

NOTES ON REPTILES AND AMPHIBIANS OF NORTHEASTERN GREECE AND THE ISLAND OF SAMOTHRAKI

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INTRODUCTION

The northeastern Greek mainland was visited for seventeen days, 31st May to 16th June 1988, during which sixteen reptile and four amphibian species were observed. A further four days, 18th to 21st June, were spent on the northeast Aegean island of Samothraki, resulting in nine reptile and two amphibian species being recorded. On several days, particularly during the latter part of the trip, mid day air temperatures exceeded 30°C and consequently searching proved more productive during the cooler hours of early morning and late afternoon.

A checklist of the Greek reptiles and amphibians was presented by Ondrias (1968), much of it based on records in the classic works of Werner (1938) and Wettstein (1953, 1957). More recently Chondropoulos has been working on an updated checklist of Greek reptiles, the first part of which, on the lizards, was published in 1986. A comparatively small amount of recent research has been carried out in the northeastern Greek mainland and the herpetofauna of the large northeast Aegean islands, including Samothraki, has received little attention.

PRINCIPAL SITES

The locations of the eight mainland areas investigated and Samothraki island are shown in Figure 1.

- AREA 1 Filippi. Dry rocky hills near ancient ruins.
- AREA 2 Kavalla. Well vegetated rocky hillsides and agricultural areas to the east of town.
- AREA 3 Nestos river. Well vegetated river banks. Also rocky scrub covered hills near villages of Toxotes and Galani.
- AREA 4 Kutson. Cultivated fields and marshy areas west of Lake Vistonis.
- AREA 5 Xylagani. Dry scrub covered hillsides.
- AREA 6 Aratos. Well vegetated and agricultural land near river.
- AREA 7 Makri. Small irrigated fields (mainly olives) with dry stone walls. Dry scrub covered rocky hills.
- AREA 8 Lutros. Marshy area and cultivated land with irrigation rivers to south-east near Evros delta. Also dry stony large riverbed with small river south-west of Lutros.

SAMOTHRAKI

Dry rocky scrub in west and south of island. Low mountainous areas with small wooded valley streams near Hora (Samothraki) village.

SPECIES LIST

BUFONIDAE

Bufo viridis Laurenti 1768. Green Toad

Vast numbers of recently metamorphosed juveniles beside small river in wide dry riverbed of area 8. Juveniles equally abundant edges of fields in area 4. So numerous in places at both localities that care had to be taken to avoid stepping on them walking. Juveniles also common at area 6 in small marshy wood. Single adult found at area 3 buried under rock in moist sand. Adult found dead on road in village of Samothraki.



FIGURE 1

HYLIDAE

Hyla arborea (Linnaeus 1758). Common Tree Frog

At area 8 young specimens of 25-30mm abundant in low vegetation, reeds and bushes beside the river. Several of similar size found at area 4 beside irrigation canal.

RANIDAE

Rana dalmatina (Bonaparte 1840). Agile Frog

Adult of a pale grey ground colour found at area 3 in small wooded area near stream.

Rana ridibunda (Pallas 1771). Marsh Frog

Common in suitable habitats in areas 3, 4, 5, 6, 7, 8, several seen on Samothraki, tadpoles in area 2. Extremely variable:- green with dark spots; brown with dark spots and green vertebral stripe; the majority basically brownish with dark spots.

EMYDIDAE

Emys orbicularis (Linnaeus 1758). European Pond Terrapin

Numerous at areas 4 and 8, several at area 6. In area 8 three *E. orbicularis* together with three *Mauremys caspica* found dead in small stretch of water next to which were abandoned empty containers of agricultural chemicals.

Mauremys caspica (Gmelin 1789). Stripe-necked Terrapin

Numerous at areas 4 and 8, common at area 7 where it was often seen in small concrete irrigation channels. Several seen at area 6 and on Samothraki, a few seen in areas 2 and 3. At the three localities where it was sympatric with *E. orbicularis* the two species were to be found in roughly equal numbers.

TESTUDINIDAE

Testudo graeca (Linnaeus 1758). Spur-thighed Tortoise

Six found at area 3, four at area 1, three at area 7, two at areas 2 and 8, one at areas 4 and 6. Six found on Samothraki including a 28cm specimen.

Testudo hermanni (Gmelin 1789). Hermann's Tortoise

Twelve found at area 6, nine at area 3, eight at area 5, seven at area 7, two at area 8. Sixteen of the thirty eight specimens examined (42%) had only single instead of the paired supracaudals usually typical of this species. All had the large scale on tail tip absent in *T. graeca* (Arnold et al 1978). The populations and ecology of the two sympatric tortoise species in N.E. Greece has recently been studied by Hailey (1988), Hailey, Wright & Steer (1988), Wright (1988).

