

## HERPETOLOGICAL NOTES ON THE DODECANESE ISLANDS OF CHALKI AND SYMI, GREECE

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### INTRODUCTION

The following article is an account of the reptiles observed during visits carried out in 1994 to the Greek Dodecanese islands of Chalki and Symi. Five days, 5th-9th May, were spent on Chalki, a further six days, 12-17th May, on Symi. With an area of 58km<sup>2</sup>, Symi lies approximately 25km to the north of Rhodes and just 5km off the southwest mainland of Turkey. Chalki, with an area of 28km<sup>2</sup>, is situated 10km off the west coast of Rhodes and some 40km from southwest Turkey. Both islands can be generally described as hilly, rocky and dry. Vegetation consists predominantly of xerophilous phrygana, with some limited areas of cultivated land in small valleys, mainly small wheat fields and olives.

Early references to the reptiles on Symi can be found in Werner (1935), though the islands herpetofaunal content was but poorly known until Clark's visit in 1970 which resulted in several significant new records, included in a short note (Clark, 1972). A more detailed account of Clark's research on Symi has been recently published (Clark, 1992). Chalki has received very little attention from herpetologists, prior to my short visit the only species definitely recorded on this small island were *Agama stellio* and *Ablepharus kitaibelii* (Boettger, 1888 and Werner, 1935).

### SPECIES ACCOUNT

#### BUFONIDAE

*Bufo viridis* Laurenti, 1768

Though none were found, from local information from several sources, this species can confidently be included among the herpetofauna on Symi. Not previously listed for either island (Lanza & Vanni, 1988).

#### TESTUDINIDAE

*Testudo graeca ibera* Pallas, 1814

On Symi two adults of 20 and 22 cm straight carapace length found active, one in a grassy terraced field, the other on a phrygana covered rocky hillside. A further adult was found dead with a smashed carapace. Clark (1992) reported just a single specimen found, and its apparent scarcity may be partly due to it being killed by locals when seen in the island's limited areas of cultivation.

#### GEKKONIDAE

*Hemidactylus turcicus turcicus* Linnaeus, 1758

Several found on Chalki, where previously unrecorded (Chondropoulos, 1986). On Symi a few specimens found in rock screes and dry stone walls.

*Cyrtodactylus kotschy* Steindachner, 1870

Not previously recorded on Chalki, (Chondropoulos, 1986) where several were found in dry stone walls near the port, only one specimen being found elsewhere on the island. On Symi fairly common and widespread.

## AGAMIDAE

*Agama stellio daani* Beutler & Frör, 1980

Found to be common in rocky habitats on both Chalki and Symi. A gravid female was caught on Symi (15th May) while it was digging a hole under a large flat rock at the edge of a wheat field.

## LACERTIDAE

*Lacerta oertzeni pelasgiana* Mertens, 1959

On Symi fairly widespread though not occurring anywhere in great numbers. Usually seen on the lower parts of dry stone walls in cultivated areas. Dorsal colour fawn, greenish in sunlight, with indistinct light dorsolateral stripes.

*Ophisops elegans ehrenbergii* Wiegmann, 1835

Widespread on Symi, though like the above species also occurring in fairly small population densities. Often found sympatric with *L. oertzeni* but occupying a different habitat niche being more of a ground dwelling species. No lacertid lizards were observed anywhere on Chalki.

## SCINCIDAE

*Ablepharus kitaibelii kitaibelii* Bibron & Bory, 1833

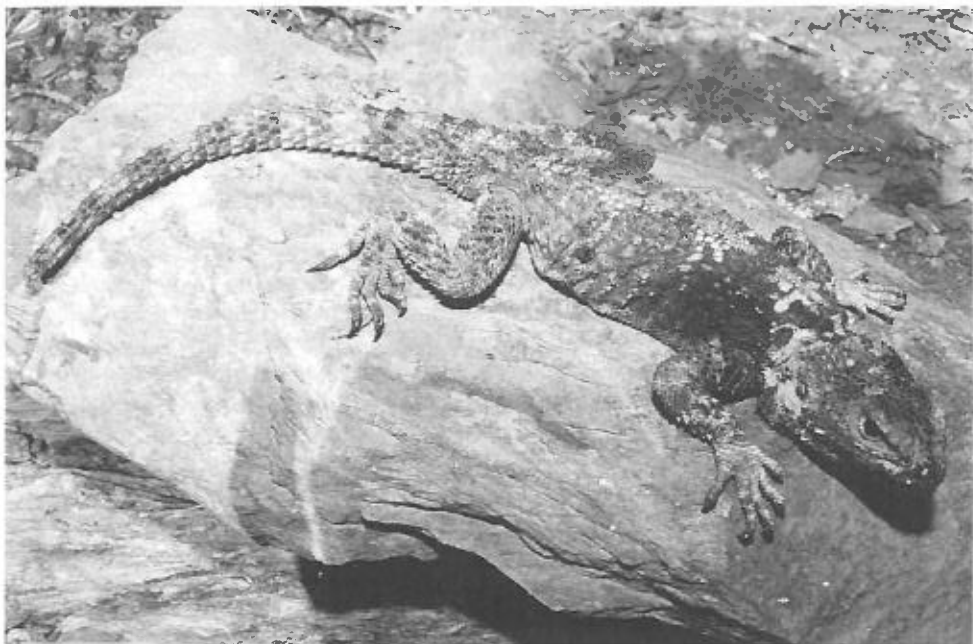
Found to be common on Chalki, less so on Symi. Often seen in leaf litter in shady areas with diffuse sunlight, especially active in warm, cloudy, hazy conditions and following rain.

