

## NOTES ON THE HERPETOFAUNA OF ASTIPALAIA ISLAND (DODECANESE, GREECE)

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Amphibians and Reptiles of the Aegean Islands are far from being well known, although several researches have been carried out on these vertebrates during the past two decades (e.g. Pieper, 1970; Gruber and Schultze-Westrum, 1971; Lieftinck, 1974; Gruber and Fuchs, 1977; Broggi, 1978; Frör and Beutler, 1978; Beutler, 1979; Beutler and Frör, 1980; Schneider, 1983; Grillitsch and Tiedemann, 1984; Cattaneo, 1989).

In particular, some major biogeographic and faunistic questions still exist for a number of Aegean Islands in which only partial researches, if some, were carried out. This is also the case of Astipalaia Island, which is one of the less well known Aegean Islands as far as the herpetofauna is concerned. The only contributions in which data on the herpetofauna of this island are quoted are those by Zavattari (1929), Wettstein (1937, 1953), and Beutler and Gruber (1977). Things being as they are, we were stimulated to study the Amphibian and Reptile fauna of this island. Our researches were carried out in September 1988 and in June and August 1990.

Astipalaia Island lies between  $36^{\circ} 31'$  and  $36^{\circ} 39'$  N and  $26^{\circ} 14'$  and  $26^{\circ} 30'$  long. E. Although it is administratively assigned to the Dodecanese Archipelago, this island belongs geographically to the Cyclades Archipelago (Fig. 1).

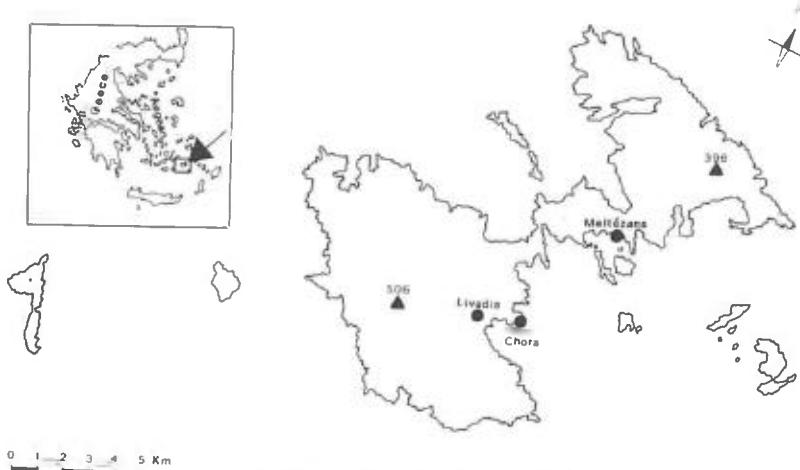


Fig. 1. Map of Astipalaia Island.

The annual rainfall is relatively low (about 500 mm, according to Martelli, 1913a, b), but in some valleys springs and perennial streams exist. The vegetation is characterized by garigue with spiny shrubs (Plate 1). According to Beguinot and Vaccari (1912) and Martelli (1913b), the most important and widespread botanical species are: *Poterium spinosum*, *Juniperus phoenicea*, *Euphorbia dendroides*, *Pistacia lentiscus*, *Genista acanthoclados*, *Calycotome villosa*, *Rhamnus oleoides*, *Salvia triloba*, *Brassica adpressa*.

During our researches we have found one species of Amphibian (*Rana ridibunda*) and three terrestrial species of Reptiles (*Hemidactylus turcicus*, *Cyrtodactylus kotschy*, *Podarcis erhardii*).



Plate 1. Garigue and spiny shrub vegetation on the western side of Astipálaia Island (photo by F.M. Angelici).



Plate 2. A typical nesting site of *Caretta caretta* in a beach of Astipálaia Island (photo by F. Riga).

Two other Reptiles, *Caretta caretta* and *Chelonia mydas*, occur in the marine area of Astipálaia and probably reproduce on the beaches of this island and of some minor satellite islets (Plate 2). Despite our investigations, we were never able to find the lacertid lizard *Ophisops elegans*, which was quoted for the island by Zavattari (1929), though it was not collected by other authors afterwards. Moreover, in our study no snake species were recorded, to further confirm the observations of the preceding authors.