GEKKONIDAE

Hemidactylus turcicus (Linnaeus 1758). Turkish Gecko

Two adults active during evening in rented room at Kamariotissa on Samothraki.

ANGUIDAE

Ophisaurus apodus (Pallas 1775). European Glass Lizard

Two found at area 3, single specimens at areas 1, 2 and 7.

LACERTIDAE

Lacerta trilineata (Bedriaga 1886). Balkan Green Lizard

Often difficult to distinguish from *Lacerta viridis* in the field (see Frör, 1979). Several specimens identified as this species were seen in areas 1, 2, 5, 6, 7, 8 and on Samothraki.

Lacerta viridis (Laurenti 1768). Green Lizard

Common in area 7 and particularly beside the Nestos river in area 3. Quite common on Samothraki. Several seen in areas 4 and 8, a few in area 6. Apparently more abundant than *L. trilineata*, noticeably so in moister habitats.

Ophisops elegans (Ménétriés 1832). Snake-eyed Lizard

Seen in dry rocky areas with sparse vegetation, three at areas 1, 3, 5 and 7, two at area 2.

Podarcis erhardii (Bedriaga 1882). Erhard's Wall Lizard

A predominantly brown small *Lacerta* with light dorsolateral stripes seen on stony scrub covered hillside 1km N.W. of Hora on Samothraki. The subspecies *P. e. riveti* occurs on the island (Chondropoulos, 1986).

Podarcis muralis (Laurenti 1768). Common Wall Lizard

Single adult seen on tree shaded rocks beside mountain stream south-east of Paleopoli on Samothraki. Dark greenish brown dorsal with dark spots. The nominate form *P. m. muralis* is found on the island (Werner, 1938). Likely to replace *P. erhardii* at higher altitudes and in more humid habitats (Arnold et al 1978).

Podarcis taurica (Pallas 1814). Balkan Wall Lizard

Quite common on riverside grassy banks and field edges in area 8, two seen in roadside verges at area 4.

TYPHLOPIDAE

Typhlops vermicularis (Merrem 1820). Worm Snake

Three found in area 7, two in areas 2 and 3. All revealed by turning large rocks, two amongst the nests of ants which, with their larvae, are preyed upon by this fossorial snake.

BOIDAE

Eryx jaculus (Linnaeus 1758). Sand Boa

Young specimen of 29cm total length found under rock in centre of small rock scree on dry stony slope in area 7 between olive fields and coast. Buff ground colour with light brown dorsal blotches which broke up laterally.

COLUBRIDAE

Elaphe longissima (Laurenti 1768). Aesculapian Snake

A slender dark brown snake of 120cm approx. with small white flecks on scale edges was observed at close quarters moving slowly on the top of dense scrub. Although the head was not seen and the snake evaded capture, being familiar with captive specimens, I felt confident of its identity. Found on a lightly wooded, dry, rocky slope just N. of Hora on Samothraki (19.6.88). Not previously recorded from the island (Ondrias 1968, Dimitropoulos, pers. comm. 1988).

Elaphe situla (Linnaeus 1758). Leopard Snake

A 65cm approx. specimen found in partly collapsed dry stone wall between olive fields in area 7. Typical pattern of black edged reddish brown blotches on grey ground colour.

Malpolon monspessulanus (Hermann 1758). Montpellier Snake

Two adults found in areas 3, 6 and 7, one in area 5 and on Samothraki, sloughed skins areas 2 and 8. Found in variable habitats, probably the most common of the Greek snake species.

Natrix natrix (Linnaeus 1758). Grass Snake

Five found beside the river in area 8, one in areas 2 and 3. Three from area 8 lacked the

dorsolateral stripes usually associated with *N. natrix* in south-east Europe. The subspecies *persa* occurs in both striped and unstriped phases in mainland Greece (Dimitropoulos, 1986).

Natrix tessellata (Laurenti 1768). Dice Snake

Common at area 8 where eight were found, single specimens in areas 3 and 6. In the author's experience shows a preference for clear rivers and streams with stony or rocky banks.

TABLE 1

Summary of reptile and amphibian species observed in northeastern Greece and the island of Samothraki (S) and their localities.

