

## Reptiles and amphibians of Albania with new records and notes on occurrence and distribution

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**Abstract.** In June 2007, 12 species of Amphibia and 19 species of Reptilia were found during investigations at 18 localities situated from sea level up to 1507 m a. s. l. in Albania. The highest number of amphibians (5) was recorded at Shelegurë, 1032 m a. s. l. and of reptiles (9) at Diviakë, 1–5 m a. s. l. The highest total number of species (5 amphibians and 6 reptiles) was recorded at Shelegurë. *Testudo hermanni* was the most abundant species of reptile recorded. Of the amphibians, *Bombina variegata* and *Pelophylax ridibundus* were also abundant and *Podarcis muralis* occurred at the highest locality (Llogarë, Cikës Mts., 1507 m a. s. l.). Herein, are presented new faunistic records for 11 species of Reptilia. From the zoogeographical point of view, 50.0% of the amphibians recorded are Mediterranean, 33.3% European and 16.7% Palearctic species. Of the reptiles, 52.6% are Mediterranean, 15.8% European and 31.6% Palearctic species. Mediterranean faunal elements are predominant in the batrachofauna and herpetofauna of Albania. Four of the amphibians recorded (*Triturus macedonicus*, *Pelophylax epiroticus*, *P. shqipericus*, *Rana graeca*) and three reptiles (*Algyroides nigropunctatus*, *Podarcis erhardii*, *Anguis graeca*) are endemic to the Balkan Peninsula. An annotated list of all the species recorded in Albania in 2007 is presented.

**Key words.** Amphibia, Reptilia, Albania, Balkan Peninsula, herpetofauna, batrachofauna, zoogeography, faunistics.

### INTRODUCTION

Albania is a country situated on the Balkan Peninsula in south-eastern Europe with a total area of 28,748 square kilometers. Seventy percent of the country is mountainous with lowlands in the west abutting on the Adriatic Sea. Although a small country, Albania is rich in terms of its biological diversity. The paleogeomorphological history of the area, climate and terrain create favourable conditions for many rare species. For example, there are 27 endemic and 160 subendemic vascular plants in Albania. The total biota of Albania is rich, consisting of around 4650 species of insects and 780 species of vertebrates (Bego & Koni 1999, Deliany et al. 1999). Albania, south Croatia and Montenegro, is an area in Europe noted for its rich batrachofauna and herpetofauna including high concentrations of unique haplotypes and endemic species (cf. Džukić & Kalezić 2004, Babik et al. 2005, Ljubisavljević et al. 2007, Sotiropoulos et al. 2007, Ursenbacher et al. 2008, Gvoždik et al. 2010).

General knowledge of the herpetofauna and batrachofauna of Albania is based on many studies (see e.g. Werner 1920, Kopstein & Wettstein 1921, De Fejérváry 1923, Bolkay 1929, Calabresi 1932, Karaman 1939, Frommhold 1959, Bruno 1989, Fehér et al. 2004), most of which report the results of short excursions to various parts of Albania. There are also more detailed faunistic reports written by Albanian specialists (e.g. Zeko & Puzanov 1960, Dani 1970, Haxhiu 1979, 1980, 1985, 1994, 1998) and several incomplete studies on Albanian amphibians and reptiles (e.g. Haxhiu 1991a, b, Schneider & Haxhiu 1994, Haxhiu 1995a, b, Farkas & Buzás 1997, Korsós et al. 2008, Oruçi 2008, 2010).

At present, the batrachofauna of Albania includes 16 species and the herpetofauna 37 species (Haxhiu 1994, 1998, Gasc et al. 1997, Deliany et al. 1999, Petrov 2006, based on the current taxonomy sensu Speybroeck et al. 2010). In this article I present the results of studies at 18 localities in June 2007.

## MATERIAL AND METHODS

At each locality, the amphibians and reptiles were observed, recorded, identified and photographed. Reptiles and amphibians were studied both during the day and night. Identification of specimens is based on Arnold & Ovenden (2002) and Valakos et al. (2008). Nomenclature follows the recent publication of Speybroeck et al. (2010). For the zoogeographical analysis I use terms included in the chorotype classification of Vigna Taglianti et al. (1999), but reduced to three zoogeographical units: Mediterranean, European and Palaearctic. Data on distribution are compared with that in articles by Haxhiu (1994) on amphibians and Haxhiu (1998) on reptiles. All data on the living or dead specimens recorded during this study are available in an on-line version of Balkan Peninsula mapping (Balej & Jablonski 2006–2011).

### Localities visited

Localities are arranged alphabetically. The following data are provided for each locality name, altitude, ecological characteristics, the date and in parentheses at the end the number of the locality, which indicates its position on the map (Fig. 1). In some cases a photograph of the habitat is also provided.

