Contributions to the Knowledge on the Amphibians and Reptiles of Ialomița County (South-Eastern Romania)

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Abstract. The results of faunistical and ecological surveys of the amphibians in Ialomița County (Romania) are presented here; 12 amphibian species were identified, two amphibian hybrids and five reptile species, with new records for many of those.

Key words: Ialomița County, amphibians, reptiles, localities, distribution.

INTRODUCTION

Although the last decades have seen a general flourishing of herpetological studies in Romania, Ialomița County is among the least investigated area in terms of distribution records for amphibian and reptile species. The analysis of existant records (Fuhn, 1960; Fuhn & Vancea, 1961; Iftime & Iftime, 2007; Covaciu-Marcov et al., 2009; Sos, 2011; Cogălniceanu et al., 2013a, b; Székely et al., 2013; Sahlean et al., 2014; Török, 2014; Wielstra et al., 2016), shows that although despite the records of numerous species (*Triturus dobrogicus*, *Lissotriton vulgaris*, *Bombina bombina*, *Pelobates fuscus*, *P. syriacus*, *Bufo bufo*, *Bufo viridis*, *Hyla orientalis*, *Pelophylax ridibundus*/P. kl. *esculentus*, *P. lessonae*, *Emys orbicularis*, *Lacerta agilis*, *L. viridis*, *Podarcis tauricus*, *Dolichophis caspius*, *Natrix natrix*, *N. tessellata*), practically all of them are concentrated in the Danube floodplain and its immediate vicinity in the east of the county (Török, 2001; Covaciu-Marcov et al., 2009; Cogălniceanu et al., 2013a, b); the few data pertaining to the western and central Ialomița plain are generally old, with the exception of a string of new records of *Emys orbicularis* along Ialomița River (Sos, 2011; Cogălniceanu et al., 2013b). We present new records of herpetofaunal species from Ialomița County (in order to concentrate on the less investigated Ialomița valley plain, we excluded “Balta Ialomiței”, an area of largely modified floodplain enclosed between two arms of the Danube).

MATERIALS AND METHODS

This paper is based upon field work performed in June 2011, August 2015, March–July 2016 and March 2017 (the search effort not being equal in all investigated points, nor necessarily adequate for the detectability of all potentially present species, absence of a species from a point should not be considered as absolute). The recordings summarizing 105 points that can be grouped into 76 localities or study areas (see table 1; there may be more than one recording point per locality). Qualitative observations

were undertaken using the active transects method, combining visual and acoustic identification (after Heyer et al., 1994, and McDiarmid, 1992, in Cogălniceanu, 1997), the transect being 4 m wide. For the genus *Rana*, subgenus *Pelophylax* (i.e. “Green Frogs” or “West Palaearctic Water Frogs”) specific identification was performed using morphological and morphometrical characteristics and song-based identification if possible. Photographs were taken whenever possible.

RESULTS

The results are included in table 1, with species found tabulated for every location.

Table 1

Locations and species (note: GPS altitude indications below 10 m were noted as such and not given exactly, they are likely imprecise since the lowest altitudes in the county are ca. 7-10 m – Măciu et al., 1982).

