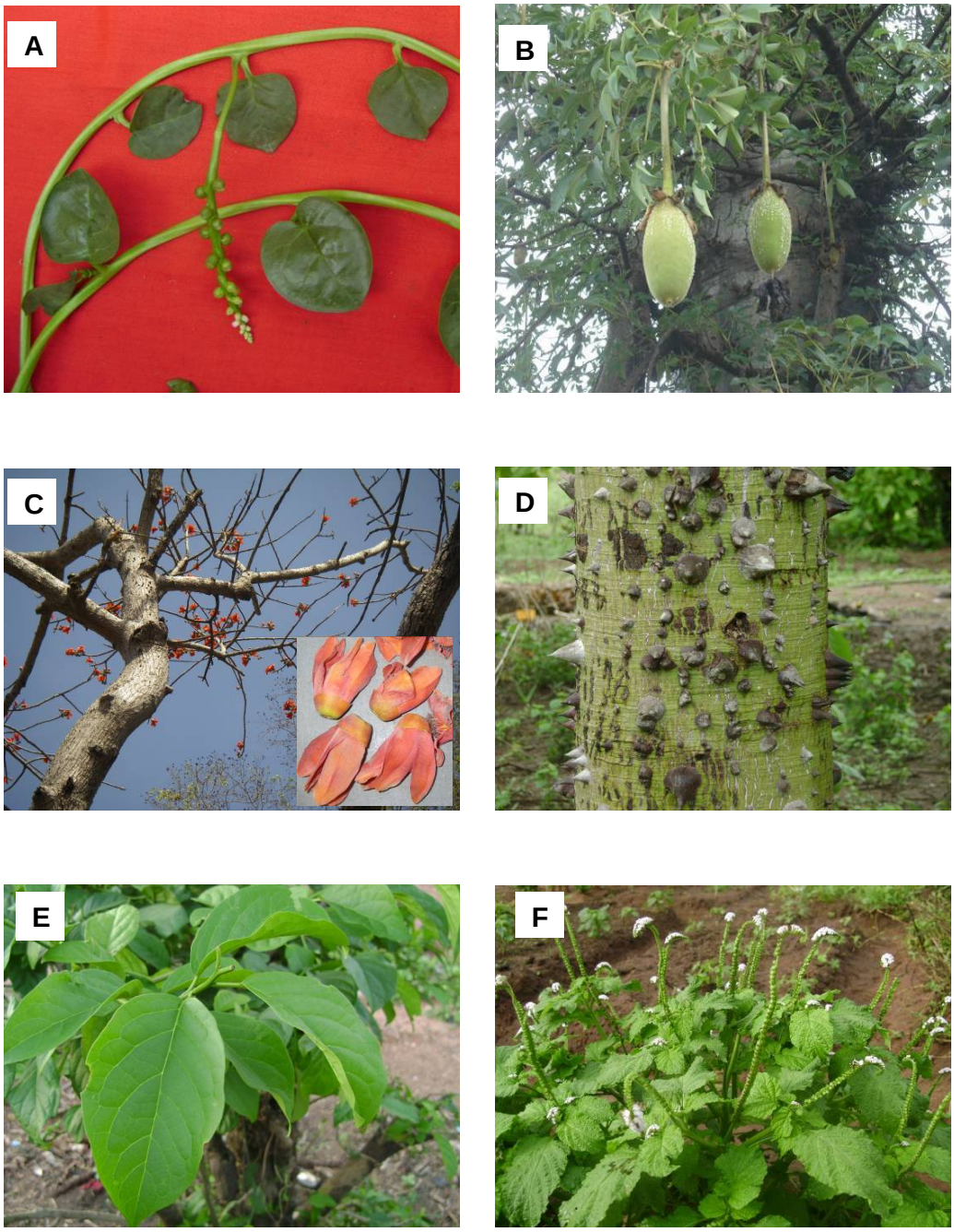

Plate 7. Basellaceae**: A.** ***Basella alba*****.** Bombacaceae**: B.** ***Adansonia digitata*****, C.** ***Bombax costatum*****, D.** ***Ceiba pentandra*****.** Boraginaceae**: E.** ***Ehretia cymosa*****, F.** ***Heliotropium indicum*****.**

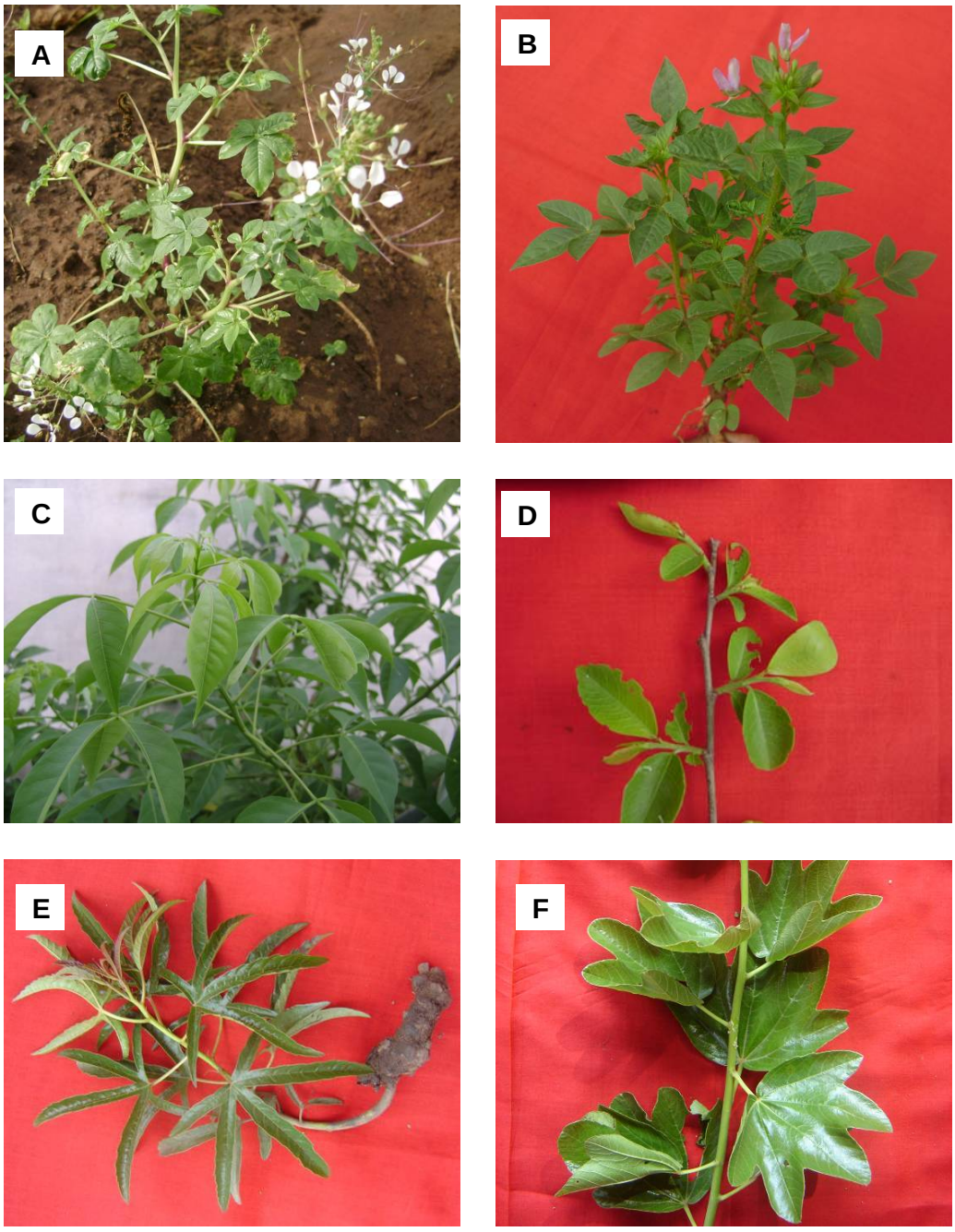

Plate 8. Capparaceae**: A.** ***Cleome gynandra*****, B.** ***Cleome rutidosperma*****, C.** ***Crateva adansonii*****, D.** ***Maerua angolensis*****.** Cochlospermaceae**: E.** ***Cochlospermum tinctorium*****, F.** ***Cochlospermum planchoni*****.**

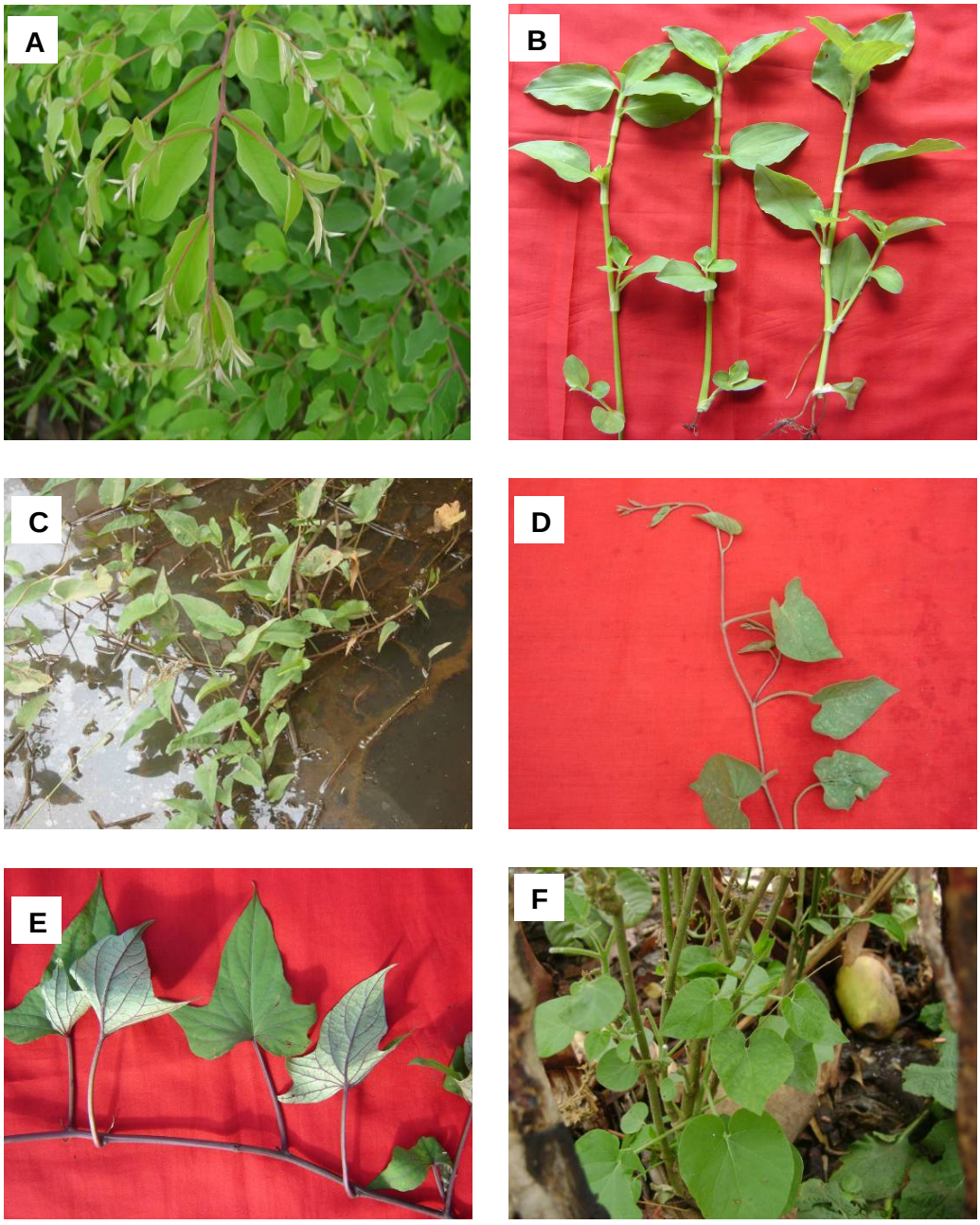

Plate 9. Combretaceae**: A.** ***Anogeissus leiocarpa*****.** Commelinaceae**: B.** ***Commelina benghalensis*****.** Convolvulaceae**: C.** ***Ipomoea aquatica*****, D.** ***Ipomoea triloba*****, E.** ***Ipomoea batatas*****, F.** ***Ipomoea vagans*****.**

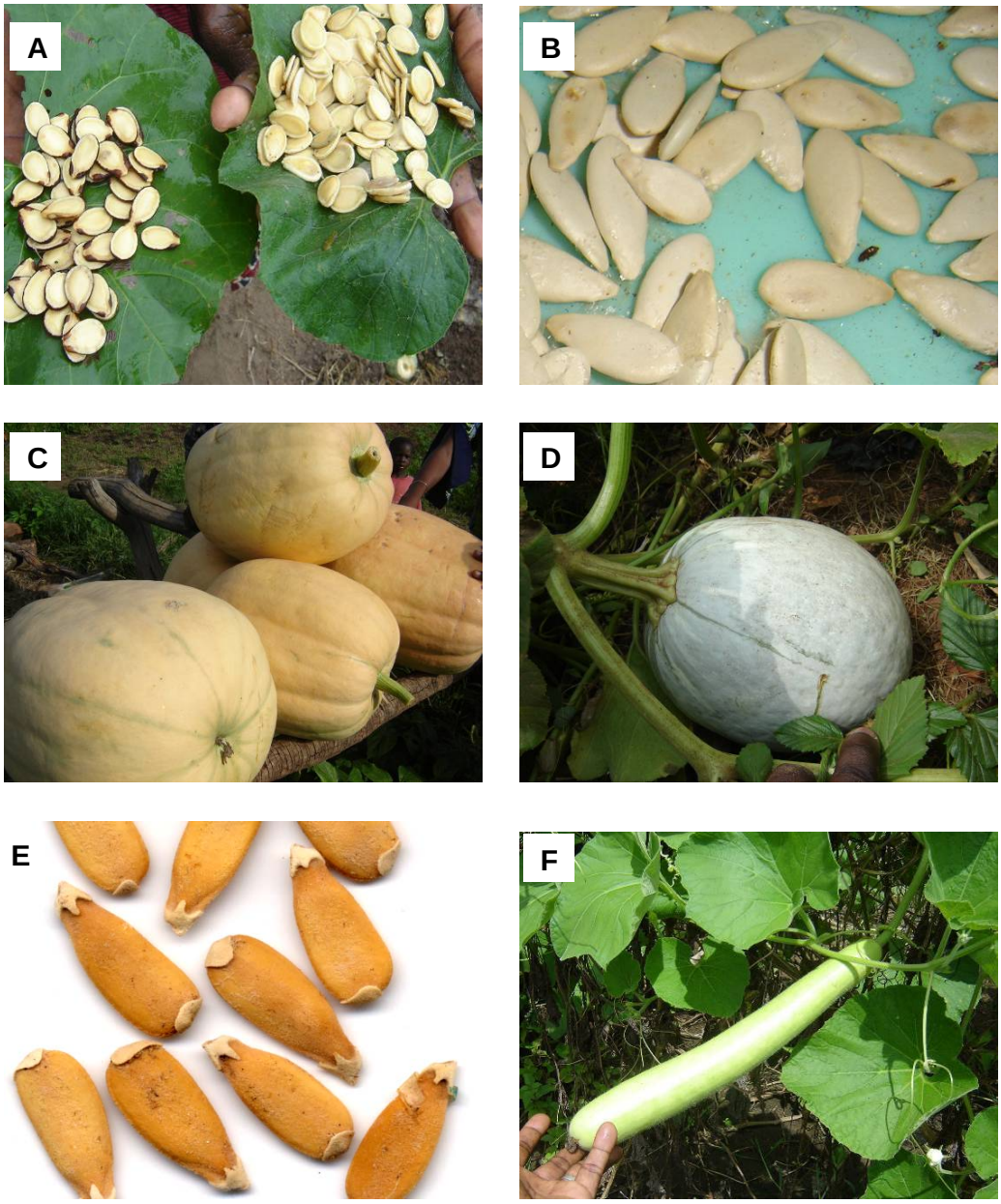

Plate 10. Cucurbitaceae. **A.** ***Citrullus lanatus*** **(egusi type), B.** ***Cucumeropsis mannii*****, C.** ***Cucurbita maxima*****, D.** ***Cucurbita moschata*****, E.** ***Lagenaria siceraria*** **(egusi type),** ***Lagenaria siceraria*** **(edible fruit).**

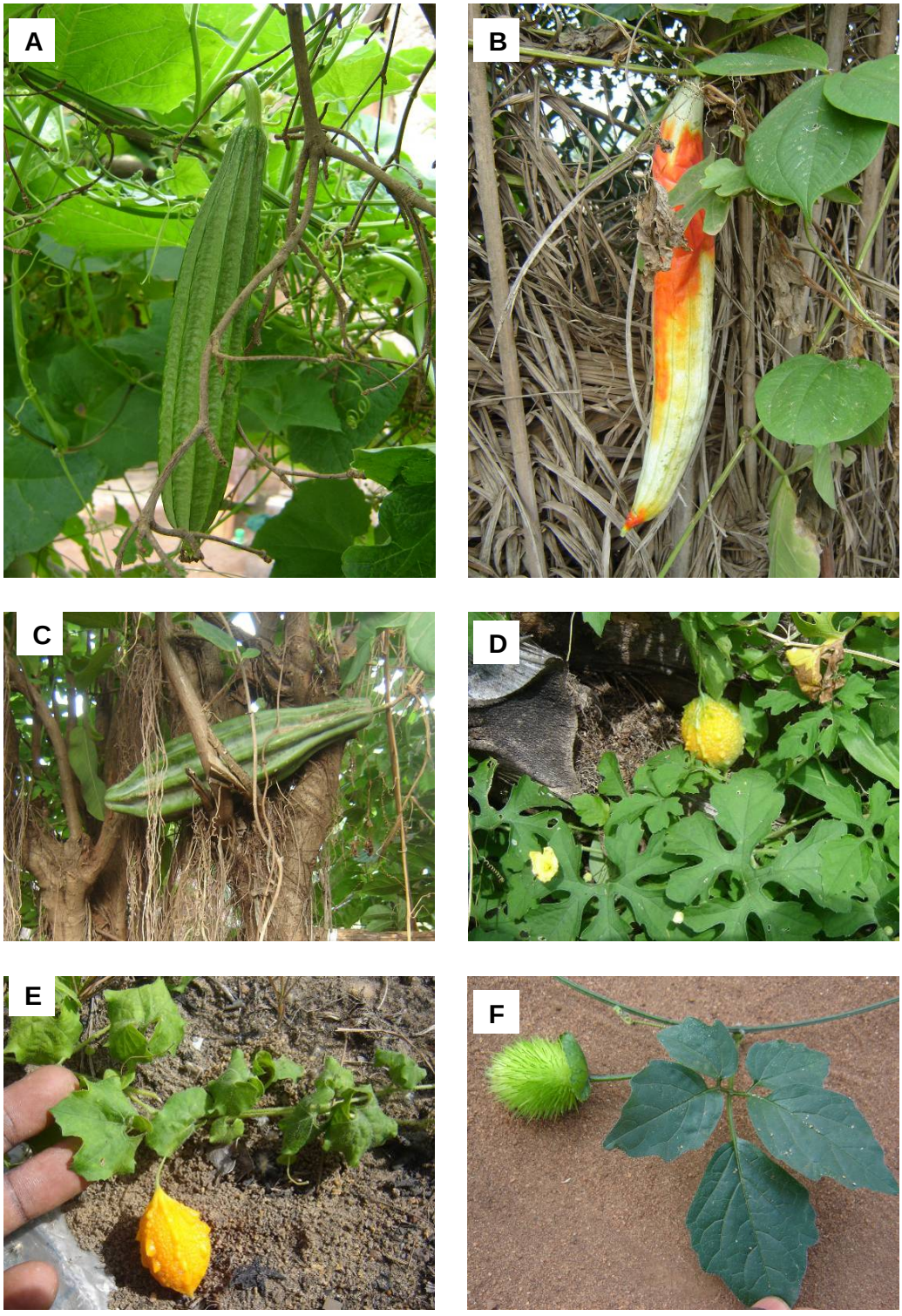

Plate 11. Cucurbitaceae **: A.** ***Luffa acutangula*****, B.** ***Trichosanthes cucumerina*****, C.** ***Telfairia occidentalis*****. D.** ***Momordica charantia*** **subsp.** ***charantia*****, E.** ***Momordica charantia*** **subsp.** ***macroloba*****, F.** ***Momordica cissoides*****.**