- Ardenica**, 43 m a. s. l.: pine forest, sand along the side of the road and on walls of the local monastery; 13–14 June 2007 (5).
- Butrint**, 5 m a. s. l.: lakes, canals and archeological ruins in vicinity of archaeological monument, 16 June 2007 (10a) (Fig. 6); 1 m a. s. l.: Butrint lake and its vicinity (canals and wetlands), 16 June 2007 (10b).
- Dhërmi**, 166 m a. s. l.: stream and rocks in the vicinity of the village, 15 June 2007 (8).
- Diviakë**, 1–5 m a. s. l.: vicinity of the lagoon Karavastasë (sandy sea coast and adjacent pinewood), 13 June 2007 (4) (Fig. 4).
- Drenovë**, 1143 m a. s. l.: surroundings along local streams and ruins of a strip mine 6 km from Drenovë village, June 18 2007 (17) (Fig. 8).
- Ersekë**, 993 m a. s. l.: bushes along the road and local stream, 18 June 2007 (16).
- Fushë-Krujë**, 114 m a. s. l.: pine forest and woodland along the road, 13 June 2007 (3).
- Gjirokastër**, 318 m a. s. l.: citadel and its walls in the city center, 16–17 June 2007 (12).
- Himarrë (Llaman)**, 5 m a. s. l.: along the road in the ruins of this ancient village, 15–16 June 2007 (9).
- Kelcyrë**, 180 m a. s. l.: pine trees and local rocks in the Kelcyrë gorge, 17 June 2007 (13).
- Krujë**, 529 m a. s. l.: the city center, 13 June 2007 (2).
- Llogarë (Cikës Mts.)**, 7 sites situated from 854–1507 m a. s. l.: 854 m a. s. l.: camping site, 14 June 2007 (7a); 867 m a. s. l.: rocks, trees, 14 June 2007 (7b) (Fig. 5); 972 m a. s. l.: temporary water pools along the road, 14 June 2007 (7c); 1015 m a. s. l.: surroundings along a local road, 14 June 2007 (7d); 1230 m a. s. l.: rocks, bushes, 14 June 2007 (7e); 1507 m a. s. l.: rock meadow on mount Athanasit (Cikës Mountains), 14 June 2007 (7f).
- Permët**, 219 m a. s. l.: bushes along the road, 17 June 2007 (14).
- Piskupat**, 699 m a. s. l.: littoral zone of Lake Ohrid and its surroundings 2 km from Piskupat village, 18–19 June 2007 (18).
- Radhimë**, 1 m a. s. l.: olive trees and water hole in vicinity of village, 14 June 2007 (6).
- Shelegurë (Kolonjë)**, 1032 m a. s. l.: vicinity of Shelegurë lake with rocks, water reservoirs and canals, 17–18 June 2007 (15) (Fig. 7).
- Syri i Kaltër (Musina village)**, 179 m a. s. l.: foot path to Syri i Kaltër and local water reservoir, 16 June 2007 (11).
- Zogaj**, 1–20 m a. s. l.: littoral zone of the Sea of Skadar and vicinity of village (macchia), 12–13 June 2007 (1) (Fig. 3).

## RESULTS AND DISCUSSION

During the one week of this study carried out in June 2007 at 18 localities in Albania, situated from sea level up to 1507 m a. s. l., 12 species of Amphibia and 19 species of Reptilia were found (Table 1). If the present batrachofauna of Albania includes 16 species, then the twelve species recorded in 2007 make up 75.0% of the fauna. If the present herpetofauna of Albania includes 37 species, the nineteen species recorded in 2007 makes up 51.4%. The numbers of species of both amphibians and reptiles recorded at each locality is given in Fig. 2.

Amphibians were recorded at 10 of the 18 localities studied. The highest number of species (5) was recorded at Shelegurë, 1032 m a. s. l., followed by the four recorded at Ardenica, 43 m a. s. l. *Bombina variegata* and *Pelophylax ridibundus* were the most abundant amphibians and both occurred at three localities.

Reptiles were recorded at all the localities studied, at some of which there were high population densities. The highest number of species (9) was recorded at Diviakë in the area Karavastasë lagoon, followed by eight species at Llogarë. The Hermann's tortoise (*Testudo hermanni*) was the most abundant species of reptile recorded during this investigation. This species was relatively abundant at nine localities at altitudes from sea level to Lake Shelegurë, which is at 1032 m a. s. l. Three other species: *Algyroides nigropunctatus* (six localities), *Podarcis muralis* (five localities) and *Anguis graeca* (five localities) were also generally abundant.