Locality	Coordinates		Observed species/hybrids
A2 highway near Fetești	N44 23.867 E27 48.963	47 m	<i>Dolichophis caspius</i>
Coșereni	N 44 40.578 E 26 33.306	45 m	<i>Dolichophis caspius</i>
Coșereni	N44 41.904 E26 34.313	45 m	<i>Rana dalmatina</i> , <i>Pelophylax ridibundus</i>
Piersica	N44 33.564 E27 00.538	49 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>Lacerta agilis</i> , <i>L. viridis</i> , <i>Dolichophis caspius</i>
Piersica	N44 34.071 E26 59.858	34 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Piersica	N44 33.930 E27 00.648	30 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Hyla orientalis</i>
Axintele	N44 37.077 E26 43.063	66 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>P. syriacus</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i>
Axintele	N44 36.887 E26 44.241	47 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Axintele	N 44 36.279 E 26 45.638	ca. 50 m	<i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i> , <i>L. agilis</i>
Crăsanii de Sus – Călugărului forest	N44 35.893 E26 48.856	75 m	<i>Lacerta viridis</i>
Sărățeni	N44 37.793 E26 54.232	36 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelophylax ridibundus</i>
Sărățeni	N 44 37.537 E 26 54.899	36 m	<i>Triturus dobrogicus</i> , <i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Dolichophis caspius</i>
Sărățeni	N 44 37.500 E 26 56.305	36 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Lacerta agilis</i> , <i>Natrix natrix</i>
Căzănești	N44 37.661 E26 58.608	32 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>P. syriacus</i> , <i>Hyla orientalis</i> , <i>Pelophylax ridibundus</i>
Orezu	N44 35.441 E27 02.363	29 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Hyla orientalis</i> , <i>Rana dalmatina</i> , <i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i> , <i>Dolichophis caspius</i>
Marsilienii	N44 32.592 E27 04.887	27 m	<i>Bombina bombina</i> , <i>Hyla orientalis</i> , <i>Pelophylax ridibundus</i>

Table 1 (continued)

Locality	Coordinates		Observed species/hybrids
Marsilienii	N44 32.169 E27 04.793	25 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Pelophylax ridibundus</i>
Ciochina	N44 34.926 E27 02.918	28 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Hyla orientalis</i> , <i>Rana dalmatina</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> ?, <i>Lacerta viridis</i> , <i>Dolichophis caspius</i>
Bordușelu	N44 32.724 E27 04.001	25 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>Dolichophis caspius</i>
Albești/Buești	N44 32.559 E27 09.738	24 m	<i>Triturus dobrogicus</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Hyla orientalis</i> , <i>Pelophylax ridibundus</i> , <i>P. lessonae</i> , <i>Lacerta viridis</i> , <i>Natrix natrix</i>
Bucu/Mărculești	N44 34.950 E27 30.370	11 m	<i>Lacerta viridis</i>
Scânteia	N44 42.129 E27 28.553	28 m	<i>Bombina bombina</i> , <i>Bufo viridis</i>
Scânteia	N44 42.899 E27 28.237	13 m	<i>Pelophylax ridibundus</i>
Iazu	N44 43.842 E27 24.144	17 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Iazu	N44 42.209 E27 25.141	32 m	<i>Natrix natrix</i>
Smirna	N44 43.177 E27 20.331	16 m	<i>Bufo viridis</i>
Malu	N 44 39.054 E 26 49.132	ca. 40 m	<i>Bufo viridis</i>
Ion Roată	N 44 39.774 E 26 47.372	ca. 40 m	<i>Bufo viridis</i>
Broșteni	N44 40.139 E26 45.076	37 m	<i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Stelnică	N44 24.812 E27 53.255	bellow 10 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i>
Stelnică	N44 25.559 E27 55.260	bellow 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i>
Stelnică	N44 25.912 E27 55.382	bellow 10 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i>
Cegani	N44 26.472 E27 55.433	bellow 10 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>P. lessonae</i>
Cegani	N44 26.683 E27 55.645	bellow 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Cegani	N44 26.802 E27 55.275	bellow 10 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Natrix natrix</i>
Cegani	N44 27.233 E27 54.477	bellow 10 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i>
Bordușani	N44 28.635 E27 54.625	bellow 10 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Hyla arborea</i> , <i>Pelophylax ridibundus</i>
Bordușani	N44 28.544 E27 55.369	bellow 10 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Natrix natrix</i>

Table 1 (continued)