*Mabuya aurata* Linnaeus, 1758

In Greece, this predominantly middle eastern species, has been recorded only from Samos (Beutler, 1979), Rhodes (Wettstein, 1953) and on Symi (Clark, 1972). None were seen by the author, though while I was on Symi it was recorded there by Wingerde (pers. comm. 1994). Five specimens were reported seen by Clark (1992) in rocky habitats, though none were seen by Clark (pers. comm. 1995) during a subsequent visit to the island. Clearly not particularly common on Symi.



**Plate 1.** - *Hemidactylus turcicus turcicus*. A widespread species in Greece.



**Plate 2.** - *Agama stellio daani*. A familiar sight on many Dodecanese islands.

#### **AMPHISBAENIDAE**

*Blanus strauchi* Bedriaga, 1884

As a result of heavy rainfall just prior to my arrival on Symi, eight adults of this fossorial species were found when turning rocks. In Greece now known from six east Aegean islands, i.e. Samos, Leros, Kos, Symi, Rhodes and Kastellorizo (for references see Buttle, 1990). Those found on Symi, largest 21cm total length, consistent in appearance and resembling those from western Turkey depicted (plate 12c) in Leviton et al. (1992).

#### **COLUBRIDAE**

*Coluber jugularis jugularis* Linnaeus, 1758

Three specimens found on Chalki where previously unrecorded (Chondropoulos, 1989), and four on Symi. Six seen in cultivated areas, one on a phrygana covered hillside. Ophiophagy in this species is well known, on two occasions adults caught on Symi have regurgitated a *Vipera xanthina* (Markoytsas pers. comm. 1994). True cannibalism is also known, an adult on Leros having been found ingesting a larger snake of the same species (Dimitropoulos pers. comm. 1994). One of the most common snakes of the east Aegean islands.

*Coluber nummifer* Reuss, 1834

On Symi, a single adult of 120cm approx. was found active at 17.30 hours on a tree shaded rock scree in a terraced grassy field. Light brown ground colour with prominent dark brown dorsal blotches, similar to that shown on p.83, upper plate, in Gruber (1989). This snake exhibits an extreme degree of polymorphism. Two specimens found and described by Clark (1992) were very different in appearance to the one I observed on the same island, Clark's having a grey ground colour with dark grey cross bars. Twelve *C. nummifer* found by Dimitropoulos, mainly on Leros and Kastellorizo, are described (pers. comm. 1994) as being either uniform pale grey, or grey with large rhomboid black blotches. A similar specimen to my Symi example has been observed by Nilson (pers. comm. 1994) which originated from nearby Rhodes. A robust snake which may exceed 150cm in length (Clark, 1992).

*Eirenis modestus* Martin, 1838

On Symi, a single 16cm juvenile found under flat rock in rock scree on terraced field. Ground colour dull grey, small dark spots on anterior body (var. *semimaculata*), very bright yellow head markings. Unusually in my experience this small specimen bit readily when handled.

## VIPERIDAE

*Vipera xanthina* Gray, 1849

On Symi, a 65cm male specimen was caught when seen active at 19.20 hours, weather clear and sunny, at base of dry stone wall between small wheat fields. Light greyish white ground colour with very dark brown, black edged zig-zag pattern, breaking into blotches at mid body, on dorsum, with small dark brown blotches on flanks. On Symi found mainly in rocky habitats in both cultivated land and areas with trees (Markoytsas pers. comm. 1994). This viper was assumed to be present on Chalki by Boettger (1888) based on observations of 'vipers' by Oertzen. However, although listed for Chalki by Chondropoulos (1989) the presence of *V. xanthina* on this island has not been confirmed and was omitted from previous works (Werner 1938, Wettstein 1953, Ondrias 1968). Local information favours the presence of *Coluber nummifer* rather than *V. xanthina* on Chalki, the former having often been confused with large vipers (Clark pers. comm. 1995; see also Nilson and Andr n, 1986).