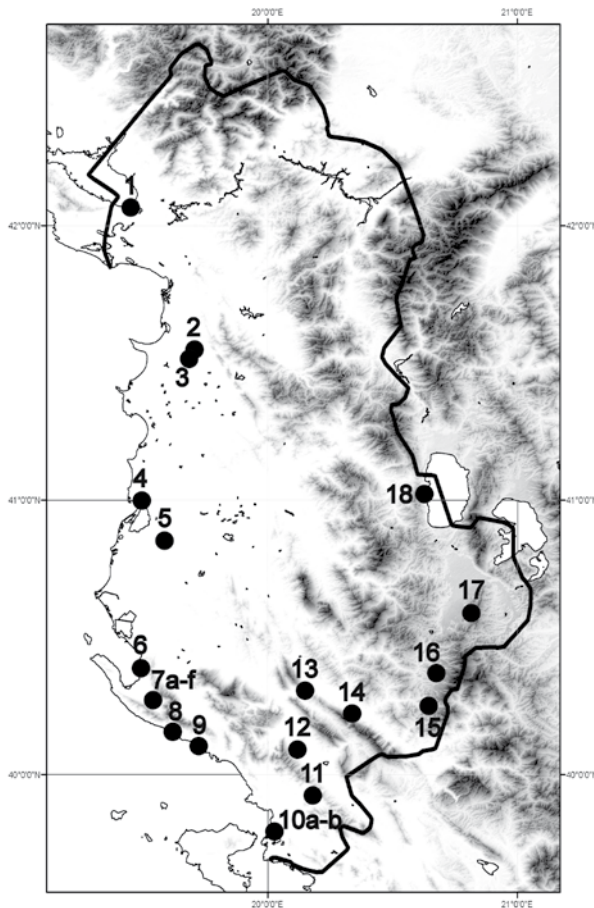


Fig. 1. Map of Albania showing the localities that were investigated in June 2007: 1 – Zogaj, 2 – Krujë, 3 – Fushë-Krujë, 4 – Diviakë, 5 – Ardenica, 6 – Radhimë, 7 – Llogarë, 8 – Dhërmi, 9 – Himarë, 10 – Butrint, 11 – Syri i Kaltër, 12 – Gjirokastrë, 13 – Kelcyrë, 14 – Permët, 15 – Shelegurë, 16 – Ersekë, 17 – Drenovë, 18 – Piskopat.

Several species of both taxonomic groups are not generally distributed throughout Albania. Many species of both groups were found mainly at localities situated along the coast and a few only in the mountains. Most species (22) were found at altitudes between 0–200 m a. s. l. and 19 species were recorded at altitudes over 200 m a. s. l. Five species were found at the highest locality, Drenovë, 1143 m a. s. l. (two species of amphibians and three of reptiles) and even eleven species at lake Shelegurë, 1032 m a. s. l. (five species of amphibians and six of reptiles, the highest number of species recorded at any locality). The Wall lizard (*Podarcis muralis*) was recorded at the highest locality, Llogarë (Cikës Mts.) at 1507 m a. s. l. Eleven of the species of reptile are new faunistic records for Albania: *Mauremys rivulata* (Geoemydidae), *Emys orbicularis* (Emydidae), *Hemidactylus turcicus* (Gekkonidae), *Algyroides nigropunctatus*, *Lacerta trilineata*, *Lacerta viridis* complex, *Podarcis erhardii* (Lacertidae), *Anguis graeca*, *Pseudopus apodus* (Anguidae), *Typhlops vermicularis* (Typhlopidae), and *Platyceps najadum* (Colubridae).

These results complement and enrich our knowledge of the occurrence and distribution of reptiles in Albania. Although no new locality was recorded for amphibians, the current occurrence of several species at localities reported by earlier researchers was confirmed.

Amphibians and reptiles recorded in Albania may be categorized on the basis of their distribution in three zoogeographical units: Mediterranean, European and Palaeartic. Of the 12 amphibians recorded in Albania, six may be evaluated as Mediterranean (50.0%) four as European (33.3%) and the other two as Palaeartic (16.7%). *Bufo bufo* and *Bufo viridis* complex are species that are widely distributed across Europe up to Asia. *Triturus macedonicus*, *Pelophylax epeiroticus*, *P. shqipericus*, and *Rana graeca* are endemic to the Balkan Peninsula. From the zoogeographical point of view, there are similar numbers of Mediterranean and European species of Amphibia in Albania.

Of the 19 species of reptiles recorded in Albania, ten (52.6%) are mainly Mediterranean, three (15.8%) European and six (31.6%) may be considered to be Palaeartic as they occur widely in

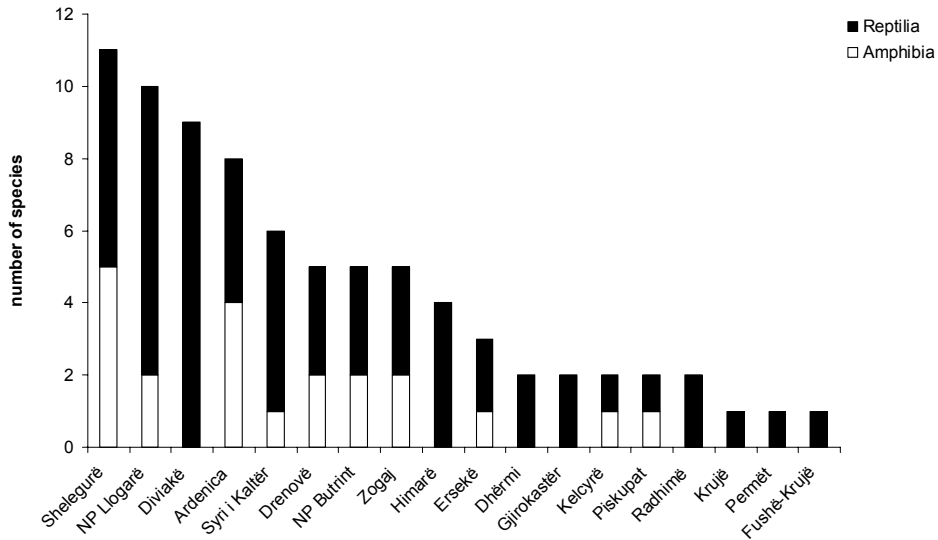


Fig. 2. The number of species recorded at different localities in Albania in 2007.