Locality	Coordinates	Observed species/hybrids
Borduşani	N44 28.431 E27 55.842 bellow 10 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i>
Progresu	N44 35.079 E27 52.857 bellow 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Progresu	N44 35.369 E27 53.144 bellow 10 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Emys orbicularis</i> , <i>Lacerta viridis</i> , <i>L. agilis</i>
Progresu	N44 35.672 E27 53.412 bellow 10 m	<i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i> , <i>L. agilis</i>
Progresu	N44 36.367 E27 54.106 bellow 10 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>Podarcis taurica</i> , <i>Lacerta viridis</i>
Movila	N44 30.938 E27 44.119 47 m	<i>Lacerta viridis</i> , <i>Natrix natrix</i>
Movila	N44 32.263 E27 40.959 39 m	<i>Lacerta viridis</i>
Mihail Kogălniceanu	N44 39.993 E27 42.187 bellow 10 m	<i>Bufo viridis</i> , <i>Hyla orientalis</i> , <i>Pelophylax ridibundus</i>
Gura Ialomiței	N44 42.116 E27 45.769 bellow 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelobates syriacus</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>Lacerta agilis</i> , <i>Natrix natrix</i>
Luciu	N44 45.375 E27 43.471 bellow 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelobates fuscus</i> , <i>P. syriacus</i>
Oraşu de Floci Archeological Reservation	N44 41.586 E27 49.320 bellow 10 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>Emys orbicularis</i>
Giurgeni	N44 42.177 E27 51.129 bellow 10 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Hyla orientalis</i> , <i>Pelophylax ridibundus</i> , <i>P. lessonae</i> , <i>Lacerta agilis</i>
Țândărei	N44 38.334 E27 37.451 bellow 10 m	<i>Bombina bombina</i>
Ograda	N44 37.357 E27 35.065 bellow 10 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i>
Slobozia	N44 34.915 E27 20.194 44 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Emys orbicularis</i> , <i>Lacerta agilis</i>
Amara	N44 36.324 E27 19.763 22 m	<i>Lacerta viridis</i> , <i>Lacerta agilis</i>
Grivița	N44 43.325 E27 18.286 31 m	<i>Pelophylax ridibundus</i>
Miloșești	N44 41.873 E27 12.588 43 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelophylax ridibundus</i>
Gheorghe Doja	N44 36.883 E27 09.724 42 m	<i>Bufo viridis</i> , <i>Emys orbicularis</i>
Cocora	N44 43.456 E27 03.295 46 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i>
Cocora	N44 44.865 E27 01.725 55 m	<i>Triturus dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Lacerta agilis</i>
Colelia	N44 45.433 E26 59.005 55 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i>

Table 1 (continued)

Locality	Coordinates	Observed species/hybrids
Valea Măcrișului	N44 44.310 E26 50.593 54 m	<i>Triturus dobrogicus</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelobates fuscus</i>
Movilița	N44 37.953 E26 27.573 68 m	<i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>Lacerta viridis</i>
Movilița – Stroiasca I forest	N44 39.009 E26 26.753 72 m	<i>Bufo viridis</i> ?, <i>Rana dalmatina</i>
Movilița – Stroiasca II forest	N 44 38.469 E 26 25.997 ca. 70 m	<i>Bufo viridis</i> , <i>Lacerta viridis</i>
Dridu – Stroiasca I forest	N44 40.128 E26 26.393 70 m	<i>Bufo viridis</i> , <i>Rana dalmatina</i>
Dridu	N44 42.403 E26 28.464 61 m	<i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>Lacerta agilis</i>
Fierbinți-Târg	N44 40.716 E26 24.379 62 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>Natrix natrix</i>
Rădulești (Brazii)	N44 45.885 E26 21.784 72 m	<i>Pelophylax ridibundus</i> , <i>P. lessonae</i> , <i>P. kl. esculentus</i>
Near Rădulești (Brazii) – Prahova county, on limit	N44 46.232 E26 22.325 69 m	<i>Bombina variegata</i>
Rădulești (Brazii)	N44 45.702 E26 22.136 65 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>P. lessonae</i> , <i>P. kl. esculentus</i> , <i>Emys orbicularis</i> , <i>Lacerta viridis</i>
Patru Frați	N44 44.629 E26 27.764 56 m	<i>Lacerta viridis</i>
Moldoveni – Leașa Forest	N44 42.998 E26 29.345 53 m	<i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i>
Moldoveni-Coșereni	N 44 42.720 E 26 32.581 ca. 50 m	<i>Lacerta viridis</i>
Moldoveni-Coșereni	N 44 42.811 E 26 32.108 ca. 50 m	<i>Rana dalmatina</i> , <i>Pelophylax ridibundus</i> , <i>Triturus cristatus</i>
Bărbulești	N44 43.284 E26 36.259 39 m	<i>Pelophylax ridibundus</i> , <i>Lacerta agilis</i>
Armășești	N44 44.483 E26 34.463 42 m	<i>Triturus cristatus</i> x <i>T. dobrogicus</i> , <i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> ,
Slătioarele	N44 46.981 E26 31.401 51 m	<i>Pelophylax ridibundus</i>
Adâncata	N44 46.765 E26 26.884 25 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Lacerta viridis</i>
Rodeanu Lake	N44 47.034 E26 29.477 53 m	<i>Bombina bombina</i> , <i>Bufo viridis</i>
Roșiori	N44 36.378 E26 32.637 56 m	<i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Bufo viridis</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i> , <i>Emys orbicularis</i>
Drăgoești	N44 34.290 E26 32.640 44 m	<i>Bufo viridis</i> , <i>Pelophylax ridibundus</i>
Chiroiu	N44 35.966 E26 30.736 53 m	<i>Pelophylax ridibundus</i>
Livedea	N44 35.404 E26 25.539 59 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i>