*Rana ridibunda* occurs only in two streamlets sited on the western side of the island. In both these sites tadpoles (in June and in August), as well as adults, were observed. The species was already quoted for Astipálaia by Lanza and Vanni (1988). *Podarcis erhardii* is widespread and numerically abundant on the island, occurring in anthropized areas as well as in natural biotopes. As to the Gekkonids, *Hemidactylus turcicus* was observed and collected only in the vicinities of human buildings, while *Cyrtodactylus kotschy* was observed in several localities either on delapidated walls and buildings or in rocky areas.

The occurrence of the two sea turtle species would suggest the preservation of the island's natural environments, especially the coastal ones.

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#### REFERENCES

- Béguinot, A. & Vaccari, A. (1912). Contribuzione alla Flora di Rodi e di Stampalia. *Atti del Reale Istituto Veneto di scienze, lettere ed arti*, Venezia, 72 (2): 309-330.
- Beutler, A. (1979). General principles in the distribution of Reptiles and Amphibians in the Aegean. *Biol. Gallo-Hellen.*, Athénés, 8: 337-344.
- Beutler, A. & Frör, E. (1980). Die Amphibien und Reptilien der Nordkykladen (Griechenland). *Mitt. Zool. Ges. Braunschweig*, 8: 255-290.
- Beutler, A. & Gruber, U. (1977). Intraspezifische Untersuchungen an *Cyrtodactylus kotschy* (Steindachner, 1870): Reptilia: Gekkonidae. Beitrag zu einer mathmatischen Definition des Begriff Unterart. *Spixiana*, München, 1: 165-202.
- Broggi, M.F. (1978). Herpetologische Beobachtungen auf der Insel Lesbos (Griechenland). *Salamandra*, Bonn, 14: 161-171.
- Cattaneo, A. (1989). Note erpetologiche sulle isole greche di Serifos, Sifnos e Milos (Cycladi occidentali). *Atti Soc. Ital. Sci. nat. Museo civ. Stor. nat. Milano*, 130: 57-76.
- Frör, E. & Beutler, A. (1978). The herpetofauna of the oceanic islands in the Santorini-archipelago, Greece. *Spixiana*, München, 1: 301-308.
- Grillitsch, H. & Tiedemann, F. (1984). Zur Herpetofauna der griechischen Inseln Kea, Spanoupa, Kithnos, Sifnos, Kitriani (Cycladen), Alonissos und Piperi (Nordliche Sporaden). *Ann. Naturhist. Mus. Wien*, 86(B): 7-28.
- Gruber, U. & Fuchs, D. (1977). Die Herpetofauna der Paros-Archipels (Zentral Ägäis). *Salamandra*, Bonn, 13: 60-77.
- Gruber, U. & Schultze-Westrum, T. (1971). Zur Taxonomie und Ökologie der Cycladen-Eidechse (*Lacerta erhardii*) von der Nördlichen Sporaden. *Bonn. Zool. Beitr.*, Bonn, 22: 101-130.
- Lanza, B. & Vanni, S. (1988). Hypotheses on the origins of the Mediterranean island batrachofauna. *Bulletin de la Société Zoologique de France*, Paris, 112 (1-2): 179-196.
- Liefstinck, E. (1974). Waarnemingen aan reptielen op Amorgos, Thira en Milos (Griekenland). *Lacerta*, Utrecht, 32: 129-132.
- Martelli, A. (1913a). L'Isola di Stampalia. Note geologiche e geografico-fisiche. (I). *Bollettino della Reale Società Geografica*, Roma, Serie V, 2 (6): 661-693.
- Martelli, A. (1913b). L'Isola di Stampalia. Note geologiche e geografico-fisiche. (II). *Bollettino della Reale Società Geografica*, Roma, Serie V, 2 (7): 787-816.
- Pieper, H. (1970). Neue Beiträge zur Kenntnis der Herpetofauna der südägäischen Inseln. *Senckenberg. biol.*, Frankfurt am Main, 51: 55-65.
- Schneider, B. (1983). Zur Herpetofauna der Inseln Kalymnos und Telendos (Dodecanes, Ägäis). *Salamandra*, Bonn, 19: 61-70.
- Wettstein, O. v. (1937). Vierzehn neue Reptiliensorten von den südlichen ägäischen Inseln. *Zool. Anz.*, Leipzig, 118: 79-90.
- Wettstein, O. v. (1953). Herpetologia aegaea. *Sber. Österr. Akad. Wiss., Wien*, 162: 651-833.
- Zavattari, E. (1929). Ricerche faunistiche nelle Isole Italiane dell'Egeo. Anfibi e Rettilli. *Arch. Zool. Ital.*, Torino, 13: 31-36.