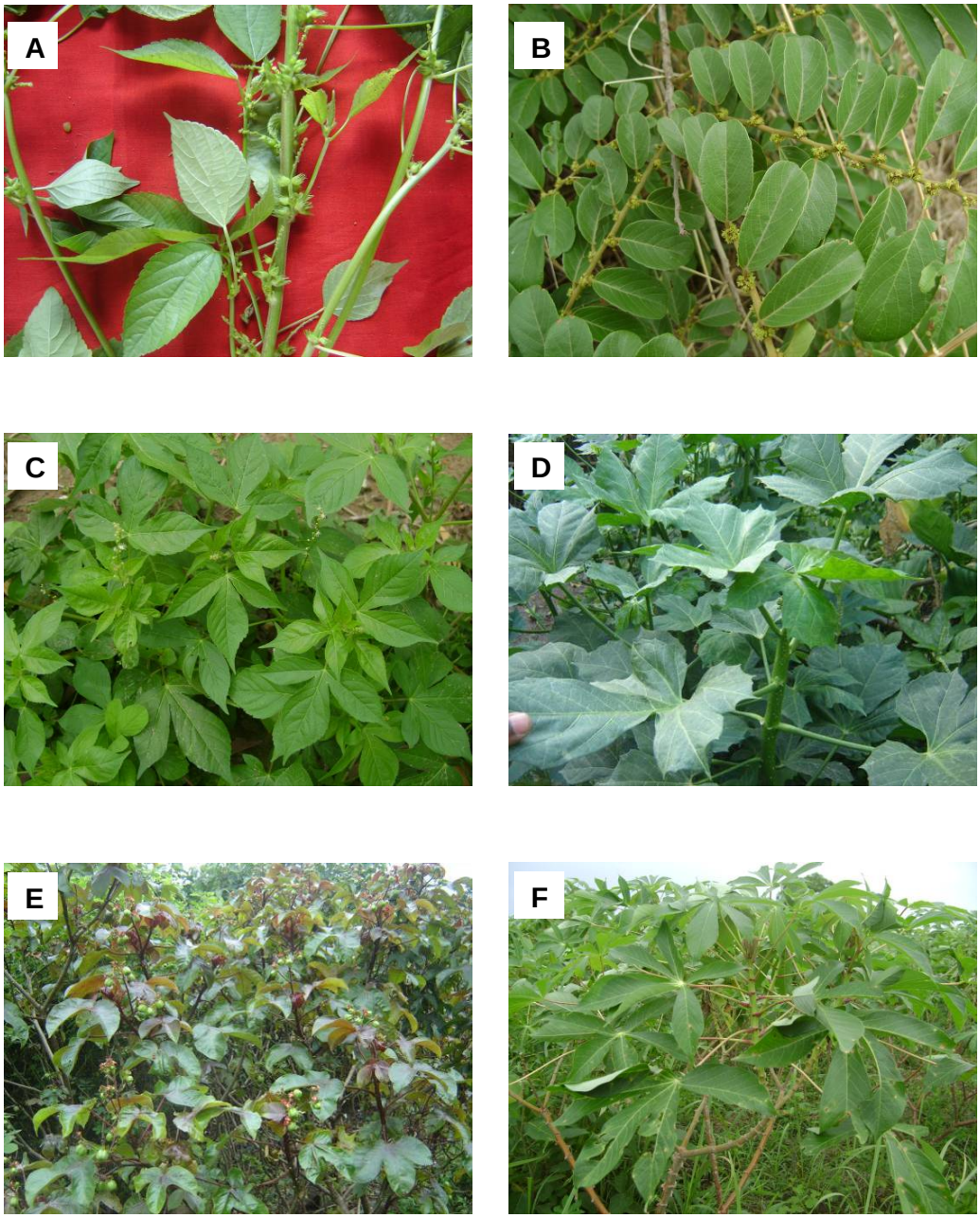

Plate 12. Euphorbiaceae**: A.** ***Acalypha ciliata*****, B.** ***Bridelia ferruginea*****, C.** ***Croton lobatus*****, D.** ***Jatropha*** **sp., E.** ***Jatropha gossypiifolia*****, F.** ***Manihot esculenta*****.**

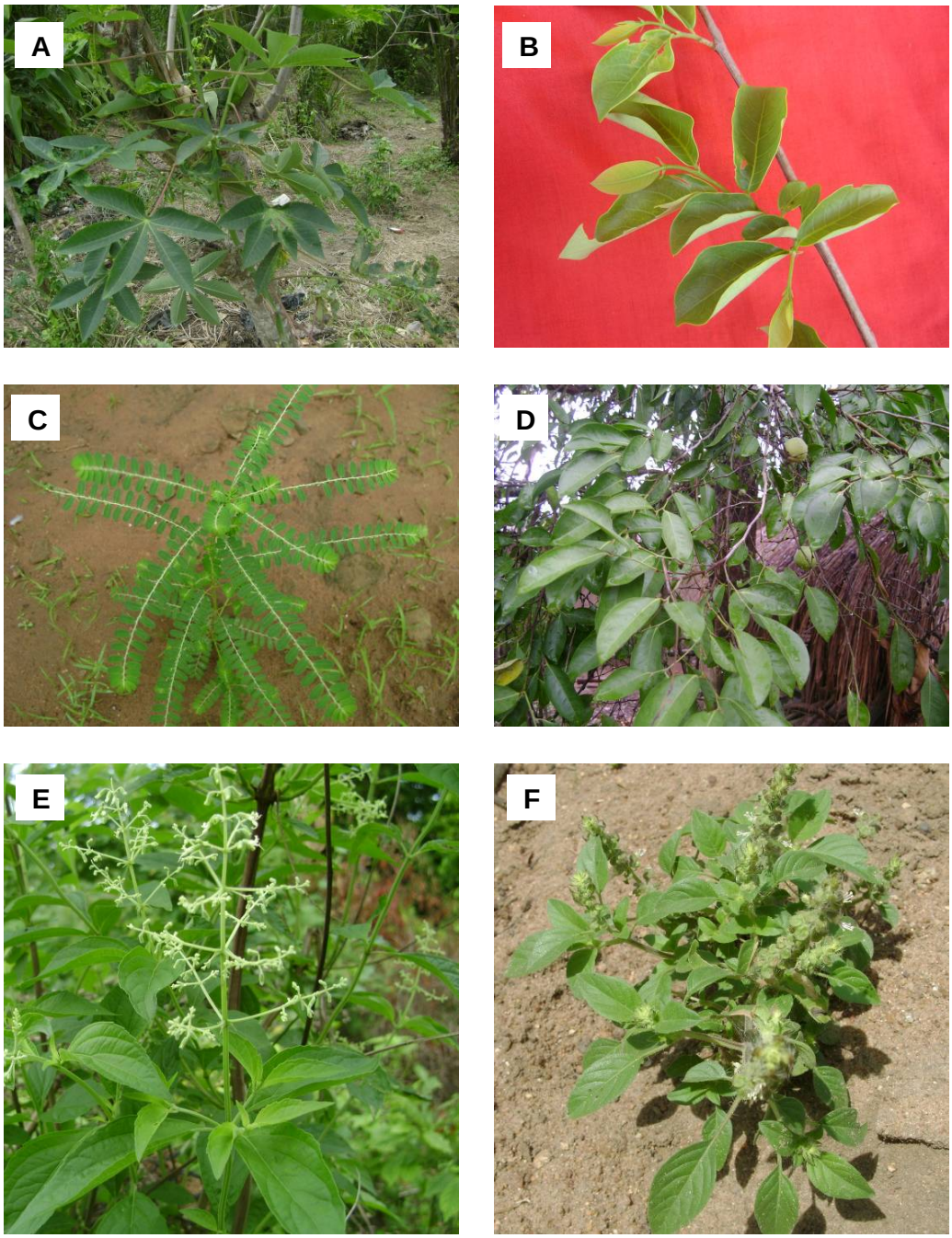

Plate 13. Euphorbiaceae**: A.** ***Manihot glazovii*****, B.** ***Margaritaria discoidea*****, C.** ***Phyllanthus amarus*****.** Irvingiaceae**: D.** ***Irvingia gabonensis*****.** Lamiaceae**: E.** ***Hoslundia opposita*****, F.** ***Ocimum americanum*****.**

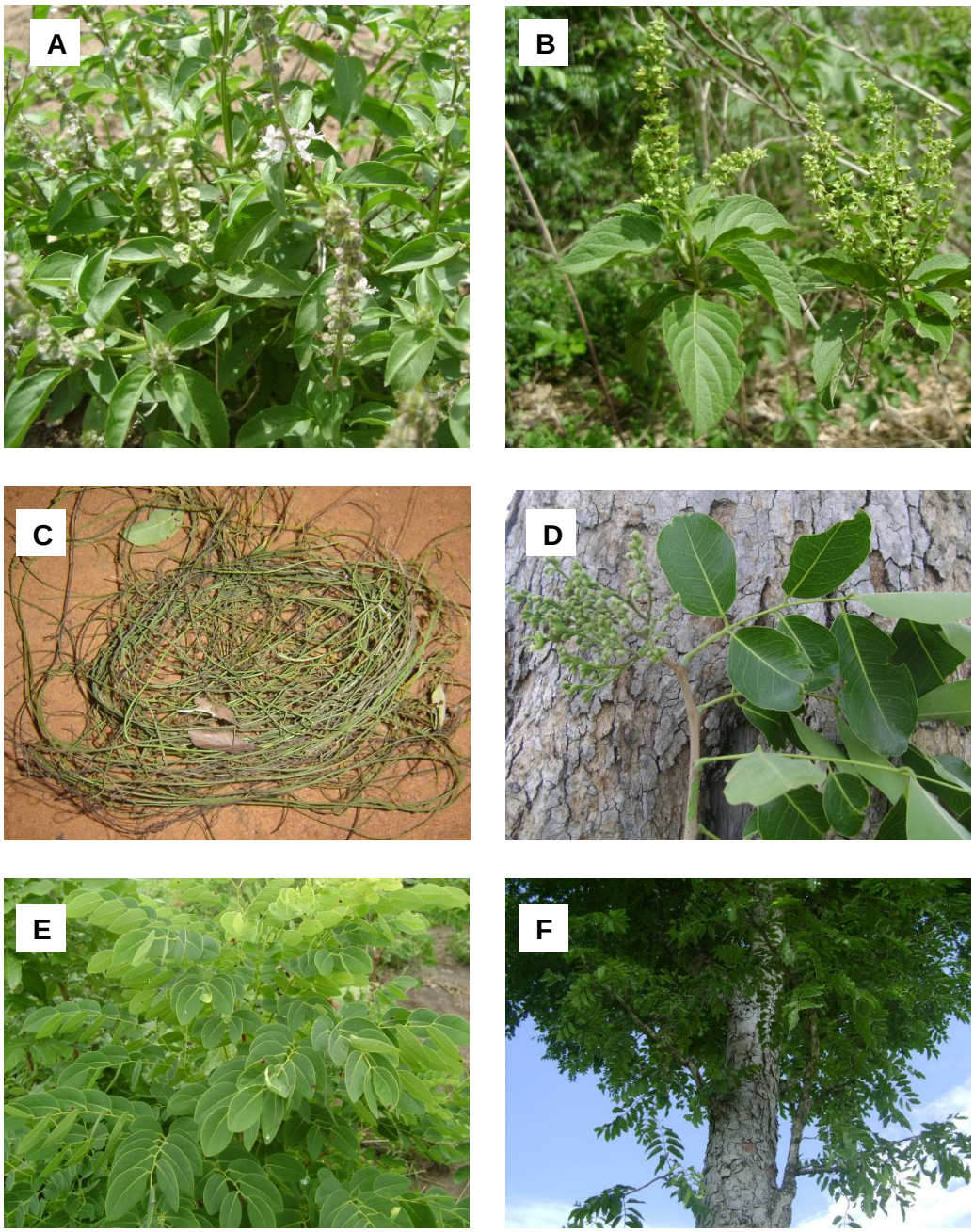

Plate 14. Lamiaceae**: A.** ***Ocimum basilicum*****, B.** ***Ocimum gratissimum*****,** Lauraceae**: C.** ***Cassytha filiformis*****.** Leguminosae-Caesalpinioideae **: D.** ***Afzelia africana*****, E.** ***Burkea africana*****, F.** ***Daniellia oliveri*****.**

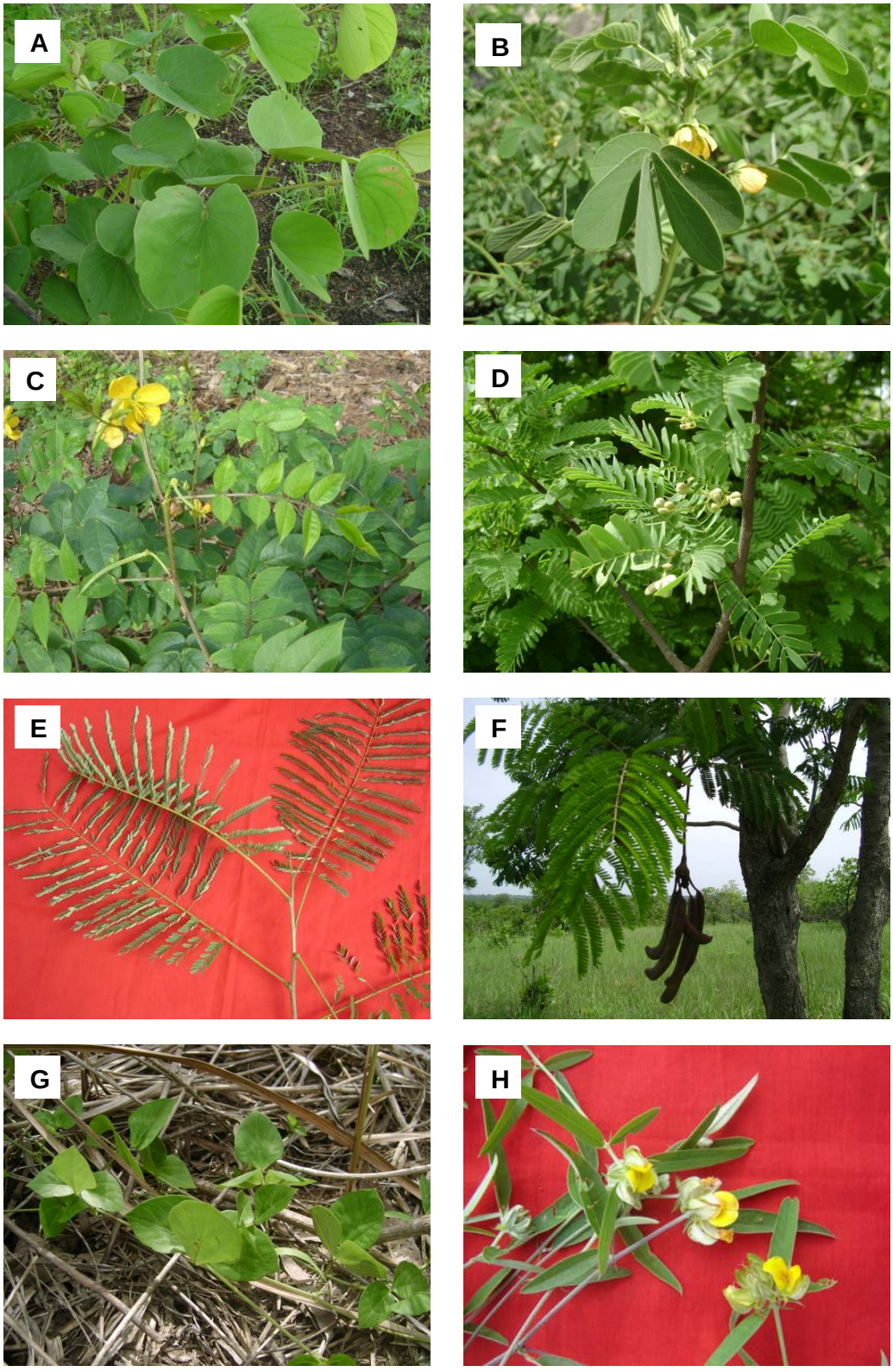

Plate 15. Leguminosae-Caesalpinioideae **: A.** ***Piliostigma thonningii*****, B.** ***Senna obtusifolia*****, C.** ***Senna occidentalis*****, D.** ***Tamarindus indica*****.** Leguminosae-Mimosoideae**: E.** ***Entada africana*****, F.** ***Parkia biglobosa*****.** Leguminosae-Papilionoideae**: G.** ***Centrosema plumieri*****, H.** ***Crotalaria macrocalyx*****.**

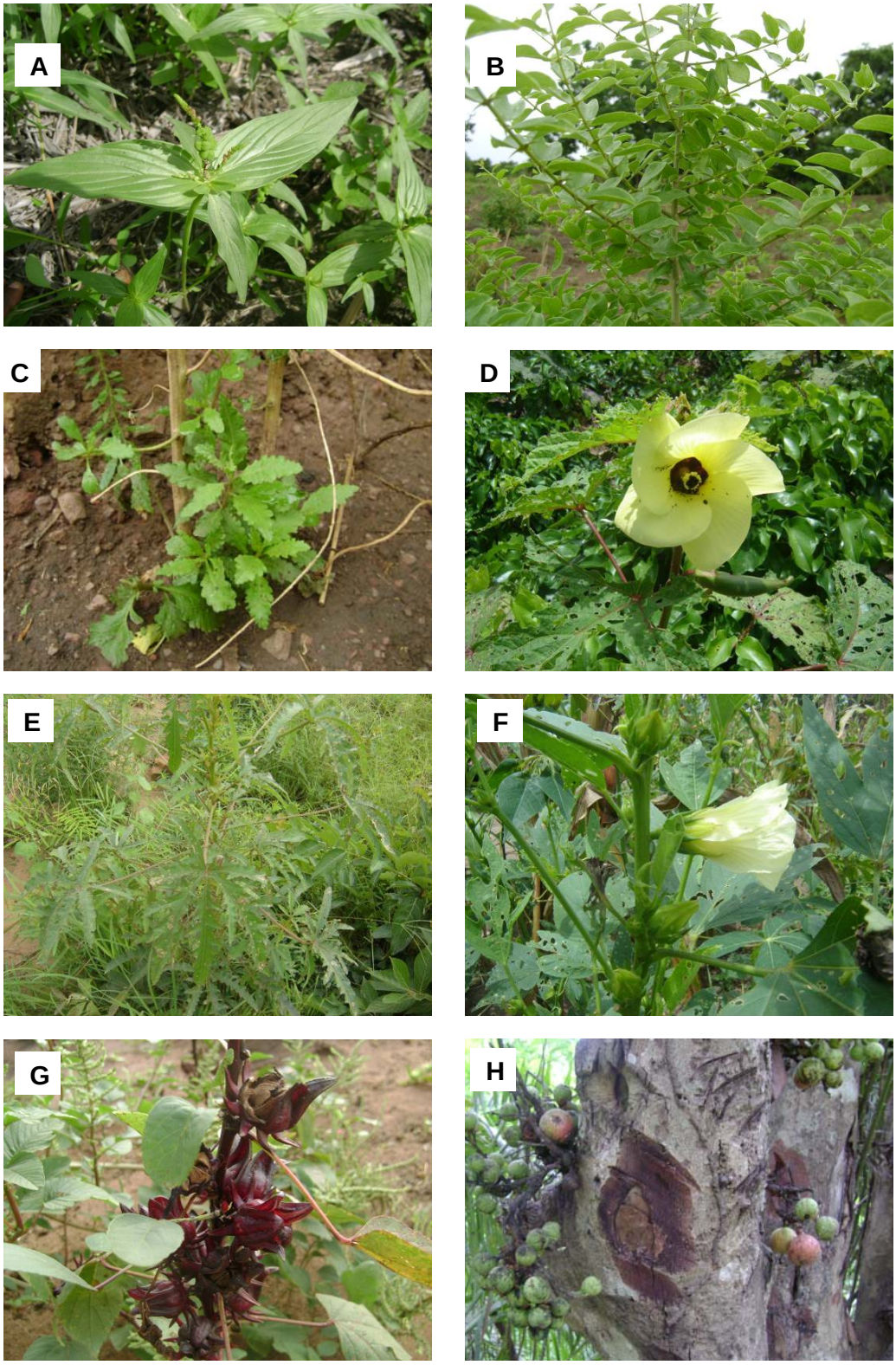

Plate 16. Loganiaceae **: A.** ***Spigelia anthelmia,*** **B.** ***Strychnos innocua.*** Lythraceae**: C.** ***Ammannia baccifera.*** Malvaceae**: D.** ***Abelmoschus esculentus,*** **E.** ***Hibiscus asper,*** **F.** ***Hibiscus sabdariffa*** **(Green variety) G.** ***Hibiscus sabdariffa*** **(Red variety).** Moraceae**: H.** ***Ficus asperifolia.***

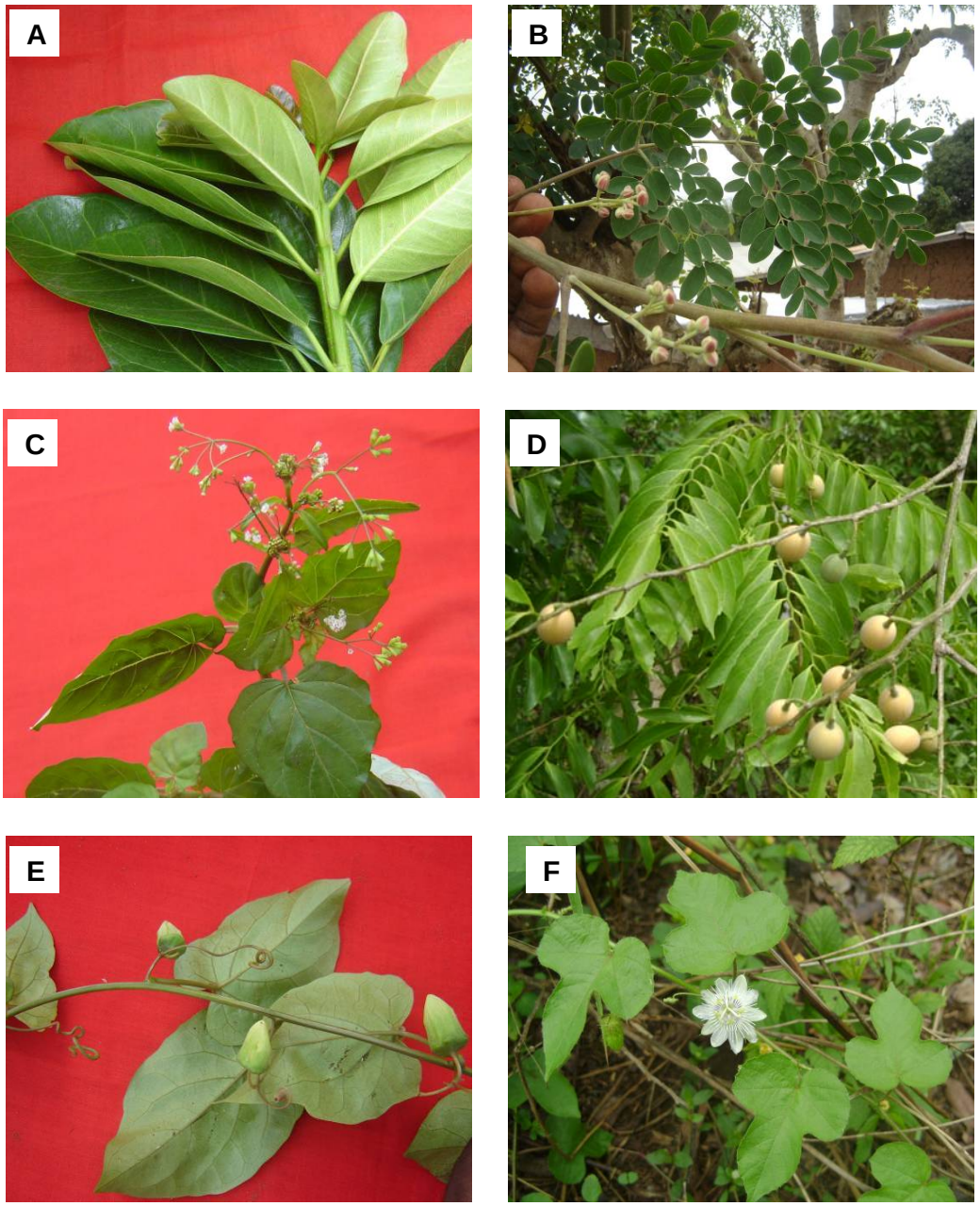

Plate 17. Moraceae**: A.** ***Ficus thonningii*****.** Moringaceae**: C.** ***Moringa oleifera*****.** Nyctaginaceae**: D.** ***Boerhavia erecta*****.** Opiliaceae**: E.** ***Opilia amentacea.*** Passifloraceae**: E.** ***Adenia lobata*****, F.** ***Passiflora foetida.***