Table 1 (continued)

Locality	Coordinates	Observed species/hybrids
Livedea	N44 35.201 E26 25.741 60 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Emys orbicularis</i>
Hagiești	N44 32.891 E26 25.718 45 m	<i>Pelophylax ridibundus</i> , <i>Emys orbicularis</i> , <i>Natrix natrix</i>
Boteni	N44 33.976 E26 26.861 47 m	<i>Pelophylax ridibundus</i>
Lilieci	N44 32.388 E26 23.338 63 m	<i>Lacerta agilis</i>
Lilieci/Cătrunești	N44 33.437 E26 22.907 47 m	<i>Pelophylax ridibundus</i> , <i>Emys orbicularis</i>
Urziceni –Cotorca Lake	N44 44.228 E26 38.709 62 m	<i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i>
Munteni-Buzău – Sărățuica Lake	N44 38.476 E26 57.062 39 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Natrix natrix</i>
Munteni-Buzău – wetland Sărățuica Mică	N44 37.763 E26 57.017 31 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelobates fuscus</i> , <i>P. syriacus</i> , <i>Hyla orientalis</i> , <i>Pelophylax ridibundus</i>
Fundata	N44 34.878 E27 15.620 21 m	<i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Lacerta agilis</i>
Valea Ciorii – Strachina Lake	N44 42.860 E27 32.085 bellow 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelobates fuscus</i> , <i>Pelophylax ridibundus</i>
Platonești	N44 35.897 E27 41.541 28 m	<i>Bufo viridis</i> , <i>Lacerta viridis</i> , <i>L. agilis</i>
Hagieni	N44 39.753 E27 45.069 bellow 10 m	<i>Pelophylax ridibundus</i>
Hagieni-Vlădeni	N44 38.687 E27 49.238 bellow 10 m	<i>Bufo viridis</i> , <i>Natrix natrix</i> f. <i>bilineata</i>
Vlădeni	N44 38.040 E27 49.607 bellow 10 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i>
Vlădeni	N 44 36.672 E 27 52.174 bellow 10 m	<i>Pelophylax ridibundus</i> , <i>Lacerta agilis</i> , <i>Dolichophis caspius</i>
Vlădeni	N 44 36.156 E 27 51.762 bellow 10 m	<i>Lacerta agilis</i>
Țândărei-Săveni	N44 37.272 E27 39.242 bellow 10 m	<i>Triturus dobrogicus</i> , <i>Bombina bombina</i> , <i>Bufo viridis</i> , <i>Pelobates fuscus</i> , <i>Pelophylax ridibundus</i> , <i>P. kl. esculentus</i>
Sudiți	N44 35.086 E27 36.244 bellow 10 m	<i>Lissotriton vulgaris</i> , <i>Bombina bombina</i> , <i>Pelobates fuscus</i> , <i>Bufo viridis</i> , <i>Natrix natrix</i>
Mărculești	N44 33.764 E27 32.406 10 m	<i>Bombina bombina</i> , <i>Bufo viridis</i>
Ghimbășani	N44 33.733 E27 29.028 15 m	<i>Dolichophis caspius</i>
Alexeni	N 44 40.564 E 26 43.326 ca. 37 m	<i>Natrix natrix</i>
Bărbătescu	N 44 36.180 E 26 48.163 69 m	<i>Pelophylax ridibundus</i> , <i>Lacerta viridis</i> , <i>Lacerta agilis</i>
Făcăeni	N 44 34.550 E 27 53.740 bellow 10 m	<i>Bufo viridis</i>