SPECIES	SITES								
	1	2	3	4	5	6	7	8	S
<i>Bufo viridis</i>			X	X		X		X	X
<i>Hyla arborea</i>				X				X	
<i>Rana dalmatina</i>			X						
<i>Rana ridibunda</i>		X	X	X		X	X	X	X
<i>Emys orbicularis</i>				X		X		X	
<i>Mauremys caspica</i>		X	X	X		X	X	X	X
<i>Testudo graeca</i>	X	X	X	X		X	X	X	X
<i>Testudo hermanni</i>			X		X	X	X	X	
<i>Hemidactylus turcicus</i>									X
<i>Ophisaurus apodus</i>	X	X	X				X		
<i>Lacerta trilineata</i>	X	X			X	X	X	X	X
<i>Lacerta viridis</i>			X	X		X	X	X	X
<i>Ophisops elegans</i>	X	X	X		X		X		
<i>Podarcis erhardii</i>									X
<i>Podarcis muralis</i>									X
<i>Podarcis taurica</i>				X				X	
<i>Typhlops vermicularis</i>		X	X				X		
<i>Eryx jaculus</i>							X		
<i>Elaphe longissima</i> *									X
<i>Elaphe situla</i>							X		
<i>Malpolon monspessulanus</i>		X	X		X	X	X	X	X
<i>Natrix natrix</i>		X	X					X	
<i>Natrix tessellata</i>			X			X		X	

*Slight doubt. The definite occurrence of *E. longissima* on Samothraki requires confirmation.

DISCUSSION

The twenty species found in the mainland areas investigated are, for the most part, typical and widespread representatives of the Greek herpetofauna. An exception is *Ophisops elegans* which has a limited distribution in northeast Greece. As far as is known to the author the specimens found at Filippi (area 1) are likely to represent the approximate westernmost limit of this lizard's present range in Greece (see map in Arnold et al. 1978, Darewskij & Beutler, 1981). The high number of *Testudo hermanni* with only single supracaudals is of interest and though it is tempting to speculate that this may be a result of hybridization with *T. graeca* further study is required (Hailey, 1988). Although the sighting of *Elaphe longissima* on Samothraki was not entirely satisfactory the snake's occurrence on the island would not be unexpected as, though not common, it is widespread on the adjacent Greek and Turkish mainland.

REFERENCES

Arnold, E.N., Burton, J.A. and Ovenden, D.W. (1978). *A field guide to the reptiles and amphibians of Britain and Europe*. London & Glasgow; Collins.

- Chondropoulos, B.P. (1986). A checklist of the Greek reptiles. 1. The lizards. *Amphibia-Reptilia* 7: 217-235
- Darewskij, I.S. and Beutler, A. (1981). *Ophisops elegans* Ménériés 1832 Schlangenaue. In: Böhme, W. (ed.). *Handbuch der Reptilien und Amphibien Europas*, Band 1: 461-477. Akad. Verlagsges., Wiesbaden.
- Dimitropoulos, A. (1986). Some notes on the colour and pattern variation of the Greek snake fauna in relation to geographic distribution. Third conference on the zoogeography and ecology of Greece. Patras, Greece. *Biol. Gallo-Hellenica* 12: 463-471.
- Frör, E. (1979). Intraspecific differentiation of the green lizards (*Lacerta trilineata* and *Lacerta viridis*) of Greece. *Biol. Gallo-Hellenica* 8: 331-344.
- Hailey, A. (1988). Population ecology and conservation of tortoises: the estimation of density, and dynamics of a small population. *Herpetological Journal* 1(7): 263-271.
- Hailey, A., Wright, J. and Steer, E. (1988). Population ecology and conservation of tortoises: the effects of disturbance. *Herpetological Journal* 1(7): 294-301.
- Ondrias, J.C. (1968). Liste des amphibiens et des reptiles de Grèce. *Biol. Gallo-Hellenica* 1: 111-135.
- Werner, F. (1938). Die amphibien und reptilien Griechenlands. *Zoologica* 94: 1-117.
- Wettstein, O. (1953). Herpetologia aegaea. *Sitz-Ber. Österr. Akad. d. Wiss., math.-naturw. Kl.*, Wien 162: 651-833.
- Wettstein, O. (1957). Nachtrag zu meiner Herpetologia aegaea. *Sitz-Ber. Österr. Akad. d. Wiss., math. -naturw. Kl.*, Wien 166: 123-164.
- Wright, J. (1988). Population ecology of two Mediterranean tortoises in northern Greece - Account of the UCNW-UEA exploration clubs tortoise expedition, Greece 1985. *British Herpetological Society Bulletin* 25: 12-13
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