

## THE HERPETOFAUNA OF LEROS (DODECANESE, S.E. AEGEAN)

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### INTRODUCTION

A period of two weeks, commencing 10th May 1990, was spent investigating the herpetofauna on the Greek island of Leros. Situated between Patmos, Lipsi and Kalymnos, in the Dodecanese island group of the southeast Aegean, the island lies some 33km off the mainland of Turkey.

Leros, with an area of 52.1 km<sup>2</sup> and a population of 6910, is covered by a series of rocky hills, the highest point being 320 metres. The vegetation consists mainly of *Phrygana*, with *Euphorbia acanthothamnus* prominent on the hillsides, and wooded areas of Pine and Oak. Though possessing a green and fertile appearance with cultivated fields, olive groves, vineyards and orchards around the villages, water on the island is mostly limited to seasonal streams and gullies, with a few small areas of remnant coastal marsh. Due to sea breezes the climate of the islands is more moderate than on the nearby southern mainland; mid day temperatures during my stay averaging 25°C, every day being clear and sunny. The previous winter's rainfall had been very poor and all water courses investigated were found to be totally dry. Based at Alinda, it proved possible to explore much of the island by foot during the time available.

At present, tourism remains relatively limited and has had little effect on the island's natural beauty, though there is great potential for its future development. However, this is unlikely to be of much significance, 'package tourism' being concentrated on the larger islands, i.e. Kos and Rhodes, with international airports.

The herpetofauna of the southeast Aegean islands has attracted a reasonable amount of attention, though much of the recording has been of a somewhat incidental nature. Further, more thorough, investigation of the individual islands is warranted, as is indicated by the continuing discovery of hitherto unrecorded taxa, a particularly well documented example (e.g. Tiedemann & Grillitsch 1986) being that of the Ottoman viper, *Vipera xanthina*. Unknown outside of Asia Minor a little over twenty years ago, recent reports have since revealed its presence on most of the islands in the southeast Aegean.

In order to present as complete an account of the Leros herpetofauna as is currently possible, the following article, as well as reporting my own findings, relies heavily on information supplied (pers. comm. 1990) by Achilles Dimitropoulos and Richard Clark. During 1986 to 1988 Dimitropoulos made several visits to the island. Clark spent a week on Leros in April 1966. I am indebted to both for their cooperation and assistance with the following account.

After being photographed all captured animals were released where found. The localities mentioned in the text are shown in Fig. 1.

### SPECIES LIST

#### BUFONIDAE

*Bufo viridis* Laurenti 1768

The only amphibian recorded on the island, found by Clark (pers. comm. 1990) in a marshy area near Gournas bay. Though not found by the author, local people seemed quite familiar with this species.

#### TESTUDINIDAE

*Testudo graeca ibera* Pallas 1814

Has been found at Temenia (Dimitropoulos pers. comm. 1990), possibly introduced to the island. Interestingly, a local near Ag. Irini informed me that "there used to be tortoises here many years ago, but not now". Known only from Kos in the southeast Aegean islands, occurring more frequently on islands of the northern Aegean (Ondrias 1968).

## GEKKONIDAE

### *Hemidactylus turcicus* (Linnaeus 1758)

Has been found by Dimitropoulos (1987, pers. comm. 1990) inside houses at Lakki. Also clearly described to me by locals as occurring in Alinda.

## AGAMIDAE

### *Agama stellio* (Linnaeus 1758)

Though very timid, the most conspicuous reptile on the island, found to be common and widespread. With the exception of a single pair it was only seen individually, and not in colonies as reported by Clark & Clark (1973) and Bowles (1989) during April in Turkey and Cyprus respectively. Inhabited stone walls, buildings, large rocks, rockpiles, cliffsides; occasionally seen on tree trunks and rubbish dumps. Referred to in some recent literature as *Stellio stellio*.



KEY - 1 Alinda, 2 Ag. Isidoros, 3 Kokkali, 4 Ag. Irini, 5 Koulouki, 6 Lakki, 7 Temenia, 8 Akr. Despoti, 9 Lepida, 10 Xerocampos.

## LACERTIDAE

### *Ophisops elegans ehrenbergii* (Wiegmann 1835)

Found to be widespread and fairly common, though not occurring anywhere in great numbers, an average of seven specimens being seen each day. Three typical adult males captured averaged 46mm snout-vent, 132mm total length.

## SCINCIDAE

### *Ablepharus kitaibelii* Bibron & Bory 1833

A single adult found active during late afternoon near Ag. Irini on shady bank of a hillside terraced field with oak trees and bushes. Not previously recorded on Leros (Chondropoulos 1986).

