iJRASET

International Journal For Research in
Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 7 Issue: II Month of publication: February

DOI: <http://doi.org/10.22214/ijraset.2019.2166>

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A Review on Plant Family: ARACEAE

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Abstract: A plant family is just an accumulation of plants that share characteristics gathered together. Plants can be sorted by similar features, including overall appearance, seed groupings, bloom shape, and more, to demonstrate their relationship to each other. This article comprises of study of family Araceae.

Keywords: Family, features, appearance, bloom

I. INTRODUCTION

The Araceae are group of monocotyledonous blooming plants in which blooms are borne on a kind of inflorescence called a spadix. The spadix is normally joined by, and in some cases mostly encased in, a spathe or leaf-like bract. It is also known as arum family, members are frequently informally known as aroids. This family of 125 genera and about 3800 known species is most diverse in the New World tropics, although also distributed in the Old World tropics and northern temperate regions.¹

A. Scientific Classification

Kingdom	:	Plantae	:	Plants
Subkingdom	:	Tracheobionta	:	Vascular Plants
Superdivision	:	Spermatophyta	:	Seed Plants
Division	:	Magnoliophyta	:	Flowering Plants
Class	:	Liliopsida	:	Monocotyledons
Subclass	:	Arecidae		
Order	:	Arales		
Family	:	Araceae	:	Arum Family ^{2, 3}

B. Description

Species in this family are cormous or rhizomatous or tuberous herbs; root climbers in damp forests, usually with calcium oxalate crystals or raphides and commonly with milky or watery sap (latex). The leaves can change impressively from species to species. The leaves are exchange, simple or compound, petiolate, once in a while extremely extensive, and generally with a sheathing base. Leaves are often somewhat fleshy; commonly partially enveloped by a bract or spathe which is sometimes petaloid or brightly colored.

The flowers are small, actinomorphic, bisexual or unisexual, and are sessile or sometimes embedded in the floral axis. Flowers are often smelly, exhibiting a fly-pollination syndrome. The perianth is almost constantly missing in unisexual blossoms yet in cross-sexual blooms regularly comprises of 4-6 little, undifferentiated tepals that are free or connate. The androecium of a normal male blossom as a rule comprises of 2, 4, or 8 unmistakable or differently connate stamens that are inverse the tepals when these are available.

The gynoecium of an ordinary female blossom comprises of a solitary compound pistil of generally 3 however up to 15 carpels, a solitary style, and a prevalent ovary with sometimes one locule and 1-numerous parietal ovules or more frequently 3 or more locules, each with 1-numerous axile-apical to axile-basal ovules. Fruits are fleshy or non fleshy; indehiscent or dehiscent and or a berry, or a drupe, or a nut. Seeds are albuminous, embedded in mucilaginous pulp or exalbuminous.⁴⁻⁹

C. Distribution

It is found in Sub-tropical, tropical and temperate (relatively few) places. It has great diversity in the tropics, especially the New World. It is also native to India. About 29 genera and 152 species have been reported from India. Aglaonema, Alocasia, Amorphophallus, Anaphyllum, Ariopsis, Arisaema, Arum, Colocasia, Cryptocoryne, Homalomena, Lagenandra, Lasia, Pistia, Pothos, Remusatia, Rhaphidophora, Sauromatum, Scindapsus, Steudnera, Theriophonum, Typhonium etc. are the genera found in India.⁸⁻¹⁰

D. Toxicity

Within the Araceae, genera such as *Alocasia*, *Arisaema*, *Caladium*, *Colocasia* and *Philodendron* contain calcium oxalate crystals in the form of raphides. Whenever consumed, these may cause edema, vesicle formation, and dysphagia joined by excruciating stinging and consuming to the mouth and throat, with side effects happening for as long as about fourteen days after ingestion.¹¹

E. Economic Uses

The family furnishes numerous horticultural ornamentals, especially for indoors like *Pothos aureus* (Money plant), *Monstera deliciosa*, *Alocasia indica* Var. *metallica*, *Caladium picturatum*, *C. bicolor*, *Colocasia esculenta*, *Scindapsus officinalis*, *Anthurium* and *Pistia* spp. . Different plants of this family are cultivated for vegetables, for example, *Colocasia esculenta* (Arvi, Kachalu or Colocasia); *Alocasia indica* (Mankand), *Amorphophallus campanulatus* (Zimikand or elephant foot). Leaves of *Lasia spinosa* and *Sauromatum venosum* are eaten as food. The large fruits of *Monstera* are eaten in many tropical regions. From the tubers of *Colocasia esculenta*, the starchy baby foods and liquor (alcohol) are also prepared. The rhizomes of *Acorus calamus* are used in diarrhoea and dyspepsia. The stem juice of *Alocasia macrorrhiza* is utilized to alleviate torment in scorpion bite. The corns of *Amorphophallus campanulatus* are used in treating piles and dysentery. *Sauromatum guttaum* tubers are used as a stimulating poultice. Some species are of medicinal use or are used as arrow poisons.¹²⁻¹⁵