DISCUSSION

We have found 12 amphibian species (*Triturus cristatus*, *Triturus dobrogicus*, *Lissotriton vulgaris*, *Bombina bombina*, *Bombina variegata*, *Pelobates syriacus*, *Pelobates fuscus*, *Bufotes viridis*, *Hyla orientalis*, *Rana dalmatina*, *Pelophylax ridibundus*, *Pelophylax lessonae*), two amphibian hybrids (*Triturus cristatus* x *T. dobrogicus* and *Pelophylax kl. esculentus*) and five reptile species (*Emys orbicularis*, *Lacerta agilis*, *Lacerta viridis*, *Natrix natrix*, *Dolichophis caspius*) distributed across the Ialomița County; most of the records tabulated above are new. The only species firstly recorded for this county are *Triturus cristatus* and *Rana dalmatina*. A correspondence between the recent scientific names used for these species, according to currently prevailing taxonomic opinion, and the “older” scientific names used in Romanian environment legislation, is given in table 2 below, to avoid possible confusion regarding protective status.

The most common amphibians are *Pelophylax ridibundus* (66 locations) and *Bombina bombina* (58 locations, which is rejoicing as the species is protected under the European Habitats Directive Annex II); *Bufotes viridis* is also common with 46 records. The most common reptiles are *Lacerta viridis* (26 locations) and *Lacerta agilis* (18 locations). *Emys orbicularis*, also a protected species under the European Habitats Directive Annex II, was found in 10 locations, which is remarkable.

We did not record *Bufo bufo*, *Podarcis tauricus* (these were, however, found by us in the floodplain of Balta Ialomiței – Iftime & Iftime, 2007) or *Natrix tessellata*. The

Table 2

Correspondence between current and older names in use for observed taxa.

Currently used scientific name (Speybroeck et al., 2016)	Scientific name appearing in Romanian environment legislation (L49/2011)	Observations
<i>Triturus cristatus</i>	<i>Triturus cristatus</i> (<i>Triturus cristatus cristatus</i>)	
<i>Triturus dobrogicus</i>	<i>Triturus dobrogicus</i> (<i>Triturus cristatus dobrogicus</i>)	
<i>Bombina bombina</i>	<i>Bombina bombina</i>	
<i>Bombina variegata</i>	<i>Bombina variegata</i>	
<i>Pelobates fuscus</i>	<i>Pelobates fuscus</i>	
<i>Pelobates syriacus</i>	<i>Pelobates syriacus</i>	
<i>Bufotes viridis</i>	<i>Bufo viridis</i>	
<i>Hyla orientalis</i>	<i>Hyla arborea</i>	
<i>Rana dalmatina</i>	<i>Rana dalmatina</i>	
<i>Pelophylax ridibundus</i>	<i>Rana ridibunda</i>	
<i>Pelophylax lessonae</i>	<i>Rana lessonae</i>	
<i>Pelophylax kl. esculentus</i>	<i>Rana esculenta</i>	A “klepton” hybridogenetic taxon.
<i>Emys orbicularis</i>	<i>Emys orbicularis</i>	
<i>Lacerta agilis</i>	<i>Lacerta agilis</i>	
<i>Lacerta viridis</i>	<i>Lacerta viridis</i>	
<i>Natrix natrix</i>	-	
<i>Dolichophis caspius</i>	<i>Coluber caspius</i>