Table 1. List of species of Amphibia and Reptilia recorded at localities in Albania in June 2007. Locality numbers refer to the numbers depicted in Fig. 1: 1 – Zogaj, 2 – Krujë, 3 – Fushë-Krujë, 4 – Divjakë, 5 – Ardenica, 6 – Radhimë, 7 – Llogarë, 8 – Dhërmi, 9 – Himarë, 10 – Butrint, 11 – Syri i Kaltër, 12 – Gjirokastrë, 13 – Këlcyrë, 14 – Përmët, 15 – Shelegurë, 16 – Ersekë, 17 – Drenovë, 18 – Piskupat. Abbreviations: NL – number of localities where the species was found, TNS – total number of specimens recorded at all localities

site	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	NL	TNS	
<b>Amphibia</b>																					
<i>Lissotriton vulgaris</i>															+				1	8	
<i>Salamandra salamandra</i>							+												1	>10	
<i>Triturus macedonicus</i>																			1	8	
<i>Bombina variegata</i>							+										+		3	>10	
<i>Bufo bufo</i>					+														1	10	
<i>Bufo viridis</i> complex					+					+									2	5	
<i>Hyla arborea</i>										+									2	>10	
<i>Pelophylax epeiroticus</i>										+									1	>10	
<i>Pelophylax ridibundus</i>		+																+	3	>10	
<i>Pelophylax shqipericus</i>		+			+														3	>10	
<i>Rana dalmatina</i>					+							+							2	6	
<i>Rana graeca</i>					+											+	+		2	3	
<b>Reptilia</b>																					
<i>Testudo hermanni</i>		+			+	+			+						+				9	>10	
<i>Mauremys rivulata</i>			+							+									2	6	
<i>Emys orbicularis</i>							+			+									2	>10	
<i>Hemidactylus turcicus</i>					+														2	>10	
<i>Algyroides nigropunctatus</i>								+		+									6	>10	
<i>Lacerta viridis</i> complex							+			+									4	>10	
<i>Lacerta trilineata</i>							+			+									3	10	
<i>Podarcis erhardii</i>																		+	1	>10	
<i>Podarcis muralis</i>		+					+												5	>10	
<i>Podarcis tauricus</i>					+														2	4	
<i>Anguis graeca</i>					+					+									5	8	
<i>Pseudopus apodus</i>					+														2	3	
<i>Typhlops vermicularis</i>																			1	1	
<i>Malpolon insignitus</i>					+					+									3	4	
<i>Natrix natrix</i>					+							+							2	3	
<i>Natrix tessellata</i>																			2	>10	
<i>Dolichophis caspius</i>																		+	1	1	
<i>Platyceps najadum</i>										+									3	3	
<i>Vipera ammodytes</i>							+											+	3	3	

Europe and Asia. For example, *Natrix natrix* is widely distributed in Europe and even reaches China and the distribution of *Natrix tessellata* ranges from Europe to northeastern Africa and China. From the zoogeographical point of view the reptilian fauna of Albania is predominantly Mediterranean. *Algyroides nigropunctatus*, *Podarcis erhardii* and *Anguis graeca* are endemic to the Balkan Peninsula.

### **Annotated list of recorded species**

Species are arranged by taxonomic group and families. The following data are given for each species: species name, author and date of description, locality and altitude of present record, occurrence in Albania, distribution in the Palaearctic region and pertinent notes on the taxonomy, bionomy, ecology and occurrence. List of species of amphibians and reptiles recorded at localities in Albania in June 2007 is presented in Table 1.

#### AMPHIBIA Salamandridae

##### ***Lissotriton vulgaris* (Linnaeus, 1758)**

RECORD. Shelegurë, 1032 m a. s. l.: 8 adult specimens.

OCCURRENCE. Widespread (Haxhiu 1994). *L. (v.) graecus* (Wolterstorff, 1906) occurs in the region (cf. Babik et al. 2005).

DISTRIBUTION. Inhabits most of Europe except southwest, northern and northeastern parts.

COMMENTS. Specimens were collected in small shallow (depth about 30 cm) ponds with water plants.

##### ***Salamandra salamandra* Linnaeus, 1758**

RECORD. Llogarë, 972 m a. s. l.: 10 larval specimens.

OCCURRENCE. Common (Haxhiu 1994).

DISTRIBUTION. Southern and central Europe.