Various plants are there which belongs to Araceae family. List of plants belonging to family Araceae in India with their synonyms and distribution according to Botanical Survey of India, Ministry of Environment and Forest & Climate Change, Government of India are given below:

Table No. 1. : List of plants belonging to family Araceae in India with their synonyms and distribution according to Botanical Survey of India, Ministry of Environment and Forest & Climate Change, Government of India

Genus	Plant	Synonyms	Distribution
Acorus	Acorus calamus	-	Throughout India
	Acorus gramineus	-	E. Himalaya, N.E. India.
Aglaonema	Aglaonema birmanicum	-	N.E. India.
	Aglaonema commutatum	-	E. India.
	Aglaonema hookerianum	Aglaonema clarkei	N.E. India.
	Aglaonema nicobaricum	-	Andaman & Nicobar Islands.
	Aglaonema simplex	-	Andaman & Nicobar Islands.
Alocasia	Alocasia acuminata	-	N.E. India.
	Alocasia cucullata	Arum cucullatum	E. & N.E. India.
	Alocasia decipiens	Arum fornicatum	Andaman & Nicobar Islands.
	Alocasia fallax	-	E. Himalaya, E. & N.E. India.
	Alocasia fornicata	Arum fornicatum	E. & N.E. India.
	Alocasia macrorrhiza	Arum macrorrhizon	Tropical & Subtropical India.
	Alocasia indica		
	Alocasia montana	Arum montanum	E. India.
	Alocasia navicularis	Colocasia navicularis	E. & N.E. India.
	Alocasia odora	Arum odorum	N.E. India.
Amorphophallus	Amorphophallus blumei	Amorphophallus onocophyllus	Andaman & Nicobar Islands.
	Amorphophallus bulbifer	Arum bulbiferum	E. & N.E. India.
		Conophallus tuberculiger	
		Amorphophallus tuberculiger	
	Amorphophallus carnosus	-	Andaman & Nicobar

	Amorphophallus commutatus	Conophallus commutatus	Islands. Peninsular India.
	Amorphophallus dubius	-	S. & E. India.
	Amorphophallus hohenackeri	Raphidophyllus hohenackeri	S. India.
	Amorphophallus longistylus	-	Andaman & Nicobar Islands.
	Amorphophallus mysorensis	-	S. India.
	Amorphophallus paeoniifolius	Dracontium paeoniifolium	S.& E. India.
		Amorphophallus campanulatus	
		Amorphophallus campanulatus	
		Arum campanulatum	
		Amorphophallus campanulatus	
	Amorphophallus sylvaticus	Arum sylvaticum	Peninsular & E. India.
		Synantherias sylvatica	
Anaphyllum	Anaphyllum beddomei	-	S. India.
	Anaphyllum wightii	-	S. India.
Ariopsis	Ariopsis peltata	Remusatia vivipara sensu	Peninsular & N.E India, Subtropical Himalaya.
Arisaema	Arisaema album	-	N.E. India.
	Arisaema amurense	-	E. Himalaya.
	Arisaema attenuatum	-	S. India.
	Arisaema auriculatum	-	S. India.
	Arisaema barnesii	-	S. India.
	Arisaema caudatum	Arisaema longicaudatum	Peninsular India.
	Arisaema concinnum	Arisaema concinnum	Temperate Himalaya.
	Arisaema consanguineum	-	Himalaya, N.E. India.
	Arisaema costatum	Arum costatum	Himalaya.
	Arisaema cuspidatum	Arum cuspidatum	N.E. India; Bhutan.
		Arisaema roxburghii	
	Arisaema decipiens	-	E. Himalaya, N.E. India.
	Arisaema echinatum	Arum echinata	Temperate C. to E. Himalaya.
	Arisaema erubescens	Arum erubescens	Temperate C. to E. Himalaya.
	Arisaema exappendiculatum	-	Nepal.
	Arisaema exile	-	Temperate C. to E. Himalaya.
	Arisaema flavum	Arum flavum	Temperate Himalaya.
	Arisaema fraternum	-	N.E. India.
	Arisaema galeatum	-	E. India, E. Himalaya.