Fig. 1 – A: *Triturus dobrogicus*, adult male, Bordușani, 2016; B: morphologically *Triturus cristatus*-like adult male from hybrid population, Armășești (photos by A. Iftime)

Fig. 2 (A & B) – *Bombina variegata*, adult female, near Rădulești (Brazii), 2016 (photos by A. Iftime);

Fig. 3 – *Pelobates syriacus*, metamorph, Munteni-Buzău, 2016 (photo by A. Iftime).

Fig. 4 – *Rana dalmatina*: A, egg mass, Orezu, 2016; B, larva, Coșereni, 2016 (photos by A. Iftime);

lack of records for *N. tessellata* is in agreement to what we found in the neighbouring Teleorman county (Iftime & Iftime, 2016). However, *Lacerta agilis* appears to be as frequent in Ialomița as we found it to be scarce in other southern regions of Romania: Giurgiu (Iftime & Iftime, 2008) and Teleorman (Iftime & Iftime, 2016).

In the case of Crested Newts (the *Triturus cristatus* species group) we have found 13 new localities for morphologically pure *T. dobrogicus*, significantly extending the range of this species in the Romanian Plain (compare to Covaciu-Marcov et al., 2009; Cogălniceanu et al., 2013a; Wielstra et al., 2016). Some specimens have an atypical morphology, yet within the variation of *T. dobrogicus* (Wielstra et al., 2016) and not suggesting hybridization. In one locality the newts were found to be morphologically intermediate between *T. dobrogicus* and *T. cristatus* and might be presumed to be of hybrid origin; close to this we also found a population of (apparently) morphologically pure *T. cristatus*.

For *Bombina variegata* – a typically hill- and mountain-dwelling species – we found one new record, which is technically outside Ialomița County, although in an area which on most maps is shown within it; anyway it is extremely close to the county border, and should be mentioned for the zoogeographical interest, as it

Fig. 5 – A: *Pelophylax kl. esculentus*, adult male, Rădulești (Brazii), 2016 (photo by O. Iftime); note the white vocal sacs, yellow coxal spots, relatively large metatarsal tubercle; B: *Pelophylax lessonae*, adult male, Rădulești (Brazii), 2016 (photo by A. Iftime); note the large metatarsal tubercle.

Fig. 6 – *Emys orbicularis*, adult, with *Bufo viridis* larvae, Gheorghe Doja, 2016 (photo by O. Iftime).

is one of the very few records of this species in the Romanian Plain (compare to Cogălniceanu et al., 2013a).

Also of interest are the five new locations for *Pelobates syriacus*, considerably extending the distribution towards the south and west in the Ialomița valley area (compare to Cogălniceanu et al., 2013a; Székely et al., 2013; Török, 2014). Some places (e. g. Munteni-Buzău) offered the opportunity to observe, during several visits, the development of the tadpoles of this species up to metamorphosis. Many authors (e.g. Fuhn, 1960; Sidorovska et al., 2002; Székely et al., 2013) claim that *P. syriacus* tadpoles cannot be accurately distinguished from *P. fuscus* tadpoles; however, see Speybroeck et al., 2016 – whose data our observations tend to confirm.

Rana dalmatina was firstly recorded for this county. While not unexpected in the forests in the west of the county, its occurrence along the Ialomița River is interesting.