##### ***Triturus macedonicus* (Karaman, 1922)**

RECORD. Shelegurë, 1032 m a. s. l.: 8 adult specimens (Fig. 9).

OCCURRENCE. Common (Haxhiu 1994).

DISTRIBUTION. Endemic to central and western parts of the Balkans.

COMMENTS. There is a high level of genetic variability in *T. carnifex* and the subspecies *T. c. macedonicus* was elevated to a separate species *T. macedonicus* by Arntzen et al. (2007).

#### Bombinatoridae

##### ***Bombina variegata* (Linnaeus, 1758)**

RECORDS. Llogarë, 972 m a. s. l.: small water hole, 6 adult specimens; Shelegurë, 1032 m a. s. l.: 10 adult specimens; Drenovë, 1143 m a. s. l.: brook, 5 adult specimens.

OCCURRENCE. Common in Albania from coast to mountains (Haxhiu 1994).

DISTRIBUTION. Central and south European species.

COMMENTS. All findings are from altitudes over 900 m a. s. l. Specimens were observed in canals (Llogarë, Shelegurë) and a mountain stream (Drenovë).

#### Bufoidea

##### ***Bufo bufo* (Linnaeus, 1758)**

RECORD. Ardenica monastery, 43 m a. s. l.: 10 adult specimens found on the road.

OCCURRENCE. Very common species in Albania (Haxhiu 1994).

DISTRIBUTION. Species complex (Recuero et al. 2012) widely distributed from northwest Africa in the west to Europe and eastern Siberia in the east.

COMMENTS. Individuals were found at only one locality close to a road together with *Bufo viridis* complex and *Rana dalmatina*.

### *Bufo viridis* complex

RECORDS. Ardenica cloister, 43 m a. s. l.: 3 adult specimens (Fig. 10); Butrint Lake, 1 m a. s. l.: 2 juvenile individuals.  
OCCURRENCE. Common Albanian species occurring mainly in lowland areas in the Western Depression and also high in the mountains (Haxhiu 1994). Sensu Stöck et al. 2009 in Albania occurs *Bufo variabilis* (Pallas, 1769).  
DISTRIBUTION. It is a species complex (Stöck et al. 2006) distributed from North Africa, across the Mediterranean, central and south Europe to west Asia and Mongolia.  
COMMENTS. The surroundings of the localities were sandy and dry.



Figs. 3–8. The localities and habitats in Albania that were investigated. 3 – Littoral of the Lake Skadar (locality No. 1). 4 – Diviakë in Karavastasë (No. 4). 5 – Llogarë (No. 7b) where *Anguis graeca*, *Algyroides nigropunctatus*, *Podarcis muralis* and *Vipera ammodytes* were found. 6 – Habitat at Butrint (No. 10a) where *Emys orbicularis* and *Mauremys rivulata* were found. 7 – A general view of the biotope Shelegurë, 1032 m a. s. l. (No. 15). 8 – A view of the locality Drenovë, 1143 m a. s. l. (No. 17).

Hylidae

*Hyla arborea* (Linnaeus, 1758)

RECORDS. Syri i Kaltër, 179 m a. s. l.: tens of tadpoles in artificial pond; Shelegurë, 1032 m a. s. l.: 2 males.

OCCURRENCE. Abundant species in Albania from seashore to altitudes of about 1500 m a. s. l. (Haxhiu 1994).

DISTRIBUTION. It occurs in almost whole Europe except southern France and the Apennine and Iberian Peninsulas.



Figs. 9–14. The amphibians and reptiles in the localities where they were recorded in Albania. 9 – *Triturus macedonicus* (Karaman, 1922), male, Shelegurë. 10 – *Bufo viridis* complex (Laurenti, 1768) male, Ardenica. 11 – *Pelophylax* cf. *epeiroticus* (Schneider, Sofianidou & Kyriakopoulou-Sklavounou, 1984), juvenile, Butrint. 12 – *Rana graeca* Boulenger, 1891, Drenovë. 13 – *Pelophylax* cf. *shqipericus* (Hotz, Uzzell, Günther, Tunner & Heppich, 1987), male, Lake Skadar. 14 – *Emys orbicularis* (Linnaeus, 1758), female, Butrint.



## Ranidae

### *Pelophylax epeiroticus* (Schneider, Sofianidou et Kyriakopoulou-Sklavounou, 1984)

RECORD. Butrint Lake, 1 m a. s. l.: tens juvenile specimens (Fig. 11).

OCCURRENCE. This species occurs only in the wetlands in the district Sarandë, where it is at the northern limit of its distribution (Haxhiu 1994, Oruçi 2008).

DISTRIBUTION. Endemic species of Balkans restricted to western Greece and the southern parts of Albania.

COMMENTS. It was very common species at Butrint Lake.

### *Pelophylax ridibundus* (Pallas, 1771)

RECORDS. Zogaj, 0–5 m a. s. l.: littoral zone of Lake Skadar, tens adult specimens; Shelegurë Lake, 1032 m a. s. l.: observed tens of adult specimens; Piskupat, 699 m a. s. l.: tens of calling males.