	Arisaema griffithii	Arisaema verrucosum	Temperate C. to E. Himalaya, N.E. India.
		Arisaema pradhanii	
	Arisaema intermedium	Arisaema biflagellatum	Temperate Himalaya.
	Arisaema jacquemontii	-	Temperate Himalaya, N.E. India.
	Arisaema kunstleri	-	N. to E. India.
	Arisaema leschenaultii	Arisaema pulchrum	Peninsular India, N.W. Himalaya.
		Arisaema erubescenssensu	
	Arisaema murrayi	Arum murrayi	Peninsular India.
	Arisaema nepenthoides	Arum nepenthoides	Temperate C. to E. Himalaya, N.E. India.
	Arisaema ochraceum	-	Temperate E. Himalaya.
	Arisaema ostiolatum	-	C. to E. Himalaya.
	Arisaema peltatum	-	S. India.
	Arisaema petiolulatum	Arisaema listeri	E. Himalaya, N.E. India.
	Arisaema propinquum	Arisaema sikkimensis	Temperate Himalaya.
		Arisaema wallichianum	
		Arisaema costatumsensu	
	Arisaema psittacus	-	S. India.
	Arisaema rhizomatum	-	E. Himalaya, N.E. India.
	Arisaema sarracaenioides	-	S. India.
	Arisaema setosum	-	E. Himalaya.
	Arisaema speciosum	Arum speciosum	Temperate Himalaya.
		Arisaema eminens	
		Arisaema mirabile	
	Arisaema tortuosum	Arum tortuosum	Peninsular, Himalaya, Tamil Nadu
		Arisaema helleborifolium	
		Arisaema neglectum	
		Arum curvatum	
		Arisaema curvatum	
		Arisaema Steudelii	
		Arisaema tortuosumsensu	
	Arisaema translucens	-	Tamil Nadu (Nilgiris).
	Arisaema tuberculatum	Arisaema convolutum	Tamil Nadu (Nilgiris).
	Arisaema tylophorum	Arisaema wightii	Tamil Nadu (Nilgiris).
	Arisaema utile	-	Himalaya.
	Arisaema vexillatum	-	Nepal.

	Arisaema wattii	-	E. Himalaya, N.E. India.
	Arisaema wightii	-	S. India.
Arum	Arum jacquemontii		N.W. Himalaya.
Caladium	Caladium bicolor	Arum bicolor	Naturalised in S. India.
Colocasia	Colocasia affinis	-	E. to C. Himalaya, N.E. India.
	Colocasia esculenta	Arum esculentum	Throughout India.
		Colocasia antiquorum	
		Colocasia antiquorum	
		Colocasia nymphaeifolium	
	Colocasia fallax	-	E. to C. Himalaya, N.E. India.
	Colocasia mannii	-	N.E. India, Andaman & Nicobar Islands.
	Colocasia virosa	Calla virosa	S. & E. India.
Cryptocoryne	Cryptocoryne ciliata	Ambrosia ciliata	Peninsular & E. India, Andaman & Nicobar Islands.
	Cryptocoryne cognata	-	Peninsular India.
	Cryptocoryne cognatoides	-	S. India.
	Cryptocoryne consobrina	-	Peninsular India.
	Cryptocoryne gomezii	-	E. India.
	Cryptocoryne meeboldii	Lagenandra meeboldii	Peninsular India.
	Cryptocoryne retorspiralis	Ambrosinia retorspiralis	Tropical India.
		Cryptocoryne dalzellii	
		Cryptocoryne unilocularis	
		Cryptocoryne roxburghii	
	Cryptocoryne spiralis	Arum spirale	Peninsular & E. India.
		Cryptocoryne huegelii	
		Cryptocoryne tortuosa	
	Cryptocoryne wightii	-	S. India.
Epipremnum	Epipremnum meeboldii	-	N.E. India.
	Epipremnum pinnatum	Pothos pinnata	Andaman & Nicobar Islands.
		Epipremnum mirabile	
Gonatanthus	Gonatanthus ornatus	-	E. Himalaya, N.E. India.
	Gonatanthus pumilus	Caladium pumilum	Temperate Himalaya, N.E. India.
		Gonatanthus sarmentosus	
Homalomena	Homalomena aromatica	Calla aromatica	N.E. India.
	Homalomena cordata	-	Andaman & Nicobar Islands.