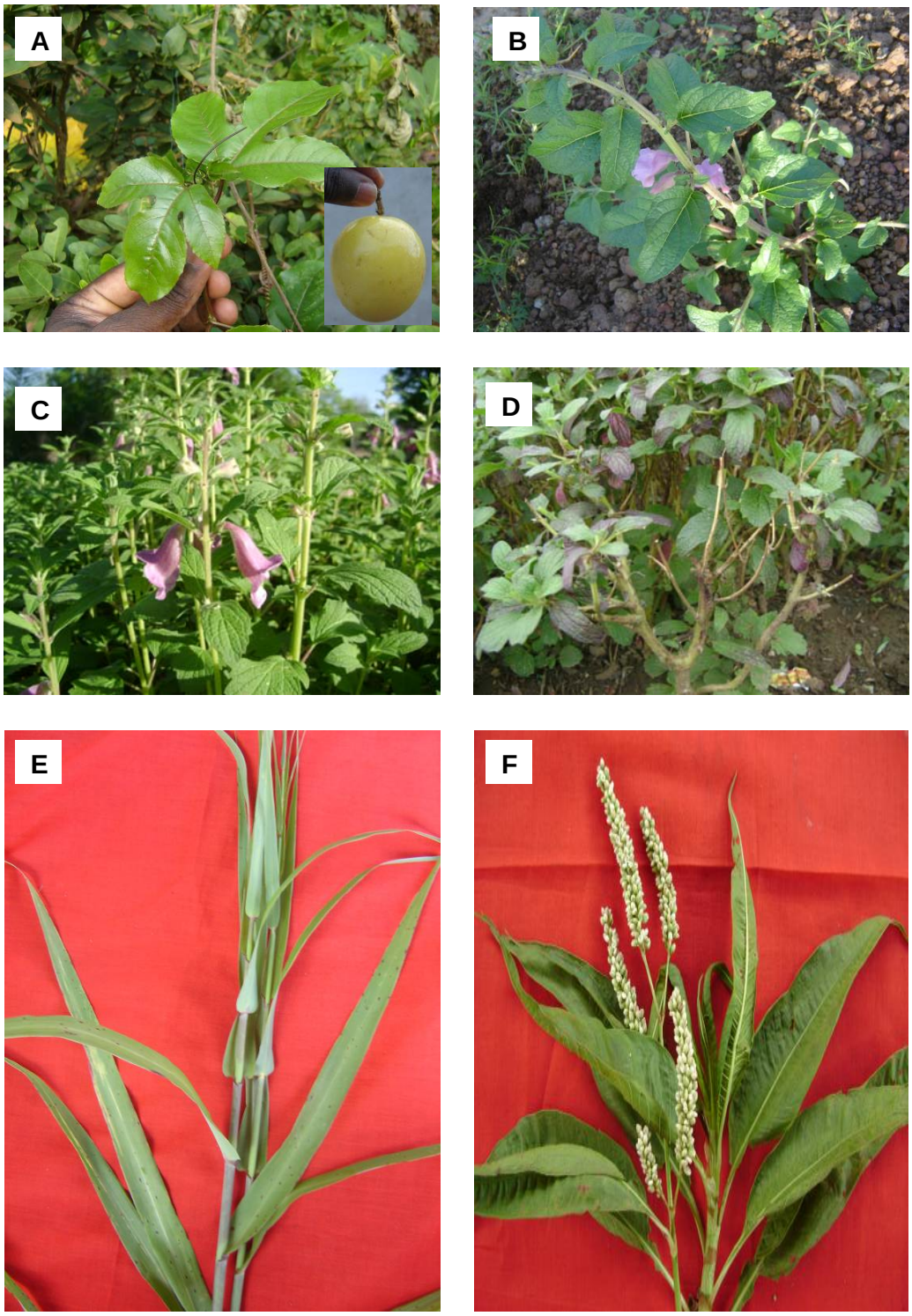

Plate 18. Passifloraceae**: A.** ***Passiflora edulis.*** Pedaliaceae **: B.** ***Ceratotheca sesamoides*****, C.** ***Sesamum indicum*****, D.** ***Sesamum radiatum.*** Poaceae**: E.** ***Cymbopogon giganteus.*** Polygonaceae**: F.** ***Persicaria senegalensis.***

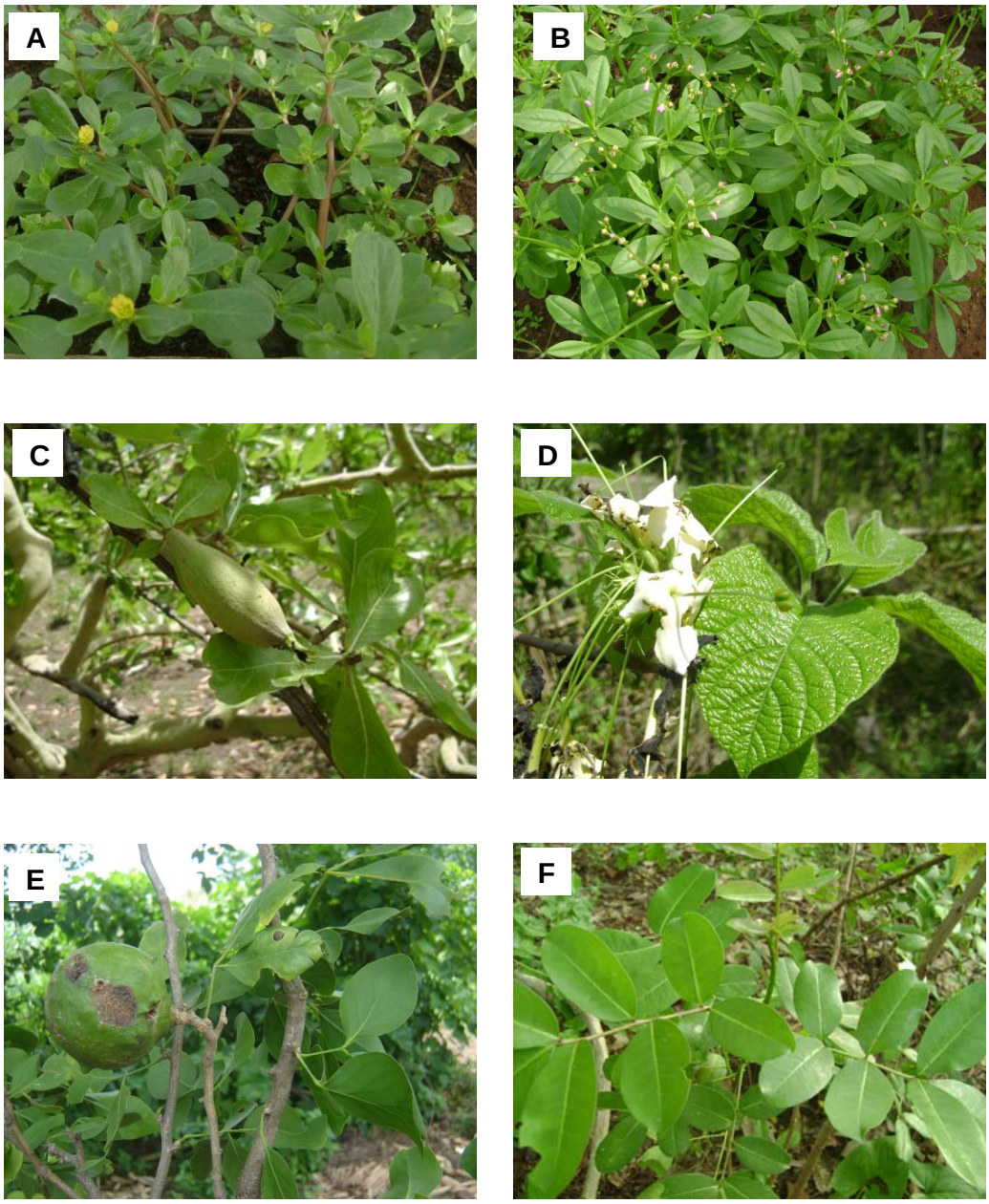

Plate 19.. Portulacaceae**: A.** ***Portulaca oleracea*****, B.** ***Talinum triangulare*****.** Rubiaceae**: C.** ***Gardenia ternifolia*****, D.** ***Macrosphyra longistyla*****.** Rutaceae**: E.** ***Afraegle paniculata*****, F.** ***Zanthoxylum zanthoxyloides*****.**

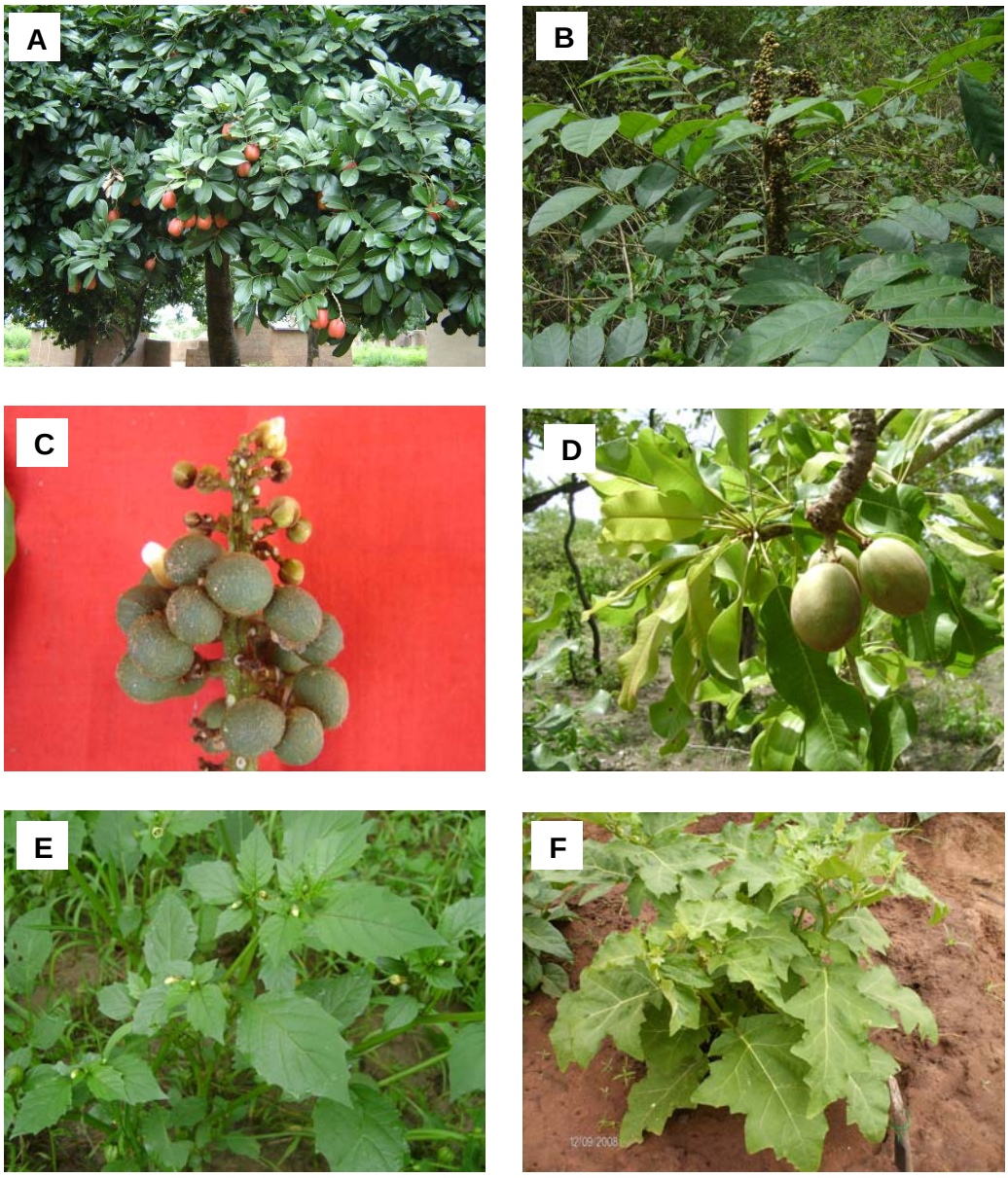

Plate 20. Sapindaceae**: A.** ***Blighia sapida*****, B.** ***Deinbollia pinnata*** **(plant), C.** ***Deinbollia pinnata*** **(fruit).** Sapotaceae**: D.** ***Vitellaria paradoxa*****.** Solanaceae**: E.** ***Physalis angulata*****, F.** ***Solanum aethiopicum.***

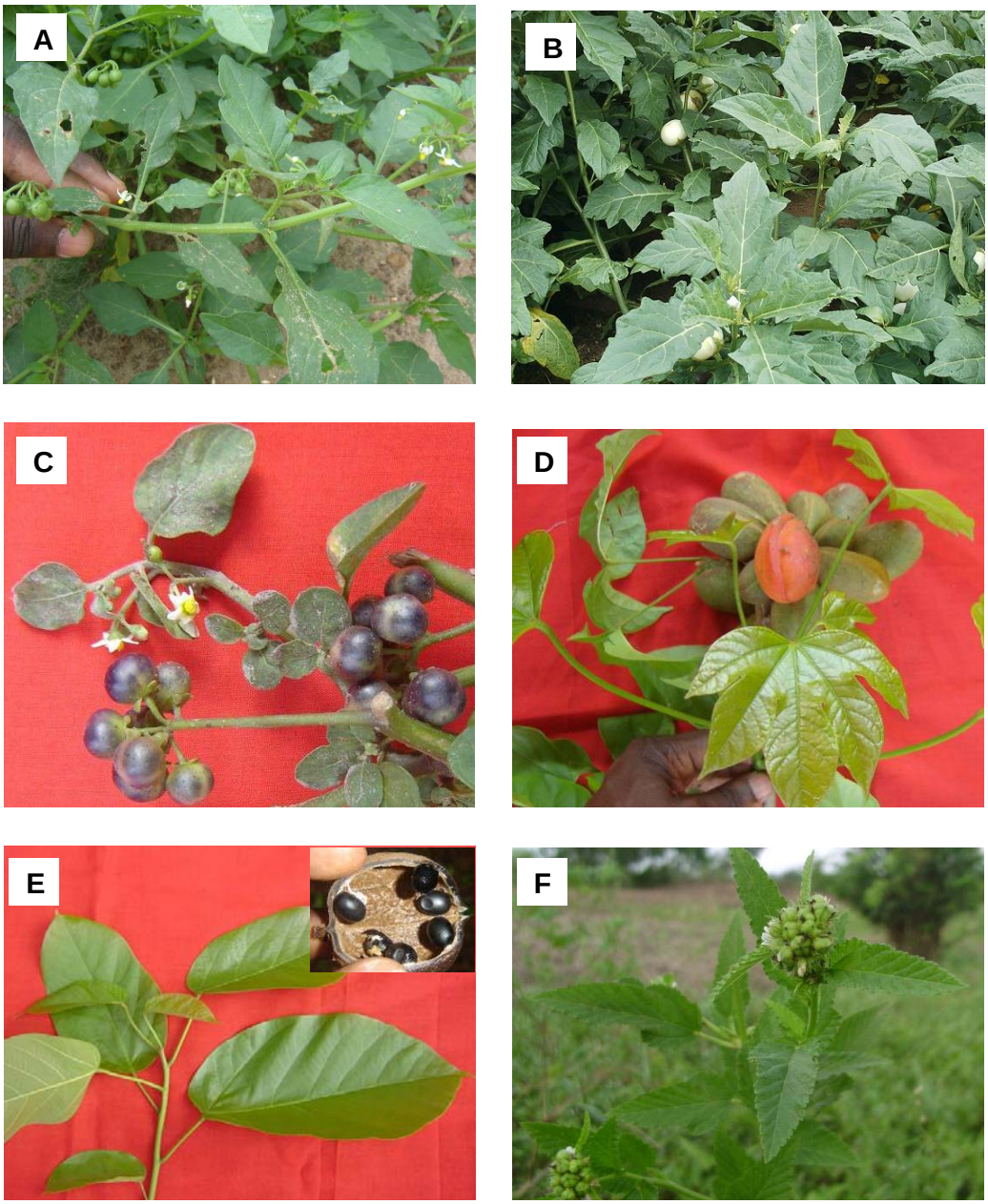

Plate 21. Solanaceae**: A.** ***Solanum americanum*****, B.** ***Solanum macrocarpon*****, C.** ***Solanum scabrum*****.** Sterculiaceae: **E.** ***Cola millenii*** **(leaves and seed), F.** ***Melochia corchorifolia*****.**

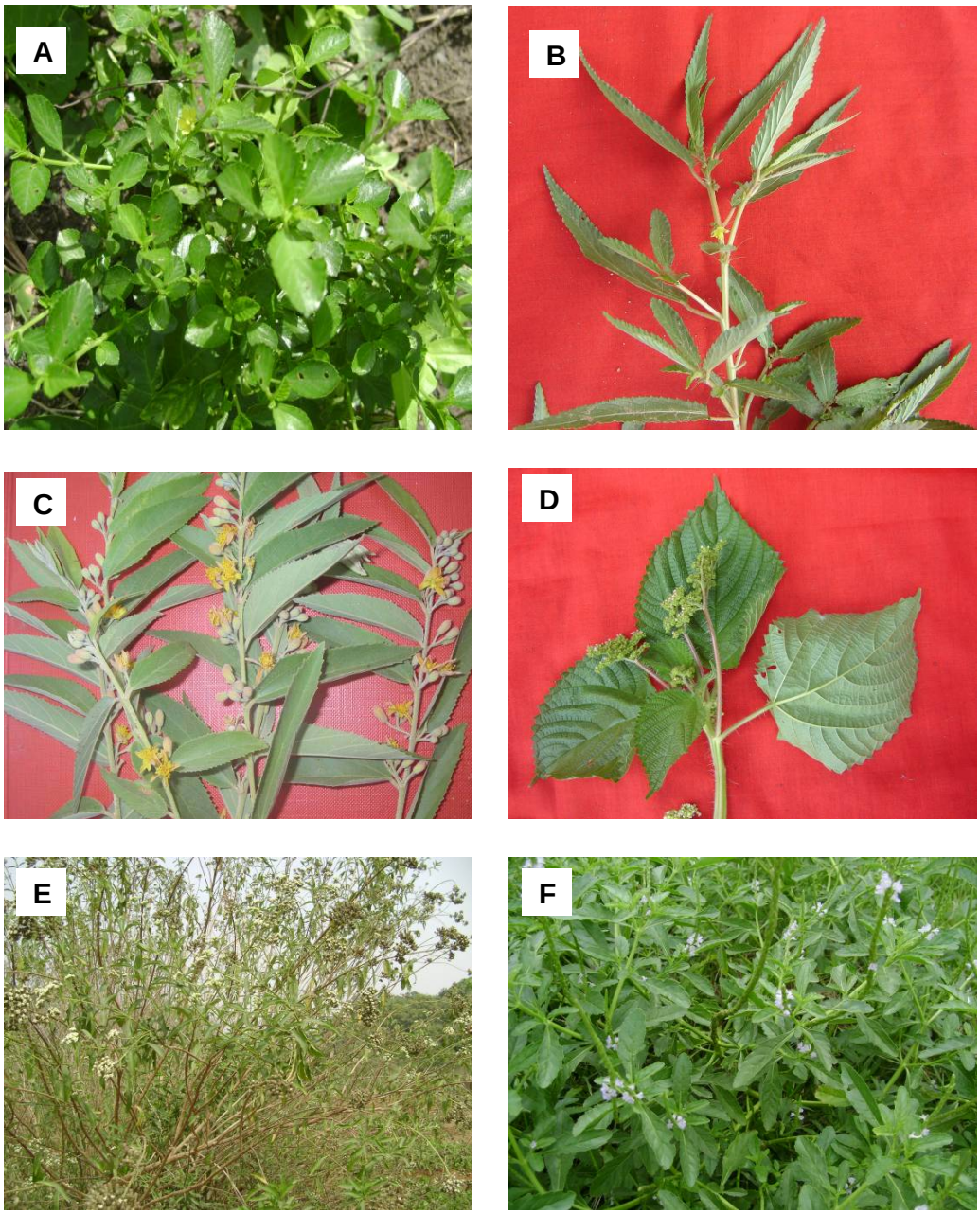

Plate 22. Tiliaceae**: A.** ***Corchorus olitorius*****, B.** ***Corchorus tridens*****, C.** ***Grewia mollis*****.** Urticaceae**: D.** ***Laportea aestuens*****.** Verbenaceae**. E.** ***Lippia multiflora*****, F.** ***Stachytarpheta indica*****.**