OCCURRENCE. This species occurs throughout Albania in both hilly and lowland regions (Haxhiu 1994).

DISTRIBUTION. It occurs commonly throughout central Europe up to western Asia.

COMMENTS. The species *P. kurtmuelleri* (lately *Rana balcanica*) is included here. Sensu Speybroeck et al. (2010) it is not a valid taxon. Results of a phylogenetic analysis (topology of the phylogenetic tree and small genetic distances between *P. ridibundus* and *P. kurtmuelleri*) indicate that *P. kurtmuelleri* is not distinct species (Lymerakis et al. 2007).

### *Pelophylax shqipericus* (Hotz, Uzzel, Günther, Tunner et Heppich, 1987)

RECORDS. Zogaj, 0–5 m a. s. l.: littoral zone of Lake Skadar, ten adult specimens (Fig. 13); Ardenica, 43 m a. s. l.: 2 specimens near the road.

OCCURRENCE. It is a western lowland species that probably does not reach 500 m a. s. l. (Haxhiu 1994).

DISTRIBUTION. This Balkan endemic species is restricted to western Albania and southern Montenegro.

### *Rana dalmatina* Fitzinger, 1838

RECORDS. Ardenica, 43 m a. s. l.: 4 adult specimens; Kelcyrë, 180 m a. s. l.: 2 adults and 1 semiadult.

OCCURRENCE. This species occurs commonly in all parts of Albania (Haxhiu 1994).

DISTRIBUTION. It is widespread in Europe, except for most of the Iberian Peninsula and northern Europe.

COMMENTS. Both localities are in open pine woodland.

### *Rana graeca* Boulenger, 1891

RECORDS. Ersekë, 993 m a. s. l.: 1 adult observed; Drenovë, 1143 m a. s. l.: 1 adult and 1 juvenile (Fig. 12).

OCCURRENCE. Mainly in hilly parts of Albania and according to Haxhiu (1994) is recorded there less frequently than *R. dalmatina*.

DISTRIBUTION. This species is endemic in the central and southern Balkans.

COMMENTS. At locality Drenovë it occurs in cold clean water streams along with *B. variegata*.

## REPTILIA

### Testudinidae

### *Testudo hermanni* Gmelin, 1789

RECORDS. Zogaj, 0–5 m a. s. l.: 1 adult female; Fushë-Krujë, 114 m a. s. l.: many adults and juveniles (>10); Diviakë, 0–5 m: 5 adults and 3 juveniles; Ardenica, 43 m a. s. l.: 3 adults and 3 juveniles; Radhimë, 1 m a. s. l.: 2 adults (male and female); Himarë, 5 m a. s. l.: 2 adult females; Syri a Kaltër, 179 m a. s. l.: 3 adults; Permët, 219 m a. s. l.: 1 juvenile; Shelegurë, 1032 m a. s. l.: 3 adults.

OCCURRENCE. It is a common species all over Albania from sea level to 1000 m a. s. l. (Haxhiu 1998).

DISTRIBUTION. South European species.

## Geoemydidae

### *Mauremys rivulata* (Valenciennes, 1833)

RECORDS. Diviakë, 0–5 m a. s. l.: 2 adults; Butrint, 5 m a. s. l.: 3 adults and 1 juvenile at the same locality as *E. orbicularis* (Fig. 6, 15). The locality Diviakë is a new record for Albania.

OCCURRENCE. It is common in western Albania in lowlands and hilly regions (Haxhiu 1995a, 1998).

DISTRIBUTION. It occurs in the southern Balkans, parts of Asiatic Turkey and Israel.

Emydidae

***Emys orbicularis* (Linnaeus, 1758)**

RECORDS. Radhimë, 1 m a. s. l.: 1 adult female; Butrint, 5 m a. s. l.: ca 23 adult, semiadult and juveniles in reservoirs and man made canals at an archeological site (Fig. 6, 14). The locality Radhimë is a new record for Albania.

OCCURRENCE. Common (Haxhiu 1998).

DISTRIBUTION. Northern Africa and most of Europe except in the north and parts of central Europe.

Gekkonidae

***Hemidactylus turcicus* (Linnaeus, 1758)**

RECORDS. Ardenica, 43 m a. s. l.: 12 adults on monastery walls; Himarë, 5 m a. s. l.: 1 semiadult specimen and 3 adults. The locality Ardenica is a new record for Albania.

OCCURRENCE. This species is common in the west of Albania (Haxhiu 1998).

DISTRIBUTION. Circum-Mediterranean species.

COMMENTS. All records are for anthropogenic habitats (old houses, walls etc.).

Lacertidae

***Algyroides nigropunctatus* (Duméril et Bibron, 1839)**

RECORDS. Diviakë, 0–5 m a. s. l.: 10 adults; Llogarë, 867 m a. s. l.: 4 adults; Llogarë, 1015 m a. s. l.: 6 adults; Llogarë, 1230 m a. s. l.: 2 adults; Dhërmi, 166 m a. s. l.: 10 adult and subadult specimens; Syri i Kaltër, 179 m a. s. l.: 1 adult; Gjirokastër, 318 m a. s. l.: 8 adults; Shelegurë, 1032 m a. s. l.: 2 adults. All the localities (except Llogarë and vicinity) are new records for this species in Albania.