	Homalomena griffithii	Chamaecladon ovariurn	Andaman & Nicobar Islands.
	Homalomena nutans	-	Andaman & Nicobar Islands.
	Homalomena obliquata	Chamaecladon obliquatum	Andaman & Nicobar Islands.
	Homalomena pendula	Caladium pendulum	E. Himalaya, N.E. India.
		Calla rubescens	
		Homalomena rubescens	
Lagenandra	Lagenandra nairii	-	S. India.
	Lagenandra ovata	Arum ovatum	Peninsular India.
	Lagenandra toxicaria	Lagenandra ovata	Peninsular India.
	Lagenandra undulata	-	N.E. India, E. Himalaya.
Lasia	Lasia spinosa	Dracontium spinosum	Not reported
		Pothos heterophyllum	
		Lasia heterophylla	
Pistia	Pistia stratiotes	-	Throughout India.
Plesmonium	Plesmonium margaritifera	Arum margaritifera	N. to E. India.
Pothos	Pothos aromaticus	-	S. India.
	Pothos cathartii	-	Tropical Himalaya, E. & N.E. India.
	Pothos macrocephalus	-	Andaman & Nicobar Islands.
	Pothos roxburghii	Pothos scandens	N.E. India, Andaman & Nicobar Islands.
	Pothos scandens	Pothos cognatus	Throughout India.
	Pothos thomsonianus	-	S. India.
	Pothos vriesianus	-	E. Himalaya.
Pythonium	Pythonium ecaudatum	-	E. Himalaya.
Remusatia	Remusatia hookeriana	-	Temperate Himalaya, N.E. India.
	Remusatia vivipara	Arum viviparum Calodium viviparum	Peninsular & E. India, subtropical Himalaya.
Raphidophora	Raphidophora affinis	-	N.E. India.
	Raphidophora calophyllum	Raphidophora lancifolia	E. Himalaya, N.E. India.
		Raphidophora peepla	
	Raphidophora decursiva	Pothos decursiva	Peninsular to E. India, Tropical Himalaya.
		Scindapsus decursivus	
		Raphidophora eximia	
	Raphidophora glauca	Pothos glaucus	Tropical & subtropical Himalaya, N.E. India.
	Raphidophora grandis	Raphidophora eximia	N. to E. & N. E. India, E. Himalaya.

	Rhaphidophora honkongensis	Rhaphidophora schottii	N. E. India.
	Rhaphidophora hookeri	-	Throughout N. E. India, Himalaya.
	Rhaphidophora korthalsii		E. Himalaya.
	Rhaphidophora peepla	Pothos peepla	E. Himalaya, N.E. India.
	Rhaphidophora pertusa	Pothos pertusa	Peninsular India, Andaman & Nicobar Islands.
Sauromatum	Sauromatum brevipes	Typhonium brevipes	Temperate Himalaya, E. India.
	Sauromatum pedatum	Arum pedatum	Peninsular & N.E. India, Himalaya, upper Gangetic plains.
		Arum venosum	
		Arum guttatum	
		Sauromatum venosum	
	Sauromatum guttatum		
Scindapsus	Scindapsus cuscuaria	Pothos cuscuaria	Andaman & Nicobar Islands.
	Scindapsus officinalis	Pothos officinalis	E. & N.E. India, Andaman & Nicobar Islands, Tropical Himalaya.
Steudnera	Steudnera assamica	-	N.E. India.
	Steudnera colocasioides	Steudnera virosa	E. Himalaya, N.E. India.
	Steudnera discolor	-	Not reported
	Steudnera gagei	-	N.E. India.
	Steudnera griffithii	-	E. Himalaya & N.E. India.
Therophonum	Therophonum dalzellii	Tapinocarpus indicus	Peninsular India.
		Therophonum indicum	
		Therophonum uniseriatum	
	Therophonum fischeri	-	S. India.
	Therophonum infaustum	-	S. India.
	Therophonum minutum	Arum minutum	Peninsular & E. India.
		Arum crenatum	
		Therophonum crenatum	
		Therophonum zeylanicum	
		Therophonum minutum	
		Therophonum wightii	
	Therophonum sivaganganum	Pauella sivagangana	S. India.
Thomsonia	Thomsonia hookeri	Allopythion hookeri	N.E. India.
	Thomsonia nepalensis	-	Tropical Himalaya, N.E. India.
Typhonium	Typhonium bulbiferum	-	Peninsular India.

	Typhonium diversifolium	Typhonium huegelianum	Temperate Himalaya.
	Typhonium flagelliforme	Arum flagelliforme	Peninsular to E. & N.E. India, Andaman & Nicobar Islands.
		Arum cuspidatum	
		Typhonium cuspidatum	
		Typhonium divaricatum	
		Typhonium incurvatum	
	Typhonium foliolosum	Heterostalis foliolosa	Temperate W. Himalaya.
	Typhonium gracile	Arum gracile	N.W. & N.E. India.
	Typhonium inopinatum	-	E. India.
	Typhonium listeri	-	N.E. India.
	Typhonium roxburghii	Typhonium mottleyanum	S. & E. India.
		Typhonium schottii	
		Typhonium trilobatum	
		Typhonium amboinense	
	Typhonium trilobatum	Arum trilobatum	Peninsular, E. & N.E. India.
	Typhonium uniseriatum	-	S. India.
Zantedeschia	Zantedeschia aethiopica	Calla aethiopica	Tamil Nadu. ⁹

II. CONCLUSION

Plant families are the level of the taxonomic hierarchy that many researchers use to organize their understanding of plant diversity. Consequently, from many perspectives, it is very useful to be able to recognize the major plant families 'on sight'. In this study, common facts about plant family Araceae have been described.

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