## SUMMARY

Thirteen reptile species (7 lizard, 4 snake, 1 amphisbaenian, 1 tortoise) and, almost certainly one amphibian species are now known to occur on Symi. Five reptile species (4 lizard, 1 snake) are now recorded on Chalki. *Blanus strauchi* is recorded from Symi for the first time. New records for Chalki being *Hemidactylus turcicus*, *Cyrtodactylus kotschy* and *Coluber j. jugularis*. A list of species for these islands is given in Table 1. Somewhat surprisingly, lacertid lizards would appear to be absent on Chalki. The suspected occurrence of *Coluber nummifer* on Chalki, rather than *Vipera xanthina* (as has previously been supposed), requires further investigation. Further research is recommended as other species, e.g. *Coluber najadum*, *Telescopus fallax*, *Elaphe situla*, known from nearby islands and S.W. Turkey may be present, especially on Symi, though it is doubtful, due to its small size and limited habitats, if Chalki will be found to have a much richer herpetofauna than that now recorded.

Table 1. List of Species known to occur in Symi and Chalki

SYMI		CHALKI
<i>Bufo viridis</i>	<i>Ophisops elegans</i>	<i>Agama stellio</i>
<i>Agama stellio</i>	<i>Blanus strauchi</i>	<i>Hemidactylus turcicus</i>
<i>Hemidactylus turcicus</i>	<i>Testudo graeca</i>	<i>Cyrtodactylus kotschy</i>
<i>Cyrtodactylus kotschy</i>	<i>Coluber jugularis</i>	<i>Ablepharus kitaibelii</i>
<i>Ablepharus kitaibelii</i>	<i>Coluber nummifer</i>	<i>Coluber jugularis</i>
<i>Mabuya aurata</i>	<i>Eirenis modestus</i>	
<i>Lacerta oertzeni</i>	<i>Vipera xanthina</i>	

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## REFERENCES

- Boettger, O. (1888). Verzeichniss der von Herrn E. v. Oertzen aus Griechenland und aus Kleinasien mitgebrachten Batrachier und Reptilien. *Sitz.-ber. Acad. Wiss., Berlin*. 5; 139-186.
- Beutler, A. (1979). General principles in the distribution of Reptiles and Amphibians in the Aegean. *Biol. Gallo-Hellenica* 8; 337-344.
- Buttle, D. (1990). The herpetofauna of Leros (Dodecanese, S.E. Aegean). *Brit. Herp. Soc. Bull.* 34; 34-38.
- Chondropoulos, B.P. (1986). A checklist of the Greek reptiles. I. The lizards. *Amphibia-Reptilia* 7; 217-235.
- Chondropoulos, B.P. (1989). A checklist of Greek reptiles. II. The snakes. *Herpetozoa* 2(1/2); 3-36.
- Clark, R.J. (1972). New locality records for Greek reptiles. *Brit. J. Herpetol.* 4; 311-312.
- Clark, R.J. (1992). A collection of reptiles from the islands of Symi, Tilos and Gaidaronisi; Dodecanese, Greece. *Herpstile* 17; 19-27.
- Gruber, U. (1989). *Die Schlangen Europas und rund ums Mittelmeer*. Kosmos, Stuttgart.
- Leviton, A.E., Anderson, S.C., Adler, K. & Minton, S.A. (1992). *Handbook to Middle East Amphibians and Reptiles*. S.S.A.R., Oxford, Ohio.
- Nilson, G. & Andr n, C. (1986). The Mountain Vipers of the Middle East - *The Vipera xanthina* complex (Reptilia, Viperidae). *Bonn Zool. Monograph.* 20; 1-90.
- Ondrias, J.C. (1968). Liste des Amphibiens et des Reptiles de Gr ce. *Biol. Gallo-Hellenica* 1; 111-135.
- Werner, F. (1935). Reptilien der  g ischen Inseln. *Sber. Akad. Wiss. Wien, Math.-naturw.* K1. 144, 81-117.
- Werner, F. (1938). Die Amphibien und Reptilien Griechenlands. *Zoologica* 35, 1-117.
- Wettstein, O. (1953). Herpetologia aegaea. *Sitz. ber. Akad. Wiss. Wien, Math-naturw.* K1. 162, 651-833.