OCCURRENCE. This species occurs from sea level to high up in the mountains.

DISTRIBUTION. Endemic especially to western parts of the Balkans.

***Lacerta viridis* complex**

*Lacerta viridis* (Laurenti, 1768) and *Lacerta bilineata* Daudin, 1802

RECORDS. Llogarë, 854 m a. s. l.: 2 adults (Fig. 16); Syri i Kaltër, 179 m a. s. l.: many adults in surroundings of forest road; Shelegurë, 1032 m a. s. l.: 1 female; Drenovë, 1143 m a. s. l.: 2 adult males in surroundings of a half-broken coal-bed (Fig. 17). The locality Syri i Kaltër is a new record for Albania.

OCCURRENCE. Common (Haxhiu 1998).

DISTRIBUTION. This species complex is occurs in western, central and south-eastern Europe and northern Turkey.

COMMENTS. *Sensu* Böhme et al. (2007) there is a phylogenetic lineage with sequences corresponding to those of *L. bilineata* in the western part of the Balkans. This lineage may also be present in Albania as similar specimens occur in western parts of Montenegro and Greece.

***Lacerta trilineata* Bedriaga, 1886**

RECORDS. Llogarë, 1015 m a. s. l.: 1 dead female and 1 live adult male and 5 more specimens on a hill side above the road; Himarë, 5 m a. s. l.: 1 adult female and 1 subadult female (Fig. 18); Kelecyrë, 180 m a. s. l.: 1 dead male. All these localities are new records for this species in Albania.

OCCURRENCE. It is common mainly in lowland regions (Haxhiu 1998).

DISTRIBUTION. Balkans and Asiatic Turkey.

***Podarcis erhardii* (Bedriaga, 1876)**

RECORD. Drenovë, 1143 m a. s. l.: 14 adults (Fig. 19). This locality is a new record for Albania.

OCCURRENCE. Very rare in Albania (Haxhiu 1998).

DISTRIBUTION. Endemic to the central and southern Balkans.

COMMENTS. Haxhiu (1998) reports only one locality, the surroundings of the village Prespe. Bruno (1989) records this species at localities in eastern and northeastern Albania. In most cases it was probably not this species but *Podarcis muralis*.

***Podarcis muralis* (Laurenti, 1768)**

RECORDS. Krujë, 529 m a. s. l.: 11 adults in the center of Krujë; Diviakë, 0–5 m a. s. l.: 4 adults; Llogarë, 867 m a. s. l.: 2 adults; Llogarë, 1507 m a. s. l.: 8 adults; Shelegurë, 1032 m a. s. l.: many subadults and adults (Fig. 20); Ersekë, 993 m a. s. l.: 2 subadults.

OCCURRENCE. Very common (Haxhiu 1998).

DISTRIBUTION. Widely distributed in Europe except in northern parts.

COMMENTS. It was very abundant in anthropogenic habitats (localities No. 2 and 15). There are records of this taxon occurring in the vicinity of all the localities visited (Haxhiu 1998).

*Podarcis tauricus* (Pallas, 1814)

RECORDS. Diviakë, 0–5 m a. s. l.: 2 adults (Fig. 21); Ardenica, 43 m a. s. l.: 1 adult male and 1 male dead on road.

OCCURRENCE. Common species from sea level up to 1000 m a. s. l. (Haxhiu 1998).



Figs. 15–20. The reptiles in the localities where they were recorded in Albania. 15 – *Mauremys rivulata* (Valenciennes, 1833), Butrint. 16 – *Lacerta viridis* complex, female, Llogarë. 17 – *Lacerta viridis* complex, male, Drenovë. 18 – *Lacerta trilineata* Bedriaga, 1886, female, Himarë. 19 – *Podarcis erhardtii* (Bedriaga, 1882), male, Drenovë. 20 – *Podarcis muralis* (Laurenti, 1768), Shelegurë.

DISTRIBUTION. South and east Europe and north-western Turkey.

COMMENTS. There are records of this taxon occurring in the vicinity of both reported localities (Haxhiu 1998).

#### Anguidae

##### *Anguis graeca* Bedriaga, 1881

RECORDS. Diviakë, 0–5 m a. s. l.: 2 subadults; Llogarë, 854 m a. s. l.: 1 adult (Fig. 22); Llogarë, 867 m a. s. l.: 1 adult male and one subadult; Himarë, 5 m a. s. l., 1 dead specimen; Syri i Kaltër, 179 m a. s. l., 1 dead specimen; Ersekë, 993 m a. s. l., 1 adult male. The locality Syri i Kaltër is a new record for Albania.

OCCURRENCE. Common (Haxhiu 1998).

DISTRIBUTION. Endemic to the southwestern Balkans (Albania, Greece and Montenegro).