## AMPHISBAENIDAE

### *Blanus strauchi* (Bedriaga 1884)

Adult of a dull purplish colouration, 16cm total length, found in same area as *A. kitaibelii* when heard moving at 16.30 hours through layer of fallen oak leaves and dry humus. A further, similar specimen found under large rock in dead vegetation below trees on hillside at Alinda. Complete sloughed skin found in rock scree on open, scrub covered hillside at Akr. Despoti. Not previously recorded on Leros, elsewhere in Greece known only from the islands of Rhodes, Kos (Ondrias 1968), Kastellorizo (Valakos & Papapanagiotou 1985) and Samos (Dimitropoulos pers. comm. 1990).

## BOIDAE

### *Eryx jaculus turcicus* (Olivier 1801)

Has recently been collected at Lakki; in the Dodecanese also known from Kos and Kalymnos (Chondropoulos 1989).

## COLUBRIDAE

### *Coluber jugularis jugularis* (Linnaeus 1758)

Adult of 135cm approx. caught in a cut wheat field at Kokkali. Shiny black with continuous, brownish red, fine striping running through body scales, venter red, throat and side of head brownish red. A further five adults, all appearing basically black in colour, briefly seen; two in olive groves at Xerocampos, single specimens in a garden at Alinda, a roadside ditch at Koulouki and a grassy slope between Lakki and Lepida. All rapidly escaped into large bushes and bramble growth. An appraisal of the various forms within the species has recently been given by Clark (1990).

### *Coluber najadum dahli* Schinz 1883

Five adults, a dead specimen and two sloughs found in the Alinda and Gourná bay areas, all appeared typical of the subspecies. A melanistic form, *C. n. kalymnensis*, has been found on the neighbouring island of Kalymnos (Schneider 1979, 1983).

### *Coluber nummifer* Reuss 1834

A single adult seen, killed by local on hillside at Alindas. Dimitropoulos (pers. comm. 1990) has found this snake to be not uncommon and widespread on Leros, even occurring on several of the surrounding small islets; described as variable, ranging from almost uniform grey to boldly marked with black blotches. Bites from this species and the closely related *C. ravergeri* (see Steehouder 1990) have resulted in painful swelling and discolouration.

### *Eirenis modestus modestus* (Martin 1838)

Three of these docile little snakes of 22, 25 and 42cm total length, plus one DOR and a slough, found under large rocks on hillsides around Alinda. Uniform light brown with black markings, obscure on larger specimen, on head and neck. First reported from Leros by Pieper (1970) at Xerocampos. Present in two forms, either uniform or spotted (var. *semimaculata*), on several of the eastern Aegean islands.

### *Natrix natrix persa* (Pallas 1814)

Found by Clark (1968, pers. comm. 1990) to be common in a small marshy area near Gourná. This species has adapted well to dry, barren conditions on central Aegean islands, preying mainly on lizards and geckoes (Gruber & Fuchs 1977). An individual caught by Clark disgorged a *Bufo viridis* and as yet there is no evidence to support a similar dietary adaptation for this snake on Leros.

## VIPERIDAE

### *Vipera xanthina* (Gray 1849)

Despite thorough searching only two dead specimens were seen; a large male of almost 90cm decapitated at Koulouki and a young male killed at Alinda. On a rocky hillside at Alinda, with dry stone walls, olive trees and thick bushes, eight had been killed by a local hotelier in the previous eighteen months. During an evening search of this same hillside a snake, almost certainly this species, was heard rapidly retreating through vegetation into a dry stone wall at 22.30 hours, but not seen. Secretive and almost entirely nocturnal in summer, Dimitropoulos (1987, pers. comm. 1990) has found this viper to be fairly widespread on the island, being especially common around Ag. Isidoros and Alinda.

## DISCUSSION

With the inclusion of *Ablepharus kitaibelii* and *Blanus strauchi*, recorded on the island for the first time, a total of thirteen reptile and one amphibian species are now known to occur on Leros.

In common with other Dodecanese islands, no endemic species occur (Beutler 1979) and all are to be found in adjacent Asia Minor. The strong eastern influence on the island's herpetofauna is demonstrated by the presence of *Blanus strauchi*, *Coluber nummifer*, *Eirenis modestus* and *Vipera xanthina*. The most prevalent species are *Agama stellio* and, the only lacertid lizard to be found on the island, *Ophisops elegans*. Snakes are particularly well represented with seven species present, most evident being the diurnally active *Coluber* species. Due to its fossorial lifestyle *Eryx jaculus*, like *B. strauchi*, is not easily found, though *Eirenis modestus* and *Vipera xanthina* are probably more abundant than they may appear. The sparsity of freshwater habitats, particularly during the dry summer months, is significant for species such as the single amphibian, *Bufo viridis*, and for *Natrix natrix*, neither of which could be found by the author. *Hemidactylus turcicus* is almost certain to be more numerous than is presently indicated, though the status of *Testudo graeca* on Leros would appear to be uncertain.

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The Stinkpot Musk Turtle, its Natural History and Captive Maintenance. <i>Roger Pewtress</i> .....	73
Aspects of Reptile Cage Design. <i>Dave Blatchford</i> .....	79
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