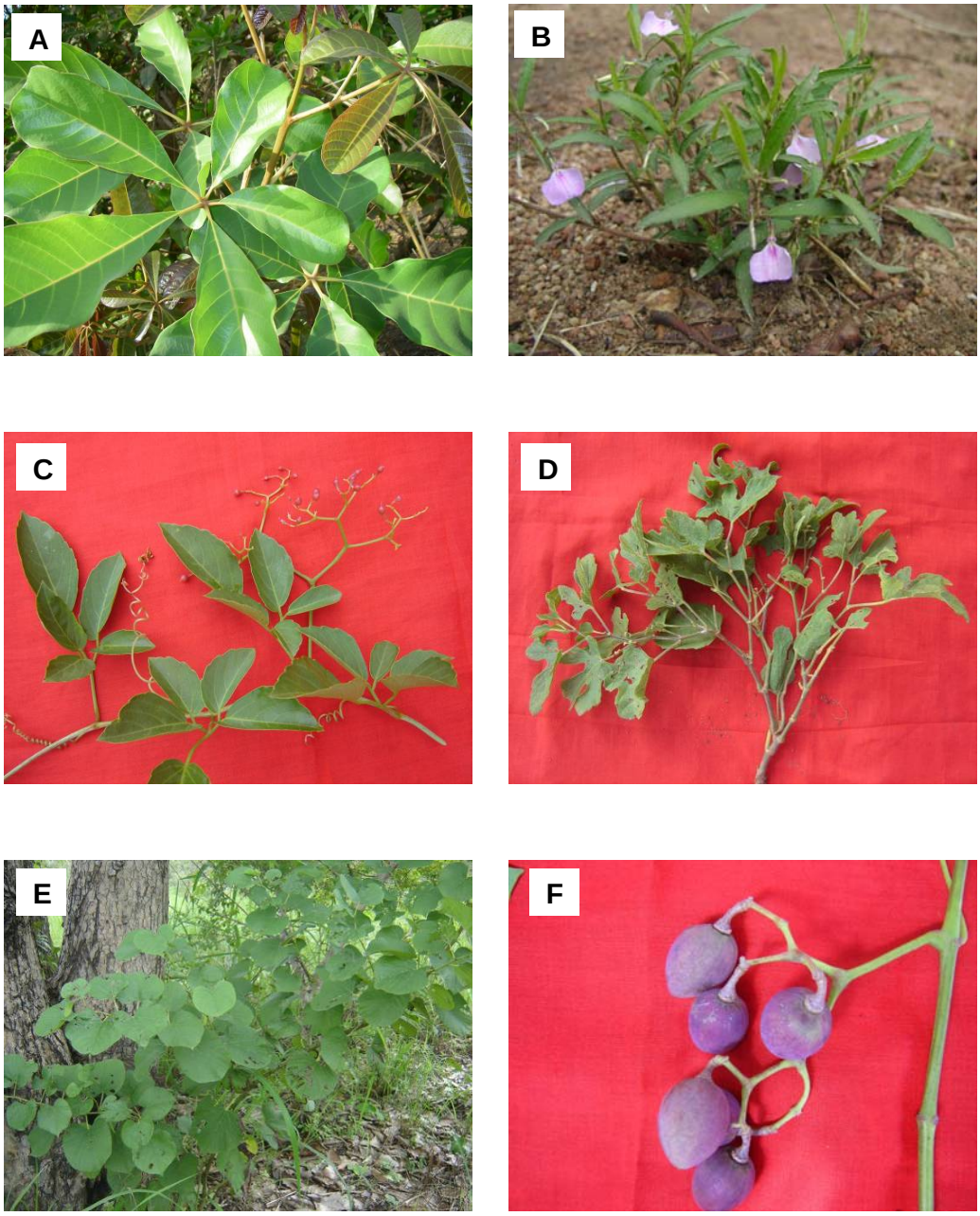

Plate 23. Verbenaceae. **A.** ***Vitex doniana***. Violaceae**: B.** ***Hybanthus enneaspermus***. Vitaceae**: C.** ***Cyphostemma adenocaule*****, D.** ***Cissus palmatifida*****, E.** ***Cissus populnea*** **(vine), F.** ***Cissus populnea*** **(fruit).**

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Annex A. Local names in alphabetical order

Local Name	Linguistic group	Scientific name	Authorship	Family
Aagou	Ifè	*Ceiba pentandra*	(L.) Gaertn.	Bombacaceae
Aagun	Tchabè	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Abafi	Anii	*Celosia argentea*	L.	Amaranthaceae
Abahoham	Dendi	*Amaranthus cruentus*	L.	Amaranthaceae
Abofroufrou	Anii	*Chromolaena odorata*	(L.) R. M. King	Asteraceae
Abokpaba	Gourmantché	*Basella alba*	L.	Basellaceae
Abonoukodjoflonou	Kotokoli	*Emilia praetermissa*	Milne-Rredh.	Asteraceae
Abonu	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Abotian	Bariba	*Ocimum americanum*	L.	Lamiaceae
Abotian	Bariba	*Ocimum basilicum*	L.	Lamiaceae
Abotian	Bariba	*Ocimum sp.*		Lamiaceae
Aboualènan	Gourmantché	*Portulaca oleracea*	L.	Portulacaceae
Aboutchan	Ifè	*Solanum aethiopicum*	L.	Solanaceae
Aburokuseri	Bariba	*Heliotropium indicum*	L.	Boraginaceae
Achoukpa	Holly	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Adaca	Ifè	*Vernonia amygdalina*	Delile	Asteraceae
Adakatin	Cotafon	*Entada africana*	Guill. & Perr.	Leguminosae-Mimosoideae
Adannou	Cotafon	*Synedrella nodiflora*	(L.) Gaertn.	Asteraceae
Adéfò	Otammari	*Amaranthus cruentus*	L.	Amaranthaceae
Adéfò	Otammari	*Celosia argentea*	L.	Amaranthaceae
Adègbola	Kotokoli	*Grewia cissoides*	Hutch. & Dalziel	Tiliaceae
Ademe	Cotafon	*Corchorus olitorius*	L.	Tiliaceae
Adjagboman	Mahi	*Solanum americanum*	Mill.	Solanaceae
Adjagoun	Idatcha	*Manihot esculenta*	Crantz	Euphorbiaceae
Adjagu	Mahi	*Manihot esculenta*	Crantz	Euphorbiaceae
Adjagulu	Tchabè	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Adjangou	Idatcha	*Manihot esculenta*	Crantz	Euphorbiaceae
Adjan'gulu	Tchabè	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Adjankpi	Aizo	*Chrysanthellum*	DC.	Asteraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		indicum		
Adjèfè	Ifè	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Adjèlè	Ifè	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Adjèmanwofoo	Tchabè	*Celosia trigyna*	L.	Amaranthaceae
Adjèmanwofoo	Idatcha	*Celosia trigyna*	L.	Amaranthaceae
Adjobodo	Tchabè	*Celosia argentea*	L.	Amaranthaceae
Adjogodo	Ifè	*Amaranthus cruentus*	L.	Amaranthaceae
Adondon	Bariba	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Adoukoigbo	Holly	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Adubadu	Anii	*Carica papaya*	L.	Caricaceae
Aféfokenka	Anii	*Celosia argentea*	L.	Amaranthaceae
Afobokpaba	Gourmantché	*Portulaca oleracea*	L.	Portulacaceae
Afonnu	Bariba	*Amaranthus cruentus*	L.	Amaranthaceae
Afonnu	Bariba	*Celosia argentea*	L.	Amaranthaceae
Afonnussouan	Bariba	*Celosia argentea*	L.	Amaranthaceae
Agariyana	Gourmantché	*Cleome rutidosperma*	DC.	Capparaceae
Agatoun	Holly	*Chromolaena odorata*	(L.) R. M. King	Asteraceae
Agbankpèdè	Fon	*Hallea stipulosa*	(DC.) J.-F.Leroy	Rubiaceae
Agbaouforo	Ifè	*Ficus sp.*		Moraceae
Agbèdè	Tchabè	*Ficus abutilifolia*	(Miq.) Miq.	Moraceae
Agbitchan	Mahi	*Solanum aethiopicum*	L.	Solanaceae
Agblele	Aizo	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Agblo	Aizo	*Sesamum radiatum*	Schumach.& Thonn.	Pedaliaceae
Agblonave	Aizo	*Vernonia ambigua*	Kotschy & Peyr.	Asteraceae
Agblossi	Aizo	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Agbo	Idatcha	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Agbo	Mahi	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Agbo	Mahi	*Sesamum indicum*	L.	Pedaliaceae
Agbon	Adja	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Agbon	Adja	*Sesamum radiatum*	Schumach.& Thonn.	Pedaliaceae
Agbossouwanlui	Cotafon	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae

Local Name	Linguistic group	Scientific name	Authorship	Family
Agnagna	Mahi	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Agni	Tchabè	*Anogeissus leiocarpus*	(DC.) Guill. & Perr.	Combretaceae
Agnigbandjowelo	Cotafon	*Amaranthus viridis*	L.	Amaranthaceae
Agonlinninnu	Fon	*Corchorus sp.*		Tiliaceae
Agouagnanan	Gourmantché	*Hibiscus sabdariffa*	L.	Malvaceae
Agouè	Oueme	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Agougou	Idatcha	*Ceiba pentandra*	(L.) Gaertn.	Bombacaceae
Agoulasala	Kotokoli	*Detarium microcarpum*	Guill. & Perr.	Leguminosae-Caesalpinioideae
Aguidi	Holly	*Cucurbita moschata*	Duchesne	Cucurbitaceae
Aguidi	Holly	*Cucurbita pepo*	L.	Cucurbitaceae
Aguidigbèdjè	Idatcha	*Cucurbita pepo*	L.	Cucurbitaceae
Agunmonliyé	Tchabè	*Moringa oleIfêra*	Lam.	Moringaceae
Agusi	Bariba	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Agusi	Holly	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Agusi	Gourmantché	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Agutchan	Fon	*Solanum aethiopicum*	L.	Solanaceae
Ahokponou	Cotafon	*Eclipta prostrata*	(L.) L.	Asteraceae
Aiya	Mahi	*Cleome rutidosperma*	DC.	Capparaceae
Akanman Kodjèkpo	Ifè	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Akanmanku	Fon	*Sesamum indicum*	L.	Pedaliaceae
Akaya	Ifè	*Cleome gynandra*	L.	Capparaceae
Akaya	Mahi	*Cleome gynandra*	L.	Capparaceae
Akaya	Fon	*Cleome gynandra*	L.	Capparaceae
Akèman	Idatcha	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Akémonkodjèékpo	Idatcha	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Akémonkodjèékpo	Ifè	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Akémonkodjèékpo	Tchabè	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Aklakui	Fon	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Aklala	Mahi	*Lippia multiflora*	Moldenke	Verbenaceae
Aklamkpa Kakun	Mahi	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Akluibugula	Gourmantché	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Akobobogo	Fon	*Emilia sonchifolia*	(L.) DC. Ex Wight	Asteraceae
Akogbo	Aizo	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Akogbo	Cotafon	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Akogbo	Fon	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Akogbo	Mahi	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Akohun	Idatcha	*Ocimum basilicum*	L.	Lamiaceae
Akohun	Mahi	*Ocimum basilicum*	L.	Lamiaceae
Akohun	Aizo	*Ocimum basilicum*	L.	Lamiaceae
Akohun	Fon	*Ocimum americanum*	L.	Lamiaceae
Akohun	Mahi	*Ocimum americanum*	L.	Lamiaceae
Akolohuntanko	Anii	*Hibiscus sabdariffa*	L.	Malvaceae
Akon	Holly	*Vitex doniana*	Sweet	Verbenaceae
Akouéta	Oueme	*Heliotropium indicum*	L.	Boraginaceae
Akoussimekpe	Holly	*Asystasia gangetica*	(L.) T. Anderson	Acanthaceae
Akpatin	Idatcha	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Akpignikokonan	Gourmantché	*Amaranthus spinosus*	L.	Amaranthaceae
Aku	Tchabè	*Vitex doniana*	Sweet	Verbenaceae
Akumanlakpa	Idatcha	*Vitex doniana*	Sweet	Verbenaceae
Akunbo	Anii	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Alakalakafiana	Gourmantché	*Boerhavia erecta*	L.	Nyctaginaceae
Alanlin	Mahi	*Corchorus tridens*	L.	Tiliaceae
Alatotwe	Aizo	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Aléchou	Ifè	*Vernonia sp.*		Asteraceae
Aléfo	Kotokoli	*Amaranthus cruentus*	L.	Amaranthaceae
Aléfo	Anii	*Amaranthus cruentus*	L.	Amaranthaceae
Aléfo	Dendi	*Amaranthus viridis*	L.	Amaranthaceae
Aléfo	Kotokoli	*Celosia argentea*	L.	Amaranthaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Aléfo	Anii	*Celosia argentea*	L.	Amaranthaceae
Aléfo	Dendi	*Celosia argentea*	L.	Amaranthaceae
Aléfo	Anii	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Aléfo	Otammari	*Celosia argentea*	L.	Amaranthaceae
Aléfo	Otammari	*Amaranthus sp.*		Amaranthaceae
Alingbowounkoun	Cotafon	*Deinbollia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Aloman	Cotafon	*Vernonia amygdalina*	Delile	Asteraceae
Aloman	Aizo	*Vernonia amygdalina*	Delile	Asteraceae
Aloman	Fon	*Vernonia amygdalina*	Delile	Asteraceae
Aloman	Mahi	*Vernonia amygdalina*	Delile	Asteraceae
Alomangbo	Oueme	*Vernonia amygdalina*	Delile	Asteraceae
Alouloui	Oueme	*Melochia corchorifolia*	L.	Sterculiaceae
Aloviatoon	Oueme	*Croton lobatus*	L.	Euphorbiaceae
Aluohunkonnan	Gourmantché	*Solanum eriathum*	D.Don	Solanaceae
Amanvivè	Aizo	*Vernonia amygdalina*	Delile	Asteraceae
Amanvivè	Fon	*Vernonia amygdalina*	Delile	Asteraceae
Am'baba	Holly	*Ocimum gratissimum*	L.	Lamiaceae
Am'baba	Holly	*Ocimum gratissimum*	L.	Lamiaceae
Amélikaka	Anii	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Anoukoro	Holly	*Vernonia amygdalina*	Delile	Asteraceae
Anroubaba	Holly	*Ocimum gratissimum*	L.	Lamiaceae
Anuko	Holly	*Vernonia amygdalina*	Delile	Asteraceae
Anuwin	Bariba	*Corchorus aestuans*	L.	Tiliaceae
Aribara	Idatcha	*Ocimum gratissimum*	L.	Lamiaceae
Arigbisso	Ifè	*Phyllanthus amarus*	Schumach.& Thonn.	Euphorbiaceae
Arikoro	Idatcha	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Arikoro	Ifè	*Vernonia sp.*		Asteraceae
Aroman	Idatcha	*Vernonia amygdalina*	Delile	Asteraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Aroman	Ifè	*Vernonia amygdalina*	Delile	Asteraceae
Aroowotchè	Idatcha	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Arounbam'ba	Ifè	*Ocimum gratissimum*	L.	Lamiaceae
Arumonba	Ifè	*Ocimum gratissimum*	L.	Lamiaceae
Asro	Fon	*Irvingia gabonensis*	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Asro	Mahi	*Irvingia gabonensis*	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Asrokui	Fon	*Irvingia gabonensis*	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Assan	Fon	*Cissus populnea*	Guill. & Perr.	Vitaceae
Assan	Mahi	*Cissus populnea*	Guill. & Perr.	Vitaceae
Atakpètakpè	Mahi	*Securidaca longepedunculata*	Fresen.	Polygalaceae
Atapòra	Otammari	*Solanum sp.*		Solanaceae
Atchakabo	Anii	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Atchélekman	Anii	*Asystasia gangetica*	(L.) T. Anderson	Acanthaceae
Atchélikan	Anii	*Asystasia gangetica*	(L.) T. Anderson	Acanthaceae
Atchiwilibenan	Anii	*Basilicum polystachyon*	(L.) Moench.	Lamiaceae
Atihadji	Aizo	*Manihot esculenta*	Crantz	Euphorbiaceae
Atiwe	Cotafon	*Triplochiton scleroxylon*	K.Schum.	Sterculiaceae
Atoo	Holly	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Atooilè	Holly	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Atukuluesuan	Anii	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Avlounvé	Oueme	*Celosia argentea*	L.	Amaranthaceae
Avognanman	Oueme	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Avousigan	Mahi	*Celosia sp.*		Amaranthaceae
Avunvo	Cotafon	*Celosia argentea*	L.	Amaranthaceae
Avunvo	Mahi	*Celosia argentea*	L.	Amaranthaceae
Awontimefoun	Cotafon	*Passiflora foetida*	L.	Passifloraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Awonto	Cotafon	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Awoundjagbe	Cotafon	*Amaranthus spinosus*	L.	Amaranthaceae
Axha	Mahi	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Axha	Fon	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Axhuassamandjè	Fon	*Acalypha ciliata*	Forssk.	Euphorbiaceae
Ayahuènu	Fon	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Ayawenou	Aizo	*Senna sophera*	(L.) Roxb.	Leguminosae-Caesalpinioideae
Ayikun	Mahi	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayiman	Adja	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayiman	Cotafon	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayiman	Aizo	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayiman	Fon	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayiman	Mahi	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayiman	Oueme	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ayinkpinnan	Gourmantché	*Amaranthus cruentus*	L.	Amaranthaceae
Ayinkpinnan	Gourmantché	*Amaranthus spinosus*	L.	Amaranthaceae
Ayinkpinnan	Gourmantché	*Celosia argentea*	L.	Amaranthaceae
Ayinyèrè	Ifè	*Moringa oleifera*	Lam.	Moringaceae
Ayodogo	Aizo	*Amaranthus viridis*	L.	Amaranthaceae
Ayoyo	Anii	*Corchorus olitorius*	L.	Tiliaceae
Ayoyo	Ifè	*Corchorus olitorius*	L.	Tiliaceae
Ayoyo	Kotokoli	*Corchorus olitorius*	L.	Tiliaceae
Ayoyo	Dendi	*Corchorus olitorius*	L.	Tiliaceae
Azataluga	Aizo	*Corchorus olitorius*	L.	Tiliaceae
Azataluga	Fon	*Corchorus tridens*	L.	Tiliaceae
Azataluga	Mahi	*Corchorus tridens*	L.	Tiliaceae
Aziguidigokui	Aizo	*Macrosphyra longistyla*	(DC.) Hiern	Rubiaceae
Aziokeke	Aizo	*Cola millenii*	K.Schum.	Sterculiaceae
Azohan	Aizo	*Cucumeropsis*	Naud	Cucurbitaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		mannii		
Azokunman	Aizo	*Rothmannia longiflora*	Salisb.	Rubiaceae
Azonhongogoé	Cotafon	*Macrosphyra longistyla*	(DC.) Hiern	Rubiaceae
Azuigbe	Cotafon	*Tridax procumbens*	L.	Asteraceae
Babanon	Waama	*Solanum sp.*		Solanaceae
Babarifaatu	Waama	*Solanum sp.*		Solanaceae
Bahatogo	Bariba	*Annona senegalensis*	Pers.	Annonaceae
Bako	Kotokoli	*Piliostigma thonningii*	(Schumach.) Milne-Redh.	Leguminosae-Caesalpinioideae
Balabalodè	Kotokoli	*Burkea africana*	Hook.	Leguminosae-Caesalpinioideae
Banan	Anii	*Corchorus olitorius*	L.	Tiliaceae
Ban'ctchi	Kotokoli	*Manihot glaziovii*	Müll.Arg.	Euphorbiaceae
Bangani	Kotokoli	*Xanthosoma maffafa*	Schott	Araceae
Banho	Bariba	*Opilia amentacea*	Roxb.	Opiliaceae
Baountchi	Ifè	*Manihot esculenta*	Crantz	Euphorbiaceae
Baratoko	Bariba	*Annona senegalensis*	Pers.	Annonaceae
Barichiri	Dendi	*Acalypha ciliata*	Forssk.	Euphorbiaceae
Baroman	Waama	*Momordica charantia*	L.	Cucurbitaceae
Batamaé	Dendi	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Batokowurusu	Bariba	*Annona senegalensis*	Pers.	Annonaceae
Bawokonan	Boko	*Boerhavia erecta*	L.	Nyctaginaceae
Bawounna	Anii	*Corchorus olitorius*	L.	Tiliaceae
Bawounnaguimanhannin	Anii	*Corchorus tridens*	L.	Tiliaceae
Bèbèèyabu	Waama	*Launaea nudicaulis*	(L.) Hook.f.	Asteraceae
Bèbiré	Waama	*Gardenia sp.*		Rubiaceae
Béhountché	Kotokoli	*Manihot esculenta*	Crantz	Euphorbiaceae
Benkéni	Anii	*Xanthosoma maffafa*	Schott	Araceae
Bentchi	Anii	*Manihot esculenta*	Crantz	Euphorbiaceae
Béyintchi	Anii	*Manihot esculenta*	Crantz	Euphorbiaceae
Bigbèmbèrè	Kotokoli	*Hibiscus sabdariffa*	L.	Malvaceae
Blaa	Boko	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Blaca	Fon	*Hexalobus monopetalus*	(A.Rich)	Annonaceae
Blaokona	Boko	*Boerhavia diffusa*	L.	Nyctaginaceae
Bloala	Boko	*Cyphostemma adenocaule*	(Steud.) Desc.	Vitaceae

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Bobo	Boko	*Solanum macrocarpon*	L.	Solanaceae
Bobobobo	Anii	*Physalis angulata*	L.	Solanaceae
Boboyo	Anii	*Bidens pilosa*	L.	Asteraceae
Bogobogo	Anii	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Bokangala	Anii	*Anogeissus leiocarpa*	(DC.) Guill. & Perr.	Combretaceae
Bokoboko	Anii	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Bokoïkossou	Dendi	*Vitex doniana*	Sweet	Verbenaceae
Bola	Kotokoli	*Fadogia erythrophloea*	(K.Schum. & K.Krause) Hutch. & Dalziel	Rubiaceae
Bola	Kotokoli	*Grewia mollis*	Juss.	Tiliaceae
Bolo	Adja	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Bonakpanbo	Gourmantché	*Afzelia africana*	Sm.	Leguminosae-Caesalpinioideae
Bonourégou	Bariba	*Ocimum basilicum*	L.	Lamiaceae
Bonourékou	Bariba	*Ocimum basilicum*	L.	Lamiaceae
Bonourogou	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Bootaman	Waama	*Hibiscus asper*	Hook.f.	Malvaceae
Boroumènou	Kotokoli	*Cnestis ferruginea*	Vahl ex DC.	Connaraceae
Bossaman	Mahi	*Celosia sp.*		Amaranthaceae
Boufobou	Gourmantché	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Boukamkambou	Gourmantché	*Ficus thonningii*	Blume	Moraceae
Boulangakassi	Dendi	*Tapinanthus sp.*		Loranthaceae
Bouloubouli	Gourmantché	*Moringa oleifera*	Lam.	Moringaceae
Boupoukanbou	Gourmantché	*Ceiba pentandra*	(L.) Gaertn.	Bombacaceae
Bourgbèmèrè	Kotokoli	*Melastomastrum segregatum*	(Benth.) A.&R.Fern.	Melastomataceae
Bousamsambou	Gourmantché	*Celtis toka*	(Forssk.) Hepper & J.R.I. Wood	Celtidaceae
Bueru	Bariba	*Afraegle paniculata*	(Schumach.& Thonn.)	Rutaceae
Bufuobu	Gourmantché	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Bugnanbu	Gourmantché	*Vitex doniana*	Sweet	Verbenaceae
Bukankanbu	Gourmantché	*Ficus ingens*	(Miq.) Miq.	Moraceae
Bunasoobu	Gourmantché	*Gardenia sp.*		Rubiaceae
Bupugumbu	Gourmantché	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae

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Bupuobu	Gourmantché	*Tamarindus indica*	L.	Leguminosae-Caesalpinioideae
Busoron'bu	Waama	*Cochlospermum planchoni*	Hook.f.	Cochlospermaceae
Busoron'bu	Waama	*Cochlospermum tinctorium*	A.Rich.	Cochlospermaceae
Butuobu	Gourmantché	*Adansonia digitata*	L.	Bombacaceae
Cacaacra	Idatcha	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Canwun	Idatcha	*Lippia multiflora*	Moldenke	Verbenaceae
Celiman	Aizo	*Moringa oleifera*	Lam.	Moringaceae
Chanmndidoue	Cotafon	*Ocimum gratissimum*	L.	Lamiaceae
Chanmndidoue	Aizo	*Ocimum gratissimum*	L.	Lamiaceae
Chlochlodin	Cotafon	*Heliotropium indicum*	L.	Boraginaceae
Chyiao	Aizo	*Ocimum gratissimum*	L.	Lamiaceae
Coclossoudinkpatcha	Aizo	*Heliotropium indicum*	L.	Boraginaceae
Coclossoudinkpatcha	Mahi	*Heliotropium indicum*	L.	Boraginaceae
Cooko	Anii	*Colocasia esculenta*	(L.) Schott	Araceae
Daboukonkondi	Gourmantché	*Amaranthus spinosus*	L.	Amaranthaceae
Dadohissirè	Mahi	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Dagba	Mahi	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Damandafitin	Aizo	*Deinbollia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Damando	Kotokoli	*Swartzia madagascariensis*	Desv.	Leguminosae-Papilionoideae
Damandodjè	Oueme	*Justicia anselliana*	(Ness)	Acanthaceae
Damandodjè	Aizo	*Justicia anselliana*	(Ness)	Acanthaceae
Danbakaru	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Darouafounou	Bariba	*Hydrolea macrosepala*	A.W.	Hydrophyllaceae
Dègbodi	Aizo	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Dèhouiman	Mahi	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Déhounkan	Oueme	*Portulaca oleracea*	L.	Portulacaceae
Demi	Adja	*Corchorus olitorius*	L.	Tiliaceae
Dêmin	Cotafon	*Corchorus olitorius*	L.	Tiliaceae

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Dêminvê	Cotafon	*Corchorus olitorius*	L.	Tiliaceae
Dendèlè	Kotokoli	*Ricinus communis*	L.	Euphorbiaceae
Deyouman	Aizo	*Asystasia gangetica*	(L.) T. Anderson	Acanthaceae
Digbèmèrè	Kotokoli	*Hibiscus sabdariffa*	L.	Malvaceae
Dipeeri	Otammari	*Cucurbita pepo*	L.	Cucurbitaceae
Direm	Bariba	*Blighia sapida*	König	Sapindaceae
Dirénou	Bariba	*Blighia sapida*	König	Sapindaceae
Diyua'ndi	Otammari	*Cissus populnea*	Guill. & Perr.	Vitaceae
Djadjagoun	Gourmantché	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Djagounmanlakpa	Ifè	*Vitex doniana*	Sweet	Verbenaceae
Djagudjagu	Ifè	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Djagudjagu	Tchabè	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Djagumanlakpa	Ifè	*Vitex doniana*	Sweet	Verbenaceae
Djakpatagbe	Cotafon	*Tridax procumbens*	L.	Asteraceae
Djankoui	Adja	*Bidens pilosa*	L.	Asteraceae
Djawawa	Idatcha	*Cissus populnea*	Guill. & Perr.	Vitaceae
Djendjé	Holly	*Celosia trigyna*	L.	Amaranthaceae
Djén'djé	Holly	*Cleome gynandra*	L.	Capparaceae
Djetandoye	Holly	*Alternanthera brasiliana*	(L.) Kuntze	Amaranthaceae
Djètinman	Fon	*Chassalia kolly*	(Schumach.) Hepper	Rubiaceae
Djindje	Holly	*Celosia trigyna*	L.	Amaranthaceae
Djirèbou	Bariba	*Blighia sapida*	König	Sapindaceae
Djogbolo	Mahi	*Celosia argentea*	L.	Amaranthaceae
Djogodo	Idatcha	*Corchorus tridens*	L.	Tiliaceae
Djomankougbédé	Oueme	*Basella alba*	L.	Basellaceae
Dodo Ikpokpo	Holly	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Dofoukela	Boko	*Ipomoea sp.*		Convolvulaceae
Dogbiwo	Aizo	*Xanthosoma maffafa*	Schott	Araceae
Dogbo	Cotafon	*Laportea aestuans*	(L.) Chew	Urticaceae
Dogo	Bariba	*Manihot esculenta*	Crantz	Euphorbiaceae
Dohoungbaana	Boko	*Sesamum indicum*	L.	Pedaliaceae
Dokui	Mahi	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Domp	Bariba	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Donbukohundu	Bariba	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Donwada	Fon	*Adenia lobata*	(Jacq.) Engl.	Passifloraceae
Doobu	Waama	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae

Local Name	Linguistic group	Scientific name	Authorship	Family
Doogo	Bariba	*Manihot esculenta*	Crantz	Euphorbiaceae
Dopua	Boko	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Dorontouan	Bariba	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Dossé	Tchabè	*Sesamum sp.*		Pedaliaceae
Dossi	Bariba	*Sesamum radiatum*	Schumach.& Thonn.	Pedaliaceae
Dossi	Boko	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Dossi	Bariba	*Sesamum indicum*	L.	Pedaliaceae
Dossila	Boko	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Dosso	Mahi	*Combretum collinum*	Fresen	Combretaceae
Dougba	Cotafon	*Senna sophera*	(L.) Roxb.	Leguminosae-Caesalpinioideae
Doulou	Kotokoli	*Entada africana*	Guill. & Perr.	Leguminosae-Mimosoideae
Doundoutchili	Dendi	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Drele	Adja	*Moringa oleifera*	Lam.	Moringaceae
Eayetailler	Holly	*Croton lobatus*	L.	Euphorbiaceae
Ecola	Kotokoli	*Salacia sp.*		Celastraceae
Eéwo	Tchabè	*Vernonia amygdalina*	Delile	Asteraceae
Effoignanri	Holly	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Effooko	Holly	*Cleome gynandra*	L.	Capparaceae
Efo	Boko	*Amaranthus cruentus*	L.	Amaranthaceae
Efo	Idatcha	*Cleome gynandra*	L.	Capparaceae
Efo	Holly	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Efo Docteur	Tchabè	*Amaranthus cruentus*	L.	Amaranthaceae
Efo/Aléfo	Anii	*Celosia argentea*	L.	Amaranthaceae
Efun	Ifè	*Cleome gynandra*	L.	Capparaceae
Eguèkè	Mahi	*Manihot esculenta*	Crantz	Euphorbiaceae
Egusi Accra	Tchabè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Egusi Bara	Tchabè	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Egusi Ilè	Tchabè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Egusi Itoo	Tchabè	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Egusi Kaka	Tchabè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Egusi Ougba	Tchabè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Eiyo	Holly	*Corchorus tridens*	L.	Tiliaceae
Eléguédé	Tchabè	*Cucurbita maxima*	Duchesne	Cucurbitaceae
Eminnin	Holly	*Ipomoea aquatica*	Forssk.	Convolvulaceae
Eminninodo	Holly	*Ipomoea aquatica*	Forssk.	Convolvulaceae
Episséwé	Anii	*Conyza sumatrensis*	(Retz.) E.H.Walker	Asteraceae
Eriere	Holly	*Spigelia anthelmia*	L.	Loganiaceae
Esidakika	Anii	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Essèdakaka	Anii	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Etayi	Holly	*Cleome rutidosperma*	DC.	Capparaceae
Etiologbo	Holly	*Emilia praetermissa*	Milne-Rredh.	Asteraceae
Etiologbo	Holly	*Emilia sonchifolia*	(L.) DC. Ex Wight	Asteraceae
Evoun	Adja	*Ficus asperifolia*	Miq.	Moraceae
Ewa	Idatcha	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ewa	Tchabè	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ewa	Holly	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ewe Eleguede	Holly	*Cucurbita pepo*	L.	Cucurbitaceae
Ewe Iroun	Holly	*Ocimum basilicum*	L.	Lamiaceae
Ewe Kpaki	Holly	*Manihot esculenta*	Crantz	Euphorbiaceae
Ewe Orou	Holly	*Croton lobatus*	L.	Euphorbiaceae
Ewedoki Ou Eminnin	Holly	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Ewèèwa	Holly	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Ewegoussi	Holly	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Ewèidokui	Holly	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Ewéidou	Holly	*Solanum americanum*	Mill.	Solanaceae
Eweikoko	Holly	*Xanthosoma maffafa*	Schott	Araceae
Eweila	Holly	*Abelmoschus*	(L.) Moench.	Malvaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		esculentus		
Eyitayi	Holly	*Cleome rutidosperma*	DC.	Capparaceae
Eyo	Holly	*Corchorus olitorius*	L.	Tiliaceae
Eyo Aguidan	Holly	*Corchorus tridens*	L.	Tiliaceae
Eyogbè	Ifè	*Corchorus sp.*		Tiliaceae
Eyouro	Holly	*Vernonia amygdalina*	Delile	Asteraceae
Faczao	Kotokoli	*Psorospermum febrifugum*	Spach	Clusiaceae
Fakou	Dendi	*Corchorus tridens*	L.	Tiliaceae
Fakou	Dendi	*Corchorus tridens*	L.	Tiliaceae
Fannan	Kotokoli	*Ochna schweinfurthiana*	F. Hoffm.	Ochnaceae
Fèèman	Waama	*Corchorus sp.*		Tiliaceae
Fèèman	Waama	*Corchorus tridens*	L.	Tiliaceae
Fééokuta	Tchabè	*Ocimum canum*	L.	Lamiaceae
Feigniman	Oueme	*Manihot esculenta*	Crantz	Euphorbiaceae
Feignin	Mahi	*Manihot esculenta*	Crantz	Euphorbiaceae
Fetri	Adja	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Feuyito	Dendi	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Févi	Aizo	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Févi	Fon	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Févi	Mahi	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Féviman	Oueme	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Féviman	Aizo	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Fingninman	Aizo	*Manihot esculenta*	Crantz	Euphorbiaceae
Finyin	Fon	*Manihot esculenta*	Crantz	Euphorbiaceae
Flefitchi	Adja	*Deinbollia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Fodibembèrè	Kotokoli	*Hibiscus asper*	Hook.f.	Malvaceae
Fodou	Bariba	*Sterculia setigera*	Delile	Sterculiaceae
Foïbi	Dendi	*Solanum americanum*	Mill.	Solanaceae
Fokiwonfatu	Waama	*Manihot esculenta*	Crantz	Euphorbiaceae
Fola	Kotokoli	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Fonkouman	Adja	*Vitex doniana*	Sweet	Verbenaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Fonla	Boko	*Adansonia digitata*	L.	Bombacaceae
Fonman	Cotafon	*Vitex doniana*	Sweet	Verbenaceae
Fonman	Aizo	*Vitex doniana*	Sweet	Verbenaceae
Fonman	Fon	*Vitex doniana*	Sweet	Verbenaceae
Fonman	Mahi	*Vitex doniana*	Sweet	Verbenaceae
Fonman	Oueme	*Vitex doniana*	Sweet	Verbenaceae
Fontin	Fon	*Vitex doniana*	Sweet	Verbenaceae
Fontin	Mahi	*Vitex doniana*	Sweet	Verbenaceae
Fôodou	Bariba	*Sterculia setigera*	Delile	Sterculiaceae
Fookubu	Waama	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Foroukpètè	Anii	*Basella alba*	L.	Basellaceae
Forowontèma	Waama	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Fotete	Aizo	*Amaranthus cruentus*	L.	Amaranthaceae
Fotètè	Fon	*Amaranthus cruentus*	L.	Amaranthaceae
Fotètè	Idatcha	*Amaranthus cruentus*	L.	Amaranthaceae
Fotètè	Mahi	*Amaranthus cruentus*	L.	Amaranthaceae
Fotêtê	Cotafon	*Amaranthus cruentus*	L.	Amaranthaceae
Fotêtêvovo	Cotafon	*Celosia argentea*	L.	Amaranthaceae
Fouadobaga	Bariba	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Fouadobagarou	Bariba	*Cassytha filiformis*	L.	Lauraceae
Foulbé	Dendi	*Cleome gynandra*	L.	Capparaceae
Founkounman	Adja	*Vitex doniana*	Sweet	Verbenaceae
Fraké	Holly	*Terminalia superba*	Engl. & Diels	Combretaceae
Frou	Kotokoli	*Ficus asperifolia*	Miq.	Moraceae
Fufurubo	Anii	*Ageratum conizoides*	L.	Asteraceae
Gaboboé	Anii	*Physalis minima*	L.	Solanaceae
Gadjèkpo	Anii	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Gafitire	Anii	*Ocimum sp.*		Lamiaceae
Gagalouaga	Cotafon	*Corchorus tridens*	L.	Tiliaceae
Gahuaman	Mahi	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Gakakao	Anii	*Strychnos spinosa*	Lam.	Loganiaceae
Gakolo	Anii	*Momordica foetida*	Schumach.	Cucurbitaceae
Gakolugawandja	Anii	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Gakpélékpélé	Anii	*Secamone afzelii*	(Schult.) K. Schum.	Asclepiadaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Ganapèn'ta	Anii	*Ipomoea vagans*	Baker	Convolvulaceae
Ganbaaga	Gourmantché	*Moringa oleifera*	Lam.	Moringaceae
Gandafoï	Dendi	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Gangan	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ganganhoun	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Gangansikénou	Bariba	*Boerhavia diffusa*	L.	Nyctaginaceae
Gangassigourou	Bariba	*Boerhavia diffusa*	L.	Nyctaginaceae
Gankonnoukou	Bariba	*Ficus sycomorus*	L.	Moraceae
Gannou	Bariba	*Ficus sp.*		Moraceae
Ganxwa	Cotafon	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Gaou Guininman	Dendi	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Gapèpè	Anii	*Gardenia sp.*		Rubiaceae
Garibé	Dendi	*Balanites aegyptiaca*	(L.) Delile	Zygophyllaceae
Garsia	Bariba	*Cleome gynandra*	L.	Capparaceae
Garsia	Waama	*Cleome gynandra*	L.	Capparaceae
Gasakman	Anii	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Gasiala	Boko	*Celosia argentea*	L.	Amaranthaceae
Gasokinmè	Anii	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Gassaman	Dendi	*Ocimum gratissimum*	L.	Lamiaceae
Gassia	Boko	*Amaranthus cruentus*	L.	Amaranthaceae
Gassia	Bariba	*Celosia argentea*	L.	Amaranthaceae
Gassira	Bariba	*Amaranthus viridis*	L.	Amaranthaceae
Gatongaboi	Anii	*Adansonia digitata*	L.	Bombacaceae
Gbahounkeki	Adja	*Ipomoea triloba*	L.	Convolvulaceae
Gbahounkeki	Adja	*Pergularia daemia*	(Forssk.) Chiov.	Asclepiadaceae
Gbaka	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Gbannan	Anii	*Corchorus olitorius*	L.	Tiliaceae
Gbanro	Bariba	*Opilia amentacea*	Roxb.	Opiliaceae
Gbatchi	Ifè	*Manihot esculenta*	Crantz	Euphorbiaceae
Gbèa	Boko	*Manihot esculenta*	Crantz	Euphorbiaceae
Gbeala	Boko	*Manihot esculenta*	Crantz	Euphorbiaceae
Gbèba	Bariba	*Canavalia ensiformis*	(L.) DC.	Leguminosae-Papilionoideae
Gbebu	Bariba	*Afzelia africana*	Sm.	Leguminosae-Caesalpinioideae

Local Name	Linguistic group	Scientific name	Authorship	Family
Gbégnamin	Mahi	*Solanum aethiopicum*	L.	Solanaceae
Gbèhè	Bariba	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Gbele	Aizo	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Gbéman	Kotokoli	*Solanum macrocarpon*	L.	Solanaceae
Gbéman	Anii	*Solanum macrocarpon*	L.	Solanaceae
Gbéou	Bariba	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Gbèrékoundou	Kotokoli	*Hexalobus monopetalus*	(A.Rich)	Annonaceae
Gbessabo	Adja	*Cleome rutidosperma*	DC.	Capparaceae
Gbessenou	Bariba	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Gbesseru	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Gbéssouan	Bariba	*Maerua angolensis*	DC.	Capparaceae
Gbetokaya	Cotafon	*Cleome rutidosperma*	DC.	Capparaceae
Gbétu	Tchabè	*Cochlospermum planchoni*	Hook.f.	Cochlospermaceae
Gbii	Boko	*Triplochiton scleroxylon*	K.Schum.	Sterculiaceae
Gbissan	Aizo	*Solanum aethiopicum*	L.	Solanaceae
Gblé	Fon	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Gblegbe	Adja	*Amaranthus viridis*	L.	Amaranthaceae
Gblo	Aizo	*Crassocephalum crepidiodes*	(Benth.) S.Moore	Asteraceae
Gblo	Oueme	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Gbo	Mahi	*Solanum aethiopicum*	L.	Solanaceae
Gbodo	Holly	*Solanum macrocarpon*	L.	Solanaceae
Gbodoglin/Tchiayo	Fon	*Ocimum gratissimum*	L.	Lamiaceae
Gbodoku	Holly	*Solanum macrocarpon*	L.	Solanaceae
Gbodoognibo	Holly	*Solanum macrocarpon*	L.	Solanaceae
Gbofu	Anii	*Momordica cissoides*	Planch.ex Benth.	Cucurbitaceae