In the *Pelophylax* genus (the “West Palearctic Water Frogs” or “Green Frogs”), we found all three forms that are present in Romania – the two species *P. ridibundus* and *P. lessonae*, and their hybridogenetic kleptotaxon *P. kl. esculentus*. We note that *P. ridibundus* is the most widely distributed and abundant; of our 65 records of *Pelophylax* frogs, 42 were of *P. ridibundus* alone, 15 of *P. ridibundus* and *P. kl. esculentus*, three of all three species together, and two where we only noticed *P. ridibundus* and *P.*

Fig. 7 – *Lacerta agilis*, adult male, Bărbulești, 2016 (photo by O. Iftime).

Fig. 8 – *Dolichophis caspius*, killed adult, Piersica, 2016 (photo by O. Iftime).

lessonae (of course, we do not exclude the possibility of the hybrid being also present there). More research would be needed to assess the presence and chart the distribution of R-E and R-L-E (and possibly other) hybridogenetic systems in this area. At least in one place (Rădulești/Brazii, observed in late April 2016) coexisting *P. ridibundus*, *P. lessonae* and *P. kl. esculentus* appeared to be involved together in reproductive activities, sound displays and associated fights, possibly indicating a R-L-E system.

Among reptiles, the Caspian Whip Snake (*Dolichophis caspius*) was found in a number of nine points, significantly extending its known range in the Romanian plain (compare to Fuhn & Vancea, 1961; Iftime & Iftime, 2007; Cogălniceanu et al., 2013b; Sahlean et al., 2014) and thus confirming the presence of this species in the central Ialomița plain, where it was indicated by the old record of Fuhn & Vancea (1961) from Ghimpați (this record was, however, not included in recent synthetic works, e.g. Cogălniceanu et al., 2013b).

We also note that, despite intense anthropogenic modification (mainly expressed in large agricultural monocultures and the associated drainage and irrigation works) the herpetofauna has managed to survive in considerable numbers, both of species and individuals. Many amphibians use the ditches and canals made for drainage (in the wetlands) and for irrigation (in agricultural areas). Although irrigation ditches and canals are not in agricultural use anymore, they still drain and collect enough water to ensure successful reproduction for numerous amphibians, including protected species (e.g. *Triturus dobrogicus*, *T. cristatus*, *Bombina bombina*).

Another interesting observation pertaining to amphibian ecology is that apparently no amphibians live in some parts of the highly mineralized Amara Lake.

Another important anthropogenic impact is the deposition of garbage, which is largely haphazard and too often takes the form of dumping into waterbodies whatever must be thrown out. As a result, some waterbodies, including some used by a large number of amphibians (e.g. at Ciochina), are studded or almost choked up with household garbage. On the brighter side, contamination of natural habitats (including waterbodies) with fertilizer and pesticide runoff from agriculture appears to be low (inasmuch as we could observe) – probably reflecting a more careful use of these substances that at sometimes in the past, albeit this is likely driven more by their cost than by concern for the environment.

On the whole, despite such impacts, the Ialomița County offers good conditions for the long-term persistence of amphibian and reptile species, including such species

which are protected under the European Habitats Directive Annex II as *Triturus dobrogicus*, *T. cristatus*, *Bombina bombina* and *Emys orbicularis*, providing good opportunities for conservation.