COMMENTS. All slowworm individuals from Albania analyzed in the genetics study by Gvoždík et al. (2010) proved to be *A. graeca*.

##### *Pseudopus apodus* (Pallas, 1775)

RECORDS. Zogaj, 0–5 m a. s. l.: 1 adult male; Diviakë, 0–5 m: 2 adults. The locality Zogaj is a new record for Albania.

OCCURRENCE. Abundant in many regions of Albania (Haxhiu 1998).

DISTRIBUTION. From southeastern Europe to the Middle East.

COMMENTS. Both localities are in the coastal zone of the western lowland region.

#### Typhlopidae

##### *Typhlops vermicularis* Merrem, 1820

RECORD. Ardenica, 43 m a. s. l.: 1 subadult found in ant-hill near the road close to the cloister (Fig. 23). The locality Ardenica is a new record for Albania.

OCCURRENCE. This species is common both on the plains and in the hilly areas of Albania (Haxhiu 1998).

DISTRIBUTION. From the southern Balkans to the Middle East.

#### Psammophiidae

##### *Malpolon insignitus* (Geoffroy, 1827)

RECORDS. Diviakë, 0–5 m a. s. l.: 1 juvenile and 1 adult (Fig. 25); Llogarë, 1015 m a. s. l.: 1 dead subadult; Dhërmi, 166 m a. s. l.: 1 dead subadult.

OCCURRENCE. *M. insignitus* is the commonest snake in Albanian lowlands and rare at higher altitudes (Bruno 1989, Haxhiu 1980, 1998).

DISTRIBUTION. North Africa (Libya, Egypt), Near East and Balkans.

COMMENTS. This species was separated from *M. monspessulanus* based on differences in their mitochondrial DNA (Caranza et al. 2006). In Albania, the highest altitude at which this species is recorded is that of the Llogarë pass (Haxhiu 1998), which is identical with the locality 7d visited in this study.

#### Natricidae

##### *Natrix natrix* (Linnaeus, 1758)

RECORDS. Diviakë, 0–5 m a. s. l.: 2 dead subadults; Syri i Kaltër, 179 m a. s. l.: 1 juvenile.

OCCURRENCE. This species is very abundant in Albania, mainly around rivers (Haxhiu 1998).

DISTRIBUTION. It occurs from central Europe to China.

##### *Natrix tessellata* (Laurenti, 1768)

RECORDS. Zogaj (Lake Skadar), 0–5 m a. s. l.: 2 dead adults, 1 juvenile and many adults floating in the lake (>10); Piskupat (Lake Ohrid), 699 m a. s. l.: 4 dead adults and many individuals floating in the lake.

OCCURRENCE. Common (Haxhiu 1998).

DISTRIBUTION. From central Europe to China.

COMMENTS. This species occurred at high densities at both localities. Haxhiu (1980, 1998) also reports high densities of this species around lakes.

Colubridae

*Dolichophis caspius* (Gmelin, 1789)

RECORD. Shelegurë, 1032 m a. s. l.: 1 adult.

OCCURRENCE. Haxhiu (1998) mentions that this species is most abundant in lowland and less abundant in mountainous landscapes at 1500 m a. s. l.

DISTRIBUTION. It is occurs in the southern Balkans, southern Ukraine, Russia and the Caucasus.



Figs. 21–26. The reptiles in the localities where they were recorded in Albania. 21 – *Podarcis tauricus* (Pallas, 1814), Diviakë. 22 – *Anguis graeca* Bedriaga, 1881, Llogarë. 23 – *Typhlops vermicularis* Merrem, 1820, Ardenica. 24 – *Platyceps najadum* (Eichwald, 1831), male, Llogarë. 25 – *Malpolon insignitus* (Geoffroy, 1827), juvenile, Diviakë. 26 – *Vipera ammodytes* (Linnaeus, 1758), female, Shelegurë.

***Platyceps najadum* (Eichwald, 1831)**

RECORDS. Llogarë, 1230 m a. s. l.: one 1.3 m long specimen (Fig. 24); Butrint, 5 m a. s. l.: 1 dead subadult; Gjirokaštër, 318 m a. s. l.: 1 dead subadult. The localities Butrint and Gjirokaštër are new records for Albania.

OCCURRENCE. It is a widespread, but not an abundant species in Albania (Haxhiu 1998).

DISTRIBUTION. It occurs in the Balkans and Near East.

COMMENTS. Haxhiu (1998) mentions the occurrence of this species up to 1200 m a. s. l. I found one specimen of this species at an altitude of 1230 m a. s. l.

Viperidae

***Vipera ammodytes* (Linnaeus, 1758)**

RECORDS. Llogarë, 867 m a. s. l.: rocks, only one adult; Shelegurë, 1032 m a. s. l., rocks along Shelegurë Lake, one adult female (Fig. 26); Drenovë, 1143 m a. s. l., the ruins of village, 1 dead adult female.

OCCURRENCE. Common (Haxhiu 1998).

DISTRIBUTION. Southern Europe and northern Turkey.

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