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Gbofusoro	Anii	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Gbogbogui	Adja	*Ipomoea triloba*	L.	Convolvulaceae
Gbogboloki	Idatcha	*Basella alba*	L.	Basellaceae
Gbogodo	Tchabè	*Solanum sp.*		Solanaceae
Gbogolo	Anii	*Cissus populnea*	Guill. & Perr.	Vitaceae
Gboholou	Aizo	*Amaranthus cruentus*	L.	Amaranthaceae
Gbokpodjè	Mahi	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Gbolo	Holly	*Crassocephalum crepidiodes*	(Benth.) S.Moore	Asteraceae
Gbolo	Tchabè	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Gbolo	Idatcha	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Gbolo	Holly	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Gboman	Adja	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Cotafon	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Aizo	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Fon	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Idatcha	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Mahi	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Tchabè	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Anii	*Solanum macrocarpon*	L.	Solanaceae
Gboman	Oueme	*Solanum macrocarpon*	L.	Solanaceae
Gbomanalatonnon	Mahi	*Solanum sp.*		Solanaceae
Gbonkèfru	Boko	*Celosia trigyna*	L.	Amaranthaceae
Gbonkèfula	Boko	*Celosia trigyna*	L.	Amaranthaceae
Gbonourékou	Bariba	*Ocimum basilicum*	L.	Lamiaceae
Gboo	Tchabè	*Cucurbita pepo*	L.	Cucurbitaceae
Gboro	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Gbotoé	Mahi	*Ipomoea sp.*		Convolvulaceae
Gbovo	Aizo	*Melochia corchorifolia*	L.	Sterculiaceae
Gboyame	Adja	*Solanum villosum*		Solanaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Gboyame	Cotafon	*Solanum villosum*		Solanaceae
Gboyi	Cotafon	*Solanum americanum*	Mill.	Solanaceae
Genandanu	Anii	*Eclipta prostrata*	(L.) L.	Asteraceae
Genandènin	Anii	*Struchium sparganophora*	L.	Asteraceae
Gidjenkalo	Anii	*Lippia multiflora*	Moldenke	Verbenaceae
Gikpayinpi	Anii	*Annona senegalensis*	Pers.	Annonaceae
Gikunu	Anii	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Girifoonon't	Anii	*Ageratum conizoides*	L.	Asteraceae
Gitchantchunpè	Anii	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Glassiman	Oueme	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Glassiman	Aizo	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Glassoue	Cotafon	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Glassueman	Aizo	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Glassuman	Mahi	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Glazuhoui	Adja	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Glegbofitin	Aizo	*Psychotria calva*	Hiern	Rubiaceae
Glin	Fon	*Colocasia esculenta*	(L.) Schott	Araceae
Glin	Mahi	*Colocasia esculenta*	(L.) Schott	Araceae
Glinman	Cotafon	*Xanthosoma maffafa*	Schott	Araceae
Glinman	Aizo	*Xanthosoma maffafa*	Schott	Araceae
Glinman	Oueme	*Xanthosoma maffafa*	Schott	Araceae
Gnagninou	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Gnambifan	Bariba	*Celosia trigyna*	L.	Amaranthaceae
Gnambinoufagarou	Bariba	*Celosia trigyna*	L.	Amaranthaceae
Gnandodou	Adja	*Ocimum gratissimum*	L.	Lamiaceae
Gnangba	Fon	*Hibiscus sabdariffa*	L.	Malvaceae
Gnangninon	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Gnangninou	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Gnangnon	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Gnankounougou	Bariba	*Vitex doniana*	Sweet	Verbenaceae
Gnannou	Bariba	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Gnanri	Holly	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Gnanrou	Bariba	*Vitex doniana*	Sweet	Verbenaceae
Gnanrougninou	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Gnianrou	Bariba	*Cucurbita maxima*	Duchesne	Cucurbitaceae
Gniman	Oueme	*Ethulia conyzoides*	L.f.	Asteraceae
Gningui	Bariba	*Corchorus tridens*	L.	Tiliaceae
Gninman	Oueme	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Gninmondu	Adja	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Gninmondu	Aizo	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Gninmondu	Fon	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Gninmondu	Fon	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Gnonsanou	Bariba	*Cissus populnea*	Guill. & Perr.	Vitaceae
Gobia	Bariba	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Goborobo	Anii	*Senna alata*	(L.) Roxb.	Leguminosae-Caesalpinioideae
Gofoundé	Anii	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Gofounnoutouré	Anii	*Ocimum basilicum*	L.	Lamiaceae
Gogohoun	Bariba	*Hybanthus enneaspermus*	(L.) F. Muell.	Violaceae
Gogokou	Bariba	*Hybanthus enneaspermus*	(L.) F. Muell.	Violaceae
Goho	Anii	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Goka	Anii	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Gokolo	Anii	*Hibiscus sabdariffa*	L.	Malvaceae
Golo	Tchabè	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Gomi	Adja	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Gommilu	Gourmantché	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Goratonou	Bariba	*Moringa oleifera*	Lam.	Moringaceae
Goré	Anii	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Goroumè	Anii	*Lippia multiflora*	Moldenke	Verbenaceae
Gosanafunu	Anii	*Sesamum indicum*	L.	Pedaliaceae
Gosassala	Anii	*Bridelia ferruginea*	Benth	Euphorbiaceae
Gotamta	Anii	*Physalis angulata*	L.	Solanaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Gotantara	Anii	*Solanum americanum*	Mill.	Solanaceae
Gotonbo	Anii	*Adansonia digitata*	L.	Bombacaceae
Goudélé	Anii	*Ficus vallis-choudae*	Delile	Moraceae
Goufoumon	Anii	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Goure Ou Ebede	Holly	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Gouroumon	Anii	*Lippia multiflora*	Moldenke	Verbenaceae
Gousouhounko	Anii	*Vernonia amygdalina*	Delile	Asteraceae
Gousounouko	Anii	*Vernonia amygdalina*	Delile	Asteraceae
Goussi	Aizo	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Goutchérimè	Anii	*Piliostigma thonningii*	(Schumach.) Milne-Redh.	Leguminosae-Caesalpinioideae
Goutelowè	Anii	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Goutessi	Anii	*Vitex doniana*	Sweet	Verbenaceae
Gouukalow	Anii	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Gubodjunon	Anii	*Chassalia kolly*	(Schumach.) Hepper	Rubiaceae
Gudjèmè	Anii	*Ocimum gratissimum*	L.	Lamiaceae
Guédéhounsou	Mahi	*Ceiba pentandra*	(L.) Gaertn.	Bombacaceae
Guédjékangara	Anii	*Hoslundia opposita*	Vahl	Lamiaceae
Guèfudiré	Anii	*Ocimum basilicum*	L.	Lamiaceae
Guéparagnepi	Anii	*Annona senegalensis*	Pers.	Annonaceae
Guérou	Bariba	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Guései	Anii	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Guétchibo	Anii	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Guéwé	Anii	*Paullinia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Gufunougutolo	Anii	*Sesamum indicum*	L.	Pedaliaceae
Guifokèla	Anii	*Combretum comosum var. hispidum*	G. Don var(M . Lawson) Jongkind	Combretaceae
Guigbanirè	Anii	*Annona senegalensis*	Pers.	Annonaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Guinédéné	Anii	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Guinnindanou	Anii	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Guinru	Bariba	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Guirihunbi	Anii	*Grewia mollis*	Juss.	Tiliaceae
Guissiman	Dendi	*Hibiscus sabdariffa*	L.	Malvaceae
Guitchaabo	Anii	*Lippia multiflora*	Moldenke	Verbenaceae
Guitohunkiwè	Anii	*Trema orientalis*	(L.) Blume	Celtidaceae
Guiwéguifonon	Anii	*Amaranthus cruentus*	L.	Amaranthaceae
Guiyobolo	Anii	*Afzelia africana*	Sm.	Leguminosae-Caesalpinioideae
Gukurutchibo	Anii	*Heliotropium indicum*	L.	Boraginaceae
Gulè	Anii	*Blighia sapida*	König	Sapindaceae
Gulèkahunbo	Anii	*Blighia sapida*	König	Sapindaceae
Gulubi	Ifè	*Platostoma africanum*	P. Beauv.	Lamiaceae
Guobole	Anii	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Guoô	Anii	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Gurumon	Anii	*Grewia mollis*	Juss.	Tiliaceae
Gushi	Adja	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Gushi	Adja	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Gusudonon	Anii	*Vitex doniana*	Sweet	Verbenaceae
Gusunko	Anii	*Vernonia amygdalina*	Delile	Asteraceae
Gutantaro	Anii	*Solanum americanum*	Mill.	Solanaceae
Gutesere	Anii	*Vitex doniana*	Sweet	Verbenaceae
Guwa	Anii	*Ceiba pentandra*	(L.) Gaertn.	Bombacaceae
Gwè	Mahi	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Handoukpo	Mahi	*Amaranthus dubius*	Mart. Ex Thell.	Amaranthaceae
Handoukpo	Mahi	*Amaranthus spinosus*	L.	Amaranthaceae
Hansihanga	Dendi	*Ipomoea vagans*	Baker	Convolvulaceae
Haoudénin	Dendi/ Djerma	*Portulaca oleracea*	L.	Portulacaceae
Hèdougbognin	Mahi	*Solanum sp.*		Solanaceae
Hlatchio	Aizo	*Hoslundia opposita*	Vahl	Lamiaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Hlinwéwé	Fon	*Phyllanthus amarus*	Schumach.& Thonn.	Euphorbiaceae
Hodokponou	Aizo	*Ethulia conyzoides*	L.f.	Asteraceae
Honbwe	Cotafon	*Ficus thonningii*	Blume	Moraceae
Hongbèdè	Cotafon	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Hongbèdè	Aizo	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Hongbèdè	Fon	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Honhogui	Mahi	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Honton-Azizuin	Cotafon	*Crateva adansonii*	DC.	Capparaceae
Honton-Azizuin	Aizo	*Crateva adansonii*	DC.	Capparaceae
Hossoudugble	Adja	*Acalypha ciliata*	Forssk.	Euphorbiaceae
Houédaman	Oueme	*Achyranthes aspera*	L.	Amaranthaceae
Houngbè	Aizo	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Houngogoé	Cotafon	*Afraegle paniculata*	(Schumach.& Thonn.)	Rutaceae
Huhualawé	Mahi	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Hunsimanvovo	Fon	*Vernonia cinerea*	(L.) Less.	Asteraceae
Hunsimanwéwé	Fon	*Vernonia cinerea*	(L.) Less.	Asteraceae
Ibalgi	Gourmantché	*Hibiscus sabdariffa*	L.	Malvaceae
Iboborimi	Anii	*Cochlospermum tinctorium*	A.Rich.	Cochlospermaceae
Ibonon	Anii	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Icencenpè	Anii	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Ichin	Holly	*Blighia sapida*	König	Sapindaceae
Idé	Holly	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Idjabo	Tchabè	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Idjabo	Idatcha	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Idoki	Holly	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Ifanyè	Otammari	*Corchorus tridens*	L.	Tiliaceae
Ifofonon	Anii	*Amaranthus cruentus*	L.	Amaranthaceae
Iforana	Anii	*Celosia argentea*	L.	Amaranthaceae
Igba	Holly	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Igba	Holly	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Igbam	Kotokoli	*Synaptolepis retusa*	H.H.W.Pearson	Thymelaeaceae
Igbéako	Tchabè	*Heliotropium indicum*	L.	Boraginaceae
Igboman	Ifè	*Solanum macrocarpon*	L.	Solanaceae
Ignin	Gourmantché	*Sesamum alatum*	Thonn.	Pedaliaceae
Ikan	Idatcha	*Solanum erianthum*	D.Don	Solanaceae
Ikin	Tchabè	*Solanum aethiopicum*	L.	Solanaceae
Ikoko	Holly	*Colocasia esculenta*	(L.) Schott	Araceae
Ikounnin	Anii	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ikpo	Anii	*Ocimum sp.*		Lamiaceae
Ila	Ifè	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ila	Tchabè	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ila	Idatcha	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ila	Holly	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Iman	Idatcha	*Solanum aethiopicum*	L.	Solanaceae
Immani	Gourmantché	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Imonruèyè	Ifè	*Solanum americanum*	Mill.	Solanaceae
Iroko	Holly	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Isidikaka	Anii	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Itchègba	Idatcha	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Itchègba	Holly	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Itchin	Idatcha	*Blighia sapida*	König	Sapindaceae
Itchin	Holly	*Blighia sapida*	König	Sapindaceae
Itcho	Ifè	*Corchorus tridens*	L.	Tiliaceae
Itoo	Idatcha	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Itoo	Holly	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Itukulusuan	Anii	*Gomphrena*	Mart.	Amaranthaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		celosioides		
Ituni	Gourmantché	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Joskuèkuèfa	Waama	*Basella alba*	L.	Basellaceae
Kadara	Kotokoli	*Adansonia digitata*	L.	Bombacaceae
Kadarabobo	Kotokoli	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Kagbokligbokli	Anii	*Stereospermum kunthianum*	Cham.	Bignoniaceae
Kagoussi	Aizo	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kaka	Idatcha	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kaka N'to	Ifè	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Kaka Accra	Ifè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kaka Aklampa	Ifè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kaka Arotchè	Ifè	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Kaka Igba	Ifè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kaka Itoo	Ifè	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Kaka Orotchè	Ifè	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Kaka Ungba	Ifè	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kakawaabu	Waama	*Vernonia amygdalina*	Delile	Asteraceae
Kakui	Fon	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kakun	Mahi	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kambaguinda	Gourmantché	*Solanum macrocarpon*	L.	Solanaceae
Kanhin	Boko	*Cucurbita pepo*	L.	Cucurbitaceae
Kansin	Boko	*Cucurbita pepo*	L.	Cucurbitaceae
Kantchéunsu	Waama	*Solanum aethiopicum*	L.	Solanaceae
Kantchéunsu	Waama	*Solanum sp.*		Solanaceae
Kanwu	Idatcha	*Lippia multiflora*	Moldenke	Verbenaceae
Kapoo	Boko	*Bombax costatum*	Pellegr. &	Bombacaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
			Vuillet	
Karaouikpérou	Bariba	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Karatchitou	Kotokoli	*Amaranthus cruentus*	L.	Amaranthaceae
Karikoobu	Waama	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Kasalantoro	Anii	*Pandiaka involucrata*	(Moq.) Hook.f.	Amaranthaceae
Kasongui	Bariba	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Kasongui	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kasonki	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Katakpa	Tchabè	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Katchokolodé	Anii	*Luffa aegyptiaca*	(L.) M. Roem.	Cucurbitaceae
Katchudayi	Cotafon	*Boerhavia diffusa*	L.	Nyctaginaceae
Katchuingahi	Cotafon	*Boerhavia diffusa*	L.	Nyctaginaceae
Katchunyayi	Aizo	*Boerhavia diffusa*	L.	Nyctaginaceae
Katre	Adja	*Crescentia cujete*	L.	Bignoniaceae
Kaya	Cotafon	*Cleome gynandra*	L.	Capparaceae
Kèemè	Kotokoli	*Afzelia africana*	Sm.	Leguminosae-Caesalpinioideae
Kelesuan	Boko	*Stylochaeton hypogeum*	Lepr.	Araceae
Kèrè	Kotokoli	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Kétchilan'gan	Kotokoli	*Morinda lucida*	Benth.	Rubiaceae
Kétékuso	Bariba	*Stylochaeton hypogeum*	Lepr.	Araceae
Kiagborou	Bariba	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Kiagbosu	Bariba	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Kiayo	Mahi	*Ocimum gratissimum*	L.	Lamiaceae
Kiborga	Gourmantché	*Mikania chenopodifolia*	Wild	Asteraceae
Kikpaovlan	Boko	*Heliotropium indicum*	L.	Boraginaceae
Kilovi	Adja	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Kimbrékoudjondjo	Kotokoli	*Celosia argentea*	L.	Amaranthaceae
Kinanzorou	Kotokoli	*Ocimum*	L.	Lamiaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		gratissimum		
Kingbo	Aizo	*Solanum aethiopicum*	L.	Solanaceae
Kinunubidjaga	Gourmantché	*Ocimum gratissimum*	L.	Lamiaceae
Kinwunkinwu	Tchabè	*Lippia multiflora*	Moldenke	Verbenaceae
Kiooyo	Mahi	*Ocimum gratissimum*	L.	Lamiaceae
Kissiadje	Adja	*Croton lobatus*	L.	Euphorbiaceae
Kitchintchin	Kotokoli	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Kiyoyo	Mahi	*Ocimum gratissimum*	L.	Lamiaceae
Klaba	Cotafon	*Manihot glaziovii*	Müll.Arg.	Euphorbiaceae
Kobéré Eru	Ifè	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Kobsa	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Kodago	Bariba	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Kodagou	Bariba	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Kodukwè	Mahi	*Ocimum basilicum*	L.	Lamiaceae
Kofoloko	Anii	*Corchorus tridens*	L.	Tiliaceae
Kogbo	Mahi	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Koguede	Cotafon	*Spigelia anthelmia*	L.	Loganiaceae
Kohinan	Boko	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Kohun	Mahi	*Ocimum canum*	L.	Lamiaceae
Kohuntohunbiré	Anii	*Colocasia esculenta*	(L.) Schott	Araceae
Koklossoudinkpatcha	Cotafon	*Heliotropium indicum*	L.	Boraginaceae
Koklowontin	Mahi	*Croton lobatus*	L.	Euphorbiaceae
Koko	Tchabè	*Colocasia esculenta*	(L.) Schott	Araceae
Kokoobu	Waama	*Colocasia esculenta*	(L.) Schott	Araceae
Kokotagou	Bariba	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Kokoula	Boko	*Ocimum basilicum*	L.	Lamiaceae
Kokpaki	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Komiré	Kotokoli	*Ceiba pentandra*	(L.) Gaertn.	Bombacaceae
Kongovira	Kotokoli	*Strychnos spinosa*	Lam.	Loganiaceae
Konnoukou	Bariba	*Vitex doniana*	Sweet	Verbenaceae
Kontonbo	Anii	*Adansonia digitata*	L.	Bombacaceae
Kôô	Dendi	*Adansonia digitata*	L.	Bombacaceae
Koobsa	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Koobuyonku	Bariba	*Kedrostis foetidissima*	(Jacq.) Cogn.	Cucurbitaceae
Kookatchore	Waama	*Heliotropium indicum*	L.	Boraginaceae
Koolou	Kotokoli	*Bridelia ferruginea*	Benth	Euphorbiaceae
Kootibitirinan	Waama	*Ipomoea triloba*	L.	Convolvulaceae
Korokutu	Waama	*Solanum americanum*	Mill.	Solanaceae
Kororou	Bariba	*Calotropis procera*	(Aiton) W. T. Aiton	Asclepiadaceae
Kota	Dendi	*Cochlospermum tinctorium*	A.Rich.	Cochlospermaceae
Kotakédé	Fon	*Deinbollia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Kotana	Dendi	*Solanum aethiopicum*	L.	Solanaceae
Kotchiodo	Kotokoli	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Kotombré	Anii	*Xanthosoma maffafa*	Schott	Araceae
Kotoroku	Waama	*Solanum americanum*	Mill.	Solanaceae
Kotoroku	Waama	*Solanum scabrum*	Mill.	Solanaceae
Kouagniboubougou	Gourmantché	*Sesamum indicum*	L.	Pedaliaceae
Koubologoun	Gourmantché	*Cochlospermum tinctorium*	A.Rich.	Cochlospermaceae
Koudéhoun	Bariba	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Koudoola	Boko	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Kouetchivigbe	Adja	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Kouganrou	Gourmantché	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Koula	Boko	*Vitellaria paradoxa*	C.F.Gaertn.	Sapotaceae
Koumankoussolè	Ifè	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Kounonkou	Bariba	*Vitex doniana*	Sweet	Verbenaceae
Kounonsorou	Kotokoli	*Ocimum gratissimum*	L.	Lamiaceae
Kourokountonou	Bariba	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Kourokouro	Idatcha	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Kourokoutonou	Boko	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Kousanla	Boko	*Vitex doniana*	Sweet	Verbenaceae
Kouta	Aizo	*Margaritaria*	(Baill.) Webster	Euphorbiaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		discoidea		
Koutéman	Cotafon	*Manihot esculenta*	Crantz	Euphorbiaceae
Koutouga	Dendi	*Adansonia digitata*	L.	Bombacaceae
Koutouman	Adja	*Manihot esculenta*	Crantz	Euphorbiaceae
Koutounga	Dendi/ Djerma	*Adansonia digitata*	L.	Bombacaceae
Koya	Aizo	*Telosma africana*	(N.E.Br.) N.E.Br.	Asclepiadaceae
Kpahunmarogu	Gourmantché	*Justicia insularis*	T. Anderson	Acanthaceae
Kpaki	Bariba	*Manihot esculenta*	Crantz	Euphorbiaceae
Kpaki	Tchabè	*Manihot esculenta*	Crantz	Euphorbiaceae
Kpaki	Holly	*Manihot esculenta*	Crantz	Euphorbiaceae
Kpakiwurusu	Bariba	*Manihot esculenta*	Crantz	Euphorbiaceae
Kpakiwurusu	Bariba	*Manihot esculenta*	Crantz	Euphorbiaceae
Kpakossu	Mahi	*Solanum sp.*		Solanaceae
Kpakpa	Tchabè	*Hibiscus sabdariffa*	L.	Malvaceae
Kpakpa	Mahi	*Hibiscus sabdariffa*	L.	Malvaceae
Kpakpara	Ifè	*Hibiscus sabdariffa*	L.	Malvaceae
Kpakpara	Idatcha	*Hibiscus sabdariffa*	L.	Malvaceae
Kpalaari	Anii	*Momordica charantia*	L.	Cucurbitaceae
Kpalayi	Tchabè	*Momordica charantia*	L.	Cucurbitaceae
Kpalo	Kotokoli	*Entada africana*	Guill. & Perr.	Leguminosae-Mimosoideae
Kpalouman	Mahi	*Moringa oleifera*	Lam.	Moringaceae
Kpannankpon	Adja	*Laportea aestuans*	(L.) Chew	Urticaceae
Kpansandé	Waama	*Solanum aethiopicum*	L.	Solanaceae
Kpanuman	Fon	*Moringa oleifera*	Lam.	Moringaceae
Kpanuman	Mahi	*Moringa oleifera*	Lam.	Moringaceae
Kpanuyédédé	Fon	*Moringa oleifera*	Lam.	Moringaceae
Kpassa	Aizo	*Adansonia digitata*	L.	Bombacaceae
Kpassa	Fon	*Adansonia digitata*	L.	Bombacaceae
Kpassa	Mahi	*Adansonia digitata*	L.	Bombacaceae
Kpatakunkpakun	Tchabè	*Solanum macrocarpon*	L.	Solanaceae
Kpatindewoun	Aizo	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Kpatotwe	Cotafon	*Passiflora foetida*	L.	Passifloraceae
Kpatovi	Cotafon	*Moringa oleifera*	Lam.	Moringaceae
Kpatovigbe	Cotafon	*Moringa oleifera*	Lam.	Moringaceae
Kpayola	Holly	*Jatropha curcas*	L.	Euphorbiaceae
Kpé	Boko	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Kpèborè	Waama	*Adansonia digitata*	L.	Bombacaceae
Kpédanbakarou	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Kpéhloussou	Bariba	*Ipomoea asarifolia*	(Desr.) Roem. & Schult.	Convolvulaceae
Kpékatodan	Bariba	*Gmelina arborea*	Roxb	Verbenaceae
Kpèkolokpèkolo	Holly	*Deinbollia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Kpékonan	Bariba	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Kpela	Boko	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Kpélé	Mahi	*Vernonia sp.*		Asteraceae
Kpéléonèrozo	Kotokoli	*Rytigynia senegalensis*	Blume	Rubiaceae
Kpélléroulénazo	Kotokoli	*Fadogia erythrophloea*	(K.Schum. & K.Krause) Hutch. & Dalziel	Rubiaceae
Kpèloutchkoloko	Kotokoli	*Erythrina senegalensis*	DC.	Leguminosae-Papilionoideae
Kpéouka	Bariba	*Solanum americanum*	Mill.	Solanaceae
Kpéronra	Bariba	*Solanum americanum*	Mill.	Solanaceae
Kpewonka	Bariba	*Solanum scabrum*	Mill.	Solanaceae
Kpezo	Kotokoli	*Blighia sapida*	König	Sapindaceae
Kpinsiao	Boko	*Solanum americanum*	Mill.	Solanaceae
Kpinsio	Boko	*Solanum americanum*	Mill.	Solanaceae
Kpodo	Idatcha	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Kpofobo	Anii	*Laportea aestuans*	(L.) Chew	Urticaceae
Kpolakpola	Ifè	*Cissus populnea*	Guill. & Perr.	Vitaceae
Kpoman Alawiniwini	Mahi	*Solanum sp.*		Solanaceae
Kponnikponni	Aizo	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Kpoyiba	Aizo	*Manihot esculenta*	Crantz	Euphorbiaceae
Kprakpraka	Kotokoli	*Lophira lanceolata*	Tiegh.ex Keay	Ochnaceae
Kuaan'gu	Gourmantché	*Sesamum indicum*	L.	Pedaliaceae
Kuaan'gu	Gourmantché	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Kuanla	Boko	*Vernonia amygdalina*	Delile	Asteraceae
Kuanonman	Waama	*Crotalaria macrocalyx*	Benth.	Leguminosae-Papilionoideae
Kufelugu	Gourmantché	*Cucurbita pepo*	L.	Cucurbitaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Kufoagnagu	Gourmantché	*Sesamum indicum*	L.	Pedaliaceae
Kugberigu	Gourmantché	*Hibiscus asper*	Hook.f.	Malvaceae
Kugunfa	Waama	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Kula	Boko	*Vitex doniana*	Sweet	Verbenaceae
Kuliabuga	Gourmantché	*Solanum americanum*	Mill.	Solanaceae
Kumalikoungu	Gourmantché	*Crotalaria macrocalyx*	Benth.	Leguminosae-Papilionoideae
Kumanfagu	Gourmantché	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Kumonku	Ifè	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Kunonku	Bariba	*Vitex doniana*	Sweet	Verbenaceae
Kunuruku	Otammari	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Kuokuma	Waama	*Asystasia sp.*		Acanthaceae
Kuokuntu	Waama	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Kuotina	Waama	*Ipomoea triloba*	L.	Convolvulaceae
Kupanuonku	Otammari	*Ocimum basilicum*	L.	Lamiaceae
Kurokuntonnu	Bariba	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Kurokuntonnu	Boko	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Kute	Cotafon	*Manihot esculenta*	Crantz	Euphorbiaceae
Kutuman	Adja	*Manihot esculenta*	Crantz	Euphorbiaceae
Kuyuamongu	Gourmantché	*Grewia mollis*	Juss.	Tiliaceae
Kwesivi	Cotafon	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Lafé	Dendi	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Lafoï	Dendi/ Djerma	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Lagalaga	Tchabè	*Moringa oleifera*	Lam.	Moringaceae
Lakouta	Dendi	*Sesamum radiatum*	Schumach.& Thonn.	Pedaliaceae
Lakuta	Dendi/ Djerma	*Sesamum radiatum*	Schumach.& Thonn.	Pedaliaceae
Langalanga	Idatcha	*Moringa oleifera*	Lam.	Moringaceae
Langali	Idatcha	*Moringa oleifera*	Lam.	Moringaceae
Lanman	Adja	*Solanum scabrum*	Mill.	Solanaceae
Lanti	Dendi/ Djerma	*Sesamum alatum*	Thonn.	Pedaliaceae
Lasia	Boko	*Ipomoea fistulosa*	Mart. ex choisy	Convolvulaceae
Latotoé	Mahi	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Lele	Boko	*Blighia sapida*	König	Sapindaceae
Lelebe	Boko	*Blighia sapida*	König	Sapindaceae
Leptanda	Dendi	*Cucurbita maxima*	Duchesne	Cucurbitaceae
Leptanda	Dendi	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Léwèman	Idatcha	*Vitex doniana*	Sweet	Verbenaceae
Libokpabli	Gourmantché	*Basella alba*	L.	Basellaceae
Libokpabli	Gourmantché	*Portulaca oleracea*	L.	Portulacaceae
Lidjangnaliyuani	Gourmantché	*Cissus populnea*	Guill. & Perr.	Vitaceae
Lifèli	Gourmantché	*Cucurbita maxima*	Duchesne	Cucurbitaceae
Lifrubiale	Gourmantché	*Acmella oleracea*	(Sw.) Cass.	Asteraceae
Lifrubiale	Gourmantché	*Acmella oleracea*	(Sw.) Cass.	Asteraceae
Lifrubiale	Gourmantché	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Lili	Mahi	*Grewia mollis*	Juss.	Tiliaceae
Lili	Fon	*Grewia mollis*	Juss.	Tiliaceae
Liman	Adja	*Asystasia gangetica*	(L.) T. Anderson	Acanthaceae
Lingbooukoun	Cotafon	*Deinbollia pinnata*	(Poir.) Schumach.& Thonn.	Sapindaceae
Lisayani	Gourmantché	*Cochlospermum planchoni*	Hook.f.	Cochlospermaceae
Lituokali	Gourmantché	*Adansonia digitata*	L.	Bombacaceae
Liyani	Gourmantché	*Grewia mollis*	Juss.	Tiliaceae
Logo	Dendi	*Manihot esculenta*	Crantz	Euphorbiaceae
Logo	Bariba	*Manihot esculenta*	Crantz	Euphorbiaceae
Loki	Idatcha	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Loki	Anii	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Lokikabo	Anii	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Loko	Aizo	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Lokohouegbe	Aizo	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Lokohoueton	Aizo	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Lokoyovo	Aizo	*Passiflora edulis*	Sims	Passifloraceae
Lokpo	Fon	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Lokpo	Mahi	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Lolouide	Adja	*Sterculia tragacantha*	Lindl.	Sterculiaceae
Lolouma	Oueme	*Persicaria senegalensis*	(Kunth) M.Gomez	Polygonaceae
Lolouma	Oueme	*Persicaria senegalensis*	(Kunth) M. Gomez	Polygonaceae
Loman	Adja	*Vernonia amygdalina*	Delile	Asteraceae
Loman	Cotafon	*Vernonia amygdalina*	Delile	Asteraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Loman	Aizo	*Vernonia amygdalina*	Delile	Asteraceae
Lomboukou	Kotokoli	*Cochlospermum planchoni*	Hook.f.	Cochlospermaceae
Lonloui	Adja	*Corchorus tridens*	L.	Tiliaceae
Lotché	Mahi	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Louakpin	Boko	*Portulaca oleracea*	L.	Portulacaceae
Maande	Waama	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Makana	Adja	*Xanthosoma maffafa*	Schott	Araceae
Makani	Cotafon	*Xanthosoma maffafa*	Schott	Araceae
Mamfaman	Waama	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Mangani	Bariba	*Colocasia esculenta*	(L.) Schott	Araceae
Mangani	Anii	*Colocasia esculenta*	(L.) Schott	Araceae
Mangani	Bariba	*Stylochaeton hypogeum*	Lepr.	Araceae
Mangani	Bariba	*Xanthosoma maffafa*	Schott	Araceae
Mangani	Idatcha	*Colocasia esculenta*	(L.) Schott	Araceae
Manganou	Bariba	*Stylochaeton hypogeum*	Lepr.	Araceae
Mango	Kotokoli	*Mangifera indica*	L.	Anacardiaceae
Mankani	Ifè	*Colocasia esculenta*	(L.) Schott	Araceae
Mannan	Kotokoli	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Manya	Waama	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Masamanbu	Waama	*Moringa oleifera*	Lam.	Moringaceae
M'ba	Kotokoli	*Synaptolepis retusa*	H.H.W.Pearson	Thymelaeaceae
Mèfòdòmmè	Otammari	*Blighia sapida*	König	Sapindaceae
Mèkokummè	Otammari	*Croton lobatus*	L.	Euphorbiaceae
Mèldè	Kotokoli	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Mèsanyenkumè	Otammari	*Celosia sp.*		Amaranthaceae
M'gbinnou	Kotokoli	*Cissus quadrangularis*	L.	Vitaceae
Mikpehoue	Adja	*Tridax procumbens*	L.	Asteraceae
Mikpekagma	Gourmantché	*Vernonia amygdalina*	Delile	Asteraceae
Minapuopuoma	Gourmantché	*Corchorus olitorius*	L.	Tiliaceae
Minsitu	Waama	*Hibiscus sabdariffa*	L.	Malvaceae
Monrorou	Bariba	*Photo arbre*		
Moto	Oueme	*Amaranthus viridis*	L.	Amaranthaceae
Moulannou	Bariba	*Bombax costatum*	Pellegr. &	Bombacaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
			Vuillet	
Mouloumanhadjè	Dendi	*Portulaca oleracea*	L.	Portulacaceae
Mourou Mandjé	Dendi	*Portulaca oleracea*	L.	Portulacaceae
Moussoukoubaagou	Bariba	*Croton lobatus*	L.	Euphorbiaceae
Mubuo	Otammari	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Mufodoomu	Otammari	*Blighia sapida*	König	Sapindaceae
Mukomu	Otammari	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Mumantonmu	Otammari	*Vitex doniana*	Sweet	Verbenaceae
Mupetènonmu	Otammari	*Ficus sp.*		Moraceae
Musaatimu	Otammari	*Grewia mollis*	Juss.	Tiliaceae
Musannum	Otammari	*Grewia mollis*	Juss.	Tiliaceae
Mutanmutimu	Otammari	*Annona senegalensis*	Pers.	Annonaceae
Mutorumu	Otammari	*Adansonia digitata*	L.	Bombacaceae
Mutoun	Waama	*Justicia insularis*	T. Anderson	Acanthaceae
Nafanafa	Gourmantché	*Amaranthus viridis*	L.	Amaranthaceae
Nafanafa/Piwejeya	Gourmantché	*Celosia trigyna*	L.	Amaranthaceae
Nanfama	Waama	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Nantorobu	Waama	*Ipomoea vagans*	Baker	Convolvulaceae
Natinnonman	Waama	*Sida alba*	L.	Malvaceae
N'boubouroumin	Anii	*Cochlospermum tinctorium*	A.Rich.	Cochlospermaceae
Nehoun	Cotafon	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Nènoun	Oueme	*Corchorus olitorius*	L.	Tiliaceae
Nevalalawa	Kotokoli	*Smilax kraussiana*	Willd.	Smilacaceae
N'fulumana	Anii	*Pupalia lappacea*	(L.) Juss.	Amaranthaceae
N'gboman	Ifè	*Solanum macrocarpon*	L.	Solanaceae
Nigalia	Kotokoli	*Gymnosporia senegalensis*	(Lam.) Loes.	Celastraceae
Nigobou	Bariba	*Pistia stratiotes*	L.	Araceae
Ninhouin	Aizo	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ninhouin	Aizo	*Corchorus olitorius*	L.	Tiliaceae
Ninhouinaman	Aizo	*Corchorus olitorius*	L.	Tiliaceae
Ninhoun	Cotafon	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ninnibu	Waama	*Cucurbita pepo*	L.	Cucurbitaceae
Ninnibu	Waama	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Ninnou	Mahi	*Abelmoschus*	(L.) Moench.	Malvaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		esculentus		
Ninnouwi	Fon	*Corchorus olitorius*	L.	Tiliaceae
Ninnuwi	Mahi	*Corchorus olitorius*	L.	Tiliaceae
Ninnuwi	Aizo	*Corchorus olitorius*	L.	Tiliaceae
Nisotti	Kotokoli	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
N'la	Ifè	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Nobileleri	Gourmantché	*Ipomoea mauritiana*	Jacq.	Convolvulaceae
Nonfaro	Kotokoli	*Ozoroa pulcherrima*	(Schweinf.) R. & A. Fernandes	Anacardiaceae
Nonman	Waama	*Sesamum indicum*	L.	Pedaliaceae
Nontaakutè	Waama	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Noubadjosorom	Kotokoli	*Desmodium ramosissimum*	G.Don	Leguminosae-Papilionoideae
Nounougou	Dendi	*Ocimum gratissimum*	L.	Lamiaceae
N'tchin	Ifè	*Blighia sapida*	König	Sapindaceae
Nuanzua	Boko	*Ocimum gratissimum*	L.	Lamiaceae
Obaléran	Holly	*Basella alba*	L.	Basellaceae
Obeodundun	Holly	*Corchorus olitorius*	L.	Tiliaceae
Obeyoloyo	Holly	*Corchorus olitorius*	L.	Tiliaceae
Oché	Holly	*Adansonia digitata*	L.	Bombacaceae
Odjogodo	Ifè	*Celosia sp.*		Amaranthaceae
Ododo	Ifè	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Ododo	Idatcha	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Ododo	Ifè	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Odondon	Bariba	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Ofin	Tchabè	*Ocimum canum*	L.	Lamiaceae
Ogafa	Holly	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Ogbonfufu	Ifè	*Pergularia daemia*	(Forssk.) Chiov.	Asclepiadaceae
Ogbonfufu	Idatcha	*Pergularia daemia*	(Forssk.) Chiov.	Asclepiadaceae
Ogosu	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Ogroufè	Idatcha	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Ogudu	Tchabè	*Dalbergia saxatilis*	Hook.f.	Leguminosae-Papilionoideae
Ogufè	Ifè	*Bombax costatum*	Pellegr. &	Bombacaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
			Vuillet	
Ogufè	Holly	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Okoun	Holly	*Vitex doniana*	Sweet	Verbenaceae
Okpoto	Ifè	*Ficus asperifolia*	Miq.	Moraceae
Okpoto	Holly	*Ficus sur*	Forssk.	Moraceae
Oléé	Holly	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Olo'ngobiè	Anii	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Olowon'djèdja	Tchabè	*Amaranthus cruentus*	L.	Amaranthaceae
Omronlugboko	Ifè	*Cochlospermum planchoni*	Hook.f.	Cochlospermaceae
Ooyo	Tchabè	*Corchorus olitorius*	L.	Tiliaceae
Ordondon	Tchabè	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Orè	Ifè	*Grewia mollis*	Juss.	Tiliaceae
Orè	Idatcha	*Grewia mollis*	Juss.	Tiliaceae
Ori	Holly	*Vitex doniana*	Sweet	Verbenaceae
Orkpokpoou	Tchabè	*Jatropha curcas*	L.	Euphorbiaceae
Orlo	Tchabè	*Cissus populnea*	Guill. & Perr.	Vitaceae
Oro	Idatcha	*Irvingia gabonensis*	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Oro	Holly	*Irvingia gabonensis*	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Oroyèfoun	Holly	*Irvingia gabonensis*	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Oru	Holly	*Croton lobatus*	L.	Euphorbiaceae
Oruhandètcho	Idatcha	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Ossounodo	Holly	*Solanum sp.*		Solanaceae
Ossun	Holly	*Solanum macrocarpon*	L.	Solanaceae
Ossun	Holly	*Solanum villosum*		Solanaceae
Ossun	Holly	*Solanum aethiopicum*	L.	Solanaceae
Ossun Dudu	Holly	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Otangoumbo	Gourmantché	*Manihot esculenta*	Crantz	Euphorbiaceae
Otan'ta	Anii	*Dicoma sessiflora*	Harv.	Asteraceae
Otché	Ifè	*Adansonia digitata*	L.	Bombacaceae
Otché	Tchabè	*Adansonia digitata*	L.	Bombacaceae
Otché	Idatcha	*Adansonia digitata*	L.	Bombacaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Otché	Holly	*Adansonia digitata*	L.	Bombacaceae
Oyo	Gourmantché	*Corchorus olitorius*	L.	Tiliaceae
Parbatukpékpériya	Waama	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Pinwè	Boko	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Plompo	Bariba	*Calotropis procera*	(Aiton) W. T. Aiton	Asclepiadaceae
Pobunga	Gourmantché	*Asystasia gangetica*	(L.) T. Anderson	Acanthaceae
Potoka	Waama	*Strychnos innocua*	Delile	Loganiaceae
Pouanla	Boko	*Vernonia amygdalina*	Delile	Asteraceae
Purumbu	Waama	*Blighia sapida*	König	Sapindaceae
Puru'nta	Waama	*Blighia sapida*	König	Sapindaceae
Pusika	Waama	*Tamarindus indica*	L.	Leguminosae-Caesalpinioideae
Quitchininnin	Anii	*Chrysanthellum indicum*	DC.	Asteraceae
Roba	Aizo	*Manihot glaziovii*	Müll.Arg.	Euphorbiaceae
Roko	Holly	*Telfairia occidentalis*	Hook.f.	Cucurbitaceae
Saanru	Bariba	*Cissus populnea*	Guill. & Perr.	Vitaceae
Sabo	Adja	*Cleome gynandra*	L.	Capparaceae
Sagourou	Bariba	*Amaranthus spinosus*	L.	Amaranthaceae
Sambinoutééna	Bariba	*Solanum aethiopicum*	L.	Solanaceae
Sambinu	Bariba	*Solanum macrocarpon*	L.	Solanaceae
Sambo	Cotafon	*Cleome rutidosperma*	DC.	Capparaceae
Sangasanga	Gourmantché	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Sanpota	Bariba	*Solanum macrocarpon*	L.	Solanaceae
Sanro	Bariba	*Cissus populnea*	Guill. & Perr.	Vitaceae
Sanro	Bariba	*Ipomoea asarifolia*	(Desr.) Roem. & Schult.	Convolvulaceae
Sanro	Bariba	*Ipomoea asarifolia*	(Desr.) Roem. & Schult.	Convolvulaceae
Sansande	Bariba	*Hibiscus asper*	Hook.f.	Malvaceae
Sararu	Bariba	*Cissus populnea*	Guill. & Perr.	Vitaceae
Sèéma	Boko	*Hibiscus sabdariffa*	L.	Malvaceae
Sèénabolèzian	Boko	*Hibiscus asper*	Hook.f.	Malvaceae
Sééri	Bariba	*Hibiscus sabdariffa*	L.	Malvaceae
Sééri Pigaa	Bariba	*Hibiscus sabdariffa*	L.	Malvaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Séériri Suan	Bariba	*Hibiscus sabdariffa*	L.	Malvaceae
Seiiyaba	Boko	*Cassytha filiformis*	L.	Lauraceae
Séinan	Boko	*Hibiscus sabdariffa*	L.	Malvaceae
Séinanbolezian	Boko	*Hibiscus asper*	Hook.f.	Malvaceae
Sekefèman	Waama	*Corchorus olitorius*	L.	Tiliaceae
Siandala	Boko	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Sihaadòmpèi	Otammari	*Sesamum indicum*	L.	Pedaliaceae
Simonba	Tchabè	*Ocimum gratissimum*	L.	Lamiaceae
Sinkosirekou	Bariba	*Nelsonia canescens*	(Lam.) Spreng.	Acanthaceae
Sinkpika	Bariba	*Hibiscus sabdariffa*	L.	Malvaceae
Sinku	Fon	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Sinku	Fon	*Hibiscus sabdariffa*	L.	Malvaceae
Sinnenou	Aizo	*Corchorus tridens*	L.	Tiliaceae
Sinri	Bariba	*Hibiscus sabdariffa*	L.	Malvaceae
Sinsambou	Bariba	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Sinsouan	Bariba	*Hibiscus sabdariffa*	L.	Malvaceae
Sintikpi	Bariba	*Hibiscus asper*	Hook.f.	Malvaceae
Sisikou	Kotokoli	*Combretum molle*	R.Br. Ex G.Don	Combretaceae
Sissi	Mahi	*Blighia sapida*	König	Sapindaceae
Sodjagbe	Cotafon	*Amaranthus spinosus*	L.	Amaranthaceae
Sogbe	Adja	*Amaranthus spinosus*	L.	Amaranthaceae
Sogbe	Adja	*Amaranthus viridis*	L.	Amaranthaceae
Soko	Bariba	*Lippia multiflora*	Moldenke	Verbenaceae
Sola	Ifè	*Grewia mollis*	Juss.	Tiliaceae
Solo	Kotokoli	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Soman	Oueme	*Amaranthus cruentus*	L.	Amaranthaceae
Soman	Adja	*Celosia argentea*	L.	Amaranthaceae
Soman	Aizo	*Celosia argentea*	L.	Amaranthaceae
Soman	Fon	*Celosia argentea*	L.	Amaranthaceae
Soman	Idatcha	*Celosia argentea*	L.	Amaranthaceae
Soman	Mahi	*Celosia argentea*	L.	Amaranthaceae
Soman	Fon	*Celosia argentea*	L.	Amaranthaceae
Soman	Holly	*Celosia argentea*	L.	Amaranthaceae
Sombékékéssou	Bariba	*Celosia trigyna*	L.	Amaranthaceae
Sonan	Bariba	*Adansonia digitata*	L.	Bombacaceae
Sonanfadé	Kotokoli	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae

Local Name	Linguistic group	Scientific name	Authorship	Family
Sonki	Bariba	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Sonnan	Bariba	*Adansonia digitata*	L.	Bombacaceae
Sonru	Bariba	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Soonou	Anii	*Adenia lobata*	(Jacq.) Engl.	Passifloraceae
Sooula	Boko	*Senna obtusifolia*	(L.) H.S.Irwin & Barneby	Leguminosae-Caesalpinioideae
Soua	Kotokoli	*Terminalia brownii*	Fresen.	Combretaceae
Souadobagarou	Bariba	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Souadobarga	Bariba	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Souadoberékenou	Bariba	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Souaka	Kotokoli	*Vernonia amygdalina*	Delile	Asteraceae
Souaka	Dendi	*Vernonia amygdalina*	Delile	Asteraceae
Soumon	Bariba	*Adansonia digitata*	L.	Bombacaceae
Soungui	Bariba	*Amaranthus viridis*	L.	Amaranthaceae
Souwaka	Kotokoli	*Vernonia amygdalina*	Delile	Asteraceae
Sowadobaragaru	Boko	*Leptadenia hastata*	(Pers.) Decne.	Asclepiadaceae
Suiwurusu	Bariba	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Suninrima	Waama	*Celosia sp.*		Amaranthaceae
Taanidò'nti	Otammari	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Taanonma	Waama	*Sesamum indicum*	L.	Pedaliaceae
Tabarabu	Waama	*Cissus palmatifida*	(Baker) Planch.	Vitaceae
Tampuobu	Waama	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Tankoruminsuku	Waama	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Tarèyka	Kotokoli	*Cryptolepis oblongifolia*	(Meisn.) Schltr.	Asclepiadaceae
Tataya	Waama	*Boerhavia diffusa*	L.	Nyctaginaceae
Tchaati	Ifè	*Momordica charantia*	L.	Cucurbitaceae
Tchagara	Ifè	*Lippia multiflora*	Moldenke	Verbenaceae
Tchakpa	Mahi	*Hibiscus sabdariffa*	L.	Malvaceae
Tchalawaré	Kotokoli	*Aganope stuhlmannii*	(Taub.) Adema	Leguminosae-Papilionoideae
Tchalè	Kotokoli	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Tchanmandido	Cotafon	*Ocimum*	L.	Lamiaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		gratissimum		
Tchapya	Kotokoli	*Gymnosporia senegalensis*	(Lam.) Loes.	Celastraceae
Tcharipokoma	Waama	*Chrysanthellum indicum*	DC.	Asteraceae
Tchatchala	Boko	*Momordica charantia*	L.	Cucurbitaceae
Tchayo	Oueme	*Ocimum gratissimum*	L.	Lamiaceae
Tchègba	Adja	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Tchègba	Fon	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Tchègba	Mahi	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Tchèlè	Kotokoli	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Tchiayo	Fon	*Ocimum gratissimum*	L.	Lamiaceae
Tchidifulè	Tchabè	*Solanum aethiopicum*	L.	Solanaceae
Tchiffoou	Kotokoli	*Gmelina arborea*	Roxb	Verbenaceae
Tchigbaro	Kotokoli	*Vitex doniana*	Sweet	Verbenaceae
Tchilili	Kotokoli	*Fadogia cienkowskii*	Scweinf.	Rubiaceae
Tchimandidé	Aizo	*Ocimum gratissimum*	L.	Lamiaceae
Tchimarou	Kotokoli	*Vitex doniana*	Sweet	Verbenaceae
Tchindjinan	Kotokoli	*Maerua angolensis*	DC.	Capparaceae
Tchinguili	Kotokoli	*Burkea africana*	Hook.	Leguminosae-Caesalpinioideae
Tchirotché	Dendi	*Amaranthus viridis*	L.	Amaranthaceae
Tchitchiribu	Waama	*Plumbago zeylanica*	L.	Plumbaginaceae
Tchobodouè	Mahi	*Celosia trigyna*	L.	Amaranthaceae
Tchokoagbodjouba	Holly	*Amaranthus cruentus*	L.	Amaranthaceae
Tchokoognibo	Holly	*Celosia argentea*	L.	Amaranthaceae
Tchokoto	Oueme	*Celosia argentea*	L.	Amaranthaceae
Tchokoto	Aizo	*Celosia argentea*	L.	Amaranthaceae
Tchokototovè	Aizo	*Celosia argentea*	L.	Amaranthaceae
Tchokoyokoto	Ifè	*Celosia argentea*	L.	Amaranthaceae
Tchokugbolo	Ifè	*Cissus populnea*	Guill. & Perr.	Vitaceae
Tcholi	Idatcha	*Cochlospermum planchoni*	Hook.f.	Cochlospermaceae
Tchomboulouzo	Kotokoli	*Stachytarpheta*	(L.) Vahl	Verbenaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		indica		
Tchoosikpékéfa	Waama	*Basella alba*	L.	Basellaceae
Tchotchodè	Kotokoli	*Annona senegalensis*	Pers.	Annonaceae
Tchoutchoudè	Kotokoli	*Annona senegalensis*	Pers.	Annonaceae
Tcidudju	Adja	*Terminalia glaucescens*	Planch.ex Benth.	Combretaceae
Tekpadjeluyologa	Gourmantché	*Acalypha ciliata*	Forssk.	Euphorbiaceae
Tekpegnonkonkondé	Gourmantché	*Amaranthus dubius*	Mart. Ex Thell.	Amaranthaceae
Télénou	Bariba	*Hibiscus asper*	Hook.f.	Malvaceae
Tengantenga	Kotokoli	*Combretum sericeum*	G.Don	Combretaceae
Tereguenu	Bariba	*Amaranthus viridis*	L.	Amaranthaceae
Tèrenou	Bariba	*Hibiscus asper*	Hook.f.	Malvaceae
Tètè	Adja	*Amaranthus cruentus*	L.	Amaranthaceae
Tètè	Cotafon	*Amaranthus cruentus*	L.	Amaranthaceae
Tètè	Mahi	*Amaranthus cruentus*	L.	Amaranthaceae
Tètè	Aizo	*Amaranthus viridis*	L.	Amaranthaceae
Tètè	Oueme	*Celosia trigyna*	L.	Amaranthaceae
Tètè Elegou	Holly	*Amaranthus spinosus*	L.	Amaranthaceae
Tètè Ibile	Holly	*Amaranthus viridis*	L.	Amaranthaceae
Tètè Ognibo	Holly	*Amaranthus cruentus*	L.	Amaranthaceae
Tètèdudu	Holly	*Amaranthus cruentus*	L.	Amaranthaceae
Tètèèlègoun	Holly	*Amaranthus spinosus*	L.	Amaranthaceae
Tètèfounfoun	Holly	*Amaranthus cruentus*	L.	Amaranthaceae
Tètèfufu	Holly	*Amaranthus cruentus*	L.	Amaranthaceae
Tetegbe	Aizo	*Amaranthus viridis*	L.	Amaranthaceae
Tètèkpkpo	Tchabè	*Celosia argentea*	L.	Amaranthaceae
Tèwon	Waama	*Cleome rutidosperma*	DC.	Capparaceae
Tèyontè	Otammari	*Parkia biglobosa*	(Jacq.) R.Br.ex Benth.	Leguminosae-Mimosoideae
Tibagnalifaré	Gourmantché	*Corchorus olitorius*	L.	Tiliaceae
Tibòdayati	Otammari	*Ocimum gratissimum*	L.	Lamiaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Tibooti	Otammari	*Zanthoxylum zanthoxyloides*	(Lam.) Zeppernick & Timler	Rutaceae
Tiborafuuti	Otammari	*Commelina benghalensis*	L.	Commelinaceae
Tibòsèyenti	Otammari	*Ocimum gratissimum*	L.	Lamiaceae
Tibuoti	Otammari	*Margaritaria discoidea*	(Baill.) Webster	Euphorbiaceae
Ticefunti	Otammari	*Cleome rutidosperma*	DC.	Capparaceae
Tide'ndeti	Otammari	*Ipomoea triloba*	L.	Convolvulaceae
Tifaanti	Otammari	*Corchorus olitorius*	L.	Tiliaceae
Tifefari	Gourmantché	*Cucurbita pepo*	L.	Cucurbitaceae
Tifinhòuti	Otammari	*Vernonia amygdalina*	Delile	Asteraceae
Tifòònuòti	Otammari	*Manihot esculenta*	Crantz	Euphorbiaceae
Tigberti	Gourmantché	*Hibiscus asper*	Hook.f.	Malvaceae
Tignaliféri	Gourmantché	*Corchorus tridens*	L.	Tiliaceae
Tigohundi	Gourmantché	*Hibiscus sabdariffa*	L.	Malvaceae
Tiguande	Gourmantché	*Hibiscus sabdariffa*	L.	Malvaceae
Tihaadò'nti	Otammari	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Tihòrenhònti	Otammari	*Ipomoea triloba*	L.	Convolvulaceae
Tikaamboònti	Otammari	*Hibiscus asper*	Hook.f.	Malvaceae
Tikaanti	Otammari	*Solanum macrocarpon*	L.	Solanaceae
Tikahunti	Otammari	*Solanum macrocarpon*	L.	Solanaceae
Tikansibuooti	Otammari	*Hibiscus asper*	Hook.f.	Malvaceae
Tikòkònuonti	Otammari	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Tikòkuti	Otammari	*Sesamum indicum*	L.	Pedaliaceae
Tikonfaati	Otammari	*Bombax costatum*	Pellegr. & Vuillet	Bombacaceae
Tikòonti	Otammari	*Hibiscus sabdariffa*	L.	Malvaceae
Tikòtaduonti	Otammari	*Solanum americanum*	Mill.	Solanaceae
Tikpaakpaati	Otammari	*Laportea aestuans*	(L.) Chew	Urticaceae
Tikpahunkpadi	Gourmantché	*Senna obtusifolia*	(L.) H.S.Irwin & Barneby	Leguminosae-Caesalpinioideae
Tikpalala	Idatcha	*Boerhavia diffusa*	L.	Nyctaginaceae
Tikpankpandi	Gourmantché	*Senna obtusifolia*	(L.) H.S.Irwin & Barneby	Leguminosae-Caesalpinioideae
Tikpedola	Holly	*Boerhavia diffusa*	L.	Nyctaginaceae
Tikpignikpowokode	Gourmantché	*Ipomoea argentaurata*	Hallier f.	Convolvulaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Tikpinninla	Holly	*Boerhavia diffusa*	L.	Nyctaginaceae
Tikpinsindi	Gourmantché	*Luffa acutangula*	(L.) Roxb.	Cucurbitaceae
Tikpinsindi	Gourmantché	*Trichosanthes cucumerina*	L.	Cucurbitaceae
Tikuntiti	Otammari	*Vernonia amygdalina*	Delile	Asteraceae
Tiluomugbadi	Gourmantché	*Macrosphyra longistyla*	(DC.) Hiern	Rubiaceae
Timammuti	Otammari	*Cymbopogon giganteus*	(Hochst.) Chiov.	Poaceae
Timantibankoman	Boko	*Trichosanthes cucumerina*	L.	Cucurbitaceae
Timantonti	Otammari	*Vitex doniana*	Sweet	Verbenaceae
Timanuòti	Otammari	*Ipomoea batatas*	(L.) Lam.	Convolvulaceae
Timati	Holly	*Trichosanthes cucumerina*	L.	Cucurbitaceae
Timeiti	Otammari	*Gardenia sp.*		Rubiaceae
Timenmuti	Otammari	*Cymbopogon giganteus*	(Hochst.) Chiov.	Poaceae
Timunurdi	Gourmantché	*Ocimum basilicum*	L.	Lamiaceae
Timutiti	Otammari	*Annona senegalensis*	Pers.	Annonaceae
Tinacanti	Otammari	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Tinamò'nti	Otammari	*Jatropha gossypiifolia*	L.	Euphorbiaceae
Tinan	Bariba	*Cassia sieberiana*	DC.	Leguminosae-Caesalpinioideae
Tinanlifaadi	Gourmantché	*Corchorus tridens*	L.	Tiliaceae
Tinkourégou	Bariba	*Nelsonia canescens*	(Lam.) Spreng.	Acanthaceae
Tinoncanti	Otammari	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Tinonyanti	Otammari	*Celosia sp.*		Amaranthaceae
Tinufaati	Otammari	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Tinukunti	Otammari	*Justicia tenella*	(Ness) T. Anderson	Acanthaceae
Tionkoroya	Waama	*Crassocephalum rubens*	(Jacq.) S.Moore	Asteraceae
Tipaakaadonti	Otammari	*Sesamum indicum*	L.	Pedaliaceae
Tipèikanti	Otammari	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Tipètènonti	Otammari	*Boerhavia erecta*	L.	Nyctaginaceae
Tipètènonti	Otammari	*Ficus ingens*	(Miq.) Miq.	Moraceae
Tipeti	Otammari	*Cucurbita maxima*	Duchesne	Cucurbitaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Tipétipésiiti	Otammari	*Cucurbita pepo*	L.	Cucurbitaceae
Tipiepiebri	Gourmantché	*Commelina benghalensis*	L.	Commelinaceae
Tipuuti	Otammari	*Vernonia galamensis*	(Cass.) Less.	Asteraceae
Tisanpoti	Otammari	*Amaranthus spinosus*	L.	Amaranthaceae
Titankunti	Otammari	*Cissus palmatifida*	(Baker) Planch.	Vitaceae
Titayanyandi	Gourmantché	*Acalypha ciliata*	Forssk.	Euphorbiaceae
Titéénnonti	Otammari	*Boerhavia erecta*	L.	Nyctaginaceae
Titembauti	Otammari	*Margaritaria discoidea*	(Baill.) Webster	Euphorbiaceae
Titookanti	Otammari	*Adansonia digitata*	L.	Bombacaceae
Titouokaré	Gourmantché	*Adansonia digitata*	L.	Bombacaceae
Titukòuti	Otammari	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Titukpindi	Gourmantché	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Titukpòòti	Otammari	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Titu'nti	Otammari	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Tituti	Otammari	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Tiyayaakoonti	Otammari	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Todokuikan	Mahi	*Ipomoea aquatica*	Forssk.	Convolvulaceae
Togba	Fon	*Amaranthus dubius*	Mart. Ex Thell.	Amaranthaceae
Togbalo	Adja	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Togbédéssindji	Mahi	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Togble	Aizo	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Togouti	Adja	*Emilia sonchifolia*	(L.) DC. Ex Wight	Asteraceae
Tohonto	Cotafon	*Emilia sonchifolia*	(L.) DC. Ex Wight	Asteraceae
Tohossoumanou	Cotafon	*Spigelia anthelmia*	L.	Loganiaceae
Tokounme	Cotafon	*Celosia argentea*	L.	Amaranthaceae
Tokpédé	Fon	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Tokpédé Fonton	Fon	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Tokpédé Yovoton	Fon	*Basella alba*	L.	Basellaceae
Tokpéssindji	Mahi	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Tokpodé	Ifè	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Tolo	Cotafon	*Struchium sparganophora*	(L.) Kuntze	Asteraceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Toloman	Oueme	*Blumea viscosa*	(Mill.) V.M.Badillo	Asteraceae
Toloman	Aizo	*Blumea viscosa*	(Mill.) V.M.Badillo	Asteraceae
Toloman	Adja	*Ludwigia perennis*	L.	Onagraceae
Toloman	Aizo	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Toloman	Fon	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Toloman	Mahi	*Struchium sparganophora*	(L.) Kuntze	Asteraceae
Tomadohoungbè	Cotafon	*Alternanthera sessilis*	(L.) R. Br. Ex Roth	Amaranthaceae
Tookun	Fon	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Touan	Bariba	*Vernonia amygdalina*	Delile	Asteraceae
Touan	Bariba	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Toumougou	Boko	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Toutoufari	Gourmantché	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Towé	Aizo	*Persicaria senegalensis*	(Kunth) M. Gomez	Polygonaceae
Towèlikan	Cotafon	*Ipomoea aquatica*	Forssk.	Convolvulaceae
Towonto	Adja	*Emilia sonchifolia*	(L.) DC. Ex Wight	Asteraceae
Toyiman	Fon	*Psophocarpus palustris*	Desv.	Leguminosae-Papilionoideae
Toyovogboman	Cotafon	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Tumugu	Boko	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Tunwan	Bariba	*Vernonia sp.*		Asteraceae
Ukangu	Gourmantché	*Solanum macrocarpon*	L.	Solanaceae
Unkpéhoun	Ifè	*Ocimum basilicum*	L.	Lamiaceae
Unkpékaraman	Gourmantché	*Vernonia sp.*		Asteraceae
Unonbuboko	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Unranafunfunma	Anii	*Ehretia cymosa*	(Thonn.ex Schum.	Boraginaceae
Untchérima	Anii	*Piliostigma thonningii*	(Schumach.) Milne-Redh.	Leguminosae-Caesalpinioideae
Untcho	Ifè	*Corchorus tridens*	L.	Tiliaceae
Viohounda	Boko	*Corchorus olitorius*	L.	Tiliaceae
Viola	Boko	*Corchorus olitorius*	L.	Tiliaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Vo	Fon	*Ficus polita*	Vahl	Moraceae
Vo	Mahi	*Ficus polita*	Vahl	Moraceae
Vo	Fon	*Ficus sur*	Forssk.	Moraceae
Voi	Cotafon	*Momordica cissoides*	Planch.ex Benth.	Cucurbitaceae
Voman	Aizo	*Ficus thonningii*	Blume	Moraceae
Voman	Aizo	*Ficus trichopoda*	Baker	Moraceae
Vounvo	Aizo	*Celosia argentea*	L.	Amaranthaceae
Voyi	Adja	*Momordica cissoides*	Planch.ex Benth.	Cucurbitaceae
Waguiri	Bariba	*Moringa oleifera*	Lam.	Moringaceae
Wanwambago	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Waraou	Dendi	*Hibiscus sabdariffa*	L.	Malvaceae
Warima	Waama	*Ocimum gratissimum*	L.	Lamiaceae
Wèwèssou	Bariba	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Wianru	Bariba	*Cucurbita pepo*	L.	Cucurbitaceae
Windi Boundou	Dendi	*Moringa oleifera*	Lam.	Moringaceae
Windi Boundou	Dendi/ Djerma	*Moringa oleifera*	Lam.	Moringaceae
Windiboundou	Dendi	*Moringa oleifera*	Lam.	Moringaceae
Wlassi	Cotafon	*Melanthera scandens*	(Schumach.& Thonn.) Roberty	Asteraceae
Wlatchi	Adja	*Melanthera scandens*	(Schumach.& Thonn.) Roberty	Asteraceae
Wogoo	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Wonanvwe	Cotafon	*Hoslundia opposita*	Vahl	Lamiaceae
Wonto	Cotafon	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Wonto	Aizo	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Wontu	Adja	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Worougboho	Bariba	*Ammannia baccifera*	L.	Lythraceae
Worousolola	Boko	*Moringa oleifera*	Lam.	Moringaceae
Worri	Bariba	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Worri	Bariba	*Sesamum indicum*	L.	Pedaliaceae
Worukoho	Waama	*Ammannia baccifera*	L.	Lythraceae
Woso	Boko	*Moringa oleifera*	Lam.	Moringaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Wountchiinlaounkolé	Anii	*Cyphostemma adenocaule*	(Guill. & Perr.) Suess.	Vitaceae
Wowonnifa	Waama	*Ocimum sp.*		Lamiaceae
Wronwron	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Wronwronbago	Bariba	*Ocimum gratissimum*	L.	Lamiaceae
Wutchi	Tchabè	*Blighia sapida*	König	Sapindaceae
Xizixan	Mahi	*Vernonia colorata*	(Willd.) Drake	Asteraceae
Xwasse	Adja	*Boerhavia diffusa*	L.	Nyctaginaceae
Xwayoue	Cotafon	*Aspilia africana*	(Pers.) Adams	Asteraceae
Xwuecoute	Cotafon	*Manihot glaziovii*	Müll.Arg.	Euphorbiaceae
Yaaya	Kotokoli	*Rourea coccinea*	(Thonn.ex Schumach.) Benth	Connaraceae
Yabagassirou	Bariba	*Celosia argentea*	L.	Amaranthaceae
Yabonu	Bariba	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Yakiporiduya	Waama	*Celosia sp.*		Amaranthaceae
Yanayikpadja	Holly	*Jatropha curcas*	L.	Euphorbiaceae
Yanditiré	Waama	*Lagenaria siceraria*	(Molina) Standl.	Cucurbitaceae
Yandodoui	Adja	*Ocimum gratissimum*	L.	Lamiaceae
Yangutu	Waama	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Yannuyinnon	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Yannuyinnon	Bariba	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Yantoto	Fon	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Yantoto	Mahi	*Launaea taraxacifolia*	(Willd.) Amin ex C. Jeffrey	Asteraceae
Yaran'duya	Waama	*Stachytarpheta indica*	(L.) Vahl	Verbenaceae
Yaro	Bariba	*Vitex doniana*	Sweet	Verbenaceae
Yayakrombou	Bariba	*Luffa aegyptiaca*	(L.) M. Roem.	Cucurbitaceae
Yayin	Waama	*Citrullus lanatus*	(Thunb.) matsum. & Nakai	Cucurbitaceae
Yayinnon	Waama	*Senna occidentalis*	(L.) Link	Leguminosae-Caesalpinioideae
Yèbè	Holly	*Solanum americanum*	Mill.	Solanaceae
Yèkodiè	Otammari	*Solanum*	L.	Solanaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
		aethiopicum		
Yèkotenko	Otammari	*Colocasia esculenta*	(L.) Schott	Araceae
Yènurè	Otammari	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Yèsoso	Otammari	*Luffa acutangula*	(L.) Roxb.	Cucurbitaceae
Yètookpèrè	Otammari	*Adansonia digitata*	L.	Bombacaceae
Yewonto	Cotafon	*Emilia sonchifolia*	(L.) DC. Ex Wight	Asteraceae
Yêyiman	Cotafon	*Centrosema plumieri*	(Turpin ex Pers.) Benth.	Leguminosae-Papilionoideae
Yifaayéyi	Otammari	*Corchorus tridens*	L.	Tiliaceae
Yifoliunfoni	Gourmantché	*Commelina diffusa*	Burm.f.	Commelinaceae
Yiman	Cotafon	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Yimanni	Gourmantché	*Abelmoschus esculentus*	(L.) Moench.	Malvaceae
Yinkitiumpu	Waama	*Sphenostylis schweinfurthii*	Harms	Leguminosae-Papilionoideae
Yinrike	Bariba	*Corchorus tridens*	L.	Tiliaceae
Yinrikuntu	Waama	*Vitex doniana*	Sweet	Verbenaceae
Yinsinkin	Mahi	*Momordica charantia*	L.	Cucurbitaceae
Yinya	Fon	*Lippia multiflora*	Moldenke	Verbenaceae
Yiviman	Aizo	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Yodo	Dendi/ Djerma	*Ceratotheca sesamoides*	Endl.	Pedaliaceae
Yodou	Bariba	*Lannea acida*	A.Rich. S.l.	Anacardiaceae
Yogoti	Bariba	*Annona senegalensis*	Pers.	Annonaceae
Yonbita	Waama	*Amaranthus cruentus*	L.	Amaranthaceae
Yonbita	Waama	*Amaranthus dubius*	Mart. Ex Thell.	Amaranthaceae
Yonbtèna	Waama	*Amaranthus cruentus*	L.	Amaranthaceae
Yonguitu	Waama	*Vigna unguiculata*	(L.) Walp.	Leguminosae-Papilionoideae
Yonman	Waama	*Amaranthus cruentus*	L.	Amaranthaceae
Yonni	Boko	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Yooda	Boko	*Basella alba*	L.	Basellaceae
Yoriarikoobu	Waama	*Acmella oleracea*	(Sw.) Cass.	Asteraceae
Yorikungufa	Waama	*Moringa oleifera*	Lam.	Moringaceae
Yoritampobu	Waama	*Acmella oleracea*	(Sw.) Cass.	Asteraceae
Yoro Ara	Bariba	*Moringa oleifera*	Lam.	Moringaceae
Yoroukpé	Bariba	*Basella alba*	L.	Basellaceae