REFERENCES

- COGĂLNICEANU, D. (1997) Practicum de ecologie a amfibienilor: Metode și tehnici în studiul ecologiei amfibienilor. Ed. Universității din București, 122 pp. (in Romanian)
- COGĂLNICEANU, D., P. SZÉKELY, C. SAMOILĂ, R. IOSIF, M. TUDOR, R. PLĂIAȘU, F. STĂNESCU, L. ROZYLOWICZ (2013a) Diversity and distribution of amphibians in Romania. *ZooKeys*, 296: 35–57.
- COGĂLNICEANU, D., L. ROZYLOWICZ, P. SZÉKELY, C. SAMOILĂ, F. STĂNESCU, M. TUDOR, D. SZÉKELY, R. IOSIF (2013b) Diversity and distribution of reptiles in Romania. *ZooKeys*, 341: 49–76.
- COVACIU-MARCOV, S.-D., A.-Ș. CICORT-LUCACIU, I. SAS, A. FILIMON (2009) Notes on the herpetofauna of south-eastern plain areas from Romania. *Universitatea din Craiova, seria Biologie, Horticultură, Tehnologia prelucrării produselor agricole, Ingineria mediului*, 14 (XLX): 451–456.
- FUHN, I. (1960) Amphibia. *In: Fauna R.P.R.*, 14, 1, Edit. Academiei R.S.R., București. (in Romanian)
- FUHN, I., ȘT. VANCEA (1961) Reptilia. *In: Fauna R.P.R.*, 14, 2, Edit. Academiei Române. București. (in Romanian)
- IFTIME, A., O. IFTIME (2007) Some records of the herpetofauna of the Danube floodplains in the Balta Ialomiței area (Romania). *Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa"*, 50: 273–281
- IFTIME, A., O. IFTIME (2008) Observations on the herpetofauna of the Giurgiu county. *Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa"*, 51: 209–218.
- IFTIME, A., O. IFTIME (2016) Contributions to the knowledge on the amphibians and reptiles of Teleorman county (southern Romania). *Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa"*, 58(1–2): 63–71.
- MĂCIU, M., CHIOREANU, A., VĂCARU, V. (ed.), 1982. *Enciclopedia geografică a României*. Ed. Științifică și Enciclopedică, București, 847 pp. (In Romanian)
- SAHLEAN, T.C., I. GHERGHEL, M. PAPEȘ, A. STRUGARIU, Ș.R. ZAMFIRESCU (2014) Refining climate change projections for organisms with low dispersal abilities: a case study of the Caspian Whip Snake. *PLoS ONE* 9(3): e91994. doi:10.1371/journal.pone.0091994.
- SIDOROVSKA, V., K. LJUBISAVLJEVIC, G. DŽUKIĆ, M.L. KALEŽIĆ (2002) Tadpole morphology of two spadefoot toads (*Pelobates fuscus* and *P. syriacus*) (Amphibia, Anura, Pelobatidae). *Spixiana*, 25: 183–191.
- SOS, T. (2011) În obiectiv: Țestoasa de apă europeană, *Emys orbicularis*. Asociația Ecouri Verzi, Cluj-Napoca (in Romanian).
- SPEYBROECK, J., W. BEUKEMA, B. BOK, J. VAN DER VOORT, I. VELIKOV (2016) *Field Guide to the Amphibians and Reptiles of Britain and Europe* (British Wildlife Field Guides). Bloomsbury Natural History, London/New York.
- SZÉKELY, P., R. IOSIF, D. SZÉKELY, F. STĂNESCU, D. COGĂLNICEANU (2013) Range extension for the Eastern spadefoot toad *Pelobates syriacus* (Boettger, 1889) (Anura: Pelobatidae). *Herpetology Notes* 6: 481–484.
- TÖRÖK, Z.S., (2001) Herpetological observations in the lower Danube area (Calafat-Călărași sector). *Studii și cercetări, Biologie, Universitatea din Bacău*, 6, 115–119.
- TÖRÖK, Z.S. (2014) New data on the distribution of *Pelobates syriacus* in Romania and first record of the species in Vrancea county. *BSB Net-Eco International Conference, Environmental aspects and available scientific tools for Black Sea Basin protection "Deltas and wetlands"* Tulcea, 15–17 September 2014.
- WIELSTRA, B., J. VÖRÖS, J.W. ARNTZEN (2016) Is the Danube crested newt *Triturus dobrogicus* polytypic? A review and new nuclear DNA data. *Amphibia-Reptilia*, 37 (2): 167–177.
- *** L 49/2011. Lege (nr. 49/2011) pentru aprobarea Ordonanței de urgență a Guvernului nr. 57/2007 privind regimul ariilor naturale protejate, conservarea habitatelor naturale, a florei și faunei sălbatice. *Monitorul Oficial al României*, 262: 2–12 (in Romanian).
- *** Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. 66 pp.