Local Name	Linguistic group	Scientific name	Authorship	Family
Yorouyara	Bariba	*Moringa oleifera*	Lam.	Moringaceae
Yorouyara	Bariba	*Moringa oleifera*	Lam.	Moringaceae
Youbna	Kotokoli	*Opilia amentacea*	Roxb.	Opiliaceae
Younkpotoun	Aizo	*Jatropha gossypiifolia*	L.	Euphorbiaceae
Yovogbomangbémè	Cotafon	*Talinum triangulare*	(Jacq.) Willd.	Portulacaceae
Yovogbomanhouégbé	Cotafon	*Basella alba*	L.	Basellaceae
Yovoglassi	Aizo	*Basella alba*	L.	Basellaceae
Yovoglassiman	Aizo	*Euphorbia heterophylla*	L.	Euphorbiaceae
Yovokpatin	Aizo	*Moringa oleifera*	Lam.	Moringaceae
Yovokpatin	Mahi	*Moringa oleifera*	Lam.	Moringaceae
Yovokpatin	Oueme	*Moringa oleifera*	Lam.	Moringaceae
Yoyo	Idatcha	*Corchorus olitorius*	L.	Tiliaceae
Yoyogunan	Boko	*Corchorus olitorius*	L.	Tiliaceae
Yoyokun	Bariba	*Corchorus olitorius*	L.	Tiliaceae
Yoyora	Waama	*Corchorus olitorius*	L.	Tiliaceae
Yraha	Idatcha	*Uvaria chamae*	P. Beauv.	Annonaceae
Yroyrogou	Bariba	*Corchorus olitorius*	L.	Tiliaceae
Yroyrokou	Bariba	*Corchorus olitorius*	L.	Tiliaceae
Za	Fon	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Zaa	Boko	*Cissus populnea*	Guill. & Perr.	Vitaceae
Zaman	Adja	*Daniellia oliveri*	(Rolfe) Hutch. & Dalziel	Leguminosae-Caesalpinioideae
Zanla	Boko	*Cissus populnea*	Guill. & Perr.	Vitaceae
Zebligohoun	Aizo	*Macrosphyra longistyla*	(DC.) Hiern	Rubiaceae
Zibibéri	Dendi	*Boerhavia erecta*	L.	Nyctaginaceae
Ziman	Cotafon	*Combretum mucronatum*	Schumach. & Thonn	Combretaceae
Zinzoun	Cotafon	*Adansonia digitata*	L.	Bombacaceae
Zohan	Mahi	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Zohan	Mahi	*Cucumeropsis mannii*	Naud	Cucurbitaceae
Zomali	Adja	*Ehretia cymosa*	(Thonn.ex Schum.	Boraginaceae
Zoula	Boko	*Commelina benghalensis*	L.	Commelinaceae
Zounzon	Mahi	*Adansonia digitata*	L.	Bombacaceae
	Otammari	*Vernonia cinerea*	(L.) Less.	Asteraceae

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