

HERPETOLOGICAL NOTES ON RHODES

By

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Rhodes is an island in the eastern Mediterranean, approximately 100 miles to the north-east of Crete, and a mere 15-20 miles from the western part of the south coast of Turkey. Politically, its history has been varied: originally the site of three Greek cities (Lindos, Rhodes and Kamiros) which were merged two thousand years ago in the major one of Rhodes itself, it was at that time famous for one of the Wonders of the World, the Colossus, a gigantic bronze figure said to have stood by the entrance to the old harbour of Mandraki.

In A.D. 1306, the island was sold by the governor to the Knights of St. John, who built the present fortifications around the city of Rhodes, so that it became renowned at that time as the best fortified city in the world. Here the knights held out as a bastion against the forces of Islam, until after a long campaign the island finally fell (as the result of treachery) to Suleiman the Magnificent in the year 1522. After this, it remained in the hands of the Turks until 1912, when it was taken by Italy, and only in 1948 was it handed over again to Greece.

To a chequered political history may be added ecological changes which have left their mark on the island. Volcanic in origin, it has been severely weathered in recent millenia. Pine forests have been denuded, and woodland is now very rare in the northern part of the island. Great rivers have obviously run in former times from the now bare mountain tops (rising to 3,000 ft.), and apart from the season of the autumn rains their valleys exist as dry wadis with an occasional trickling stream or shallow pool of permanent water. The deepest of these pools are only a foot or so in depth. The land is arid, and by the month of May the level of the permanent water may be as much as 20 ft. below the surface of the river-bed. Wells are dug in this and the water pumped up (often by the use of windmills), both for direct irrigation along permanent channels and by means of small tanks which contain standing water to a depth of 6 ft. or so.

Not only is the climate a dry one, with the main rains in the autumn, but it is warm and sunny. Mean temperatures vary from 55°C in January to 83°C in August. Grain crops, oranges and tomatoes are already being harvested by May, and later crops include grapes, melons, figs and olives. While some areas in the north of the island are relatively bare, with an aspect reminiscent of Aden or Ingleborough, in this part other areas are well-wooded, with natural regeneration of pine occurring. Elsewhere, the slopes are covered with a maquis type of prickly scrub, very floriferous, but remarkably free of insects, save for aphids and whiteflies, with a varied hymenopterous fauna and a large number of robber-flies. In places, grasshoppers of various types are abundant.

Cultivation occurs not only on the slopes and in the flatter enclosed fields, but in the outlying parts of the dry river wadis, where the presence of orchards or young plantations suggests that the peripheral floodplain is no longer subject to any major water flow. On the flatter lands, cultivation is fairly continuous in small fields, frequently protected from the wind by brushwood or even fences of bamboo. On the slopes, crops are grown briefly, and the land then reverts to the maquis. Orchards of olives or figs make a type of parkland, where the grazing asses, ponies, sheep or goats are tethered, or the orchards may carry grain or other crops, even close against the trees. Hedges as such are non-existent, but scrub and bushes are plentiful, such species as oleander (*Nereus oleander*) being especially abundant in the dry river wadis and along their edges.

Walls are a particular habitat to be found among both modern and ancient sites. Either type of place may have close-set stones with little mortar between them, or rough drystone walling with plenty of crevices which can give shelter to lizards. Vegetation may cluster round the foot of these, or the wall may more rarely be clear of it. Many of the former Italian houses and farmsteads are now tumbling into ruin, and form a similar habitat.

Little appears to have been published about the herpetology of Rhodes, though in ancient times it was particularly known as the Island of Serpents, and was also notorious as a haunt of lizards. Both these are said to have diminished in recent times, presumably with the increasing dryness of the climate and the increase in land reclamation by man. An opportunity was taken to make a somewhat cursory examination of the reptile and amphibian fauna during the course of an entomological expedition to Rhodes in 1964.

Wetland habitats.

In the drier parts of river wadis the Green Lizard (*Lacerta viridis meridionalis*) was found commonly, especially around the vegetation massed along the banks, though occasionally well out into the wadi. Adults could be found as little as 10 yards apart, and occasionally in pairs together. Another lizard (*Mabuya vittata?*) could also be found in similar terrain. Both species are very shy, and retreat rapidly through the dead leaves and bushes as soon as they are aware of human presence. On the bushes may sometimes be seen treefrogs (*Hyla savignyi*). On one occasion, a snake (*Natrix natrix persa*) was found proceeding in the full heat of the afternoon along a completely dry wadi.

The wetter parts of the wadis are inhabited by terrapins (*Clemmys caspica rivulata*) and by edible frogs (*Rana esculenta*). The former may be

found in the pools or even the shallows, basking or hiding under debris. As they are an article of food for the human population, their shyness is understandable. One was discovered on land in a narrow wadi near the water. The frogs may occur in an atypical habitat for the species: in this land where deep pools are scarce, they are found in and near the verges of even shallow water, and may remain unmoved while a human passes by. When disturbed, they sometimes enter water which is deep enough, or jump into the shallows and then out again, as if conscious of the inadequacy of their refuge. The largest frog seen was about 4 inches long, and all were a mottled brown in colour. Frogs as small as three inches would call from two inches of water in the sun. In contrast, a small one was seen to dive into the depths of an irrigation tank from its shallow margin. Large tadpoles (1½ inches long) were seen on one occasion in May, in addition to smaller ones.

As well as being found on the vegetation by day, treefrogs (*Hyla savignyi*) were also calling by night from both foliage near the irrigation tanks and from rockwork at water level, as well as floating in the water of an artificial pool a foot deep. Green toads (*Bufo viridis*) were both found by night in this pool, and during May in the form of newly metamorphosed young in the damp sand by flowing water in the river wadis.

Near the mouth of one river in western Rhodes, there was a "slack" not more than thirty yards from the sea, whose water was almost certainly brackish. Both terrapins and edible frogs were seen in this. In the dry sand nearby, a specimen of the ocellated skink (*Chalcides ocellatus*) was captured.

Dry habitats.

Stone walls form a particular type of habitat, and were inhabited particularly by the agamid *Agama stellio* and a lacertid lizard (*Lacerta danfordi pelasgiana*). Four or five of the agamas might be found in about 30 yards of wall, while the lacertids occasionally occurred, sometimes in pairs. On white walls they were represented by a particularly pale form. In the hotter summer months, their tails take on a striking blue coloration. Both species retire rapidly into crevices when disturbed. In addition to these, a single snake was observed at the base of a wall below the ancient ruins of Kamiros. This had the markings of a grass snake (*Natrix natrix*), but seemed abnormally thin for a length of 2 feet, if of this species. It may, however, have been *N. natrix persa*. One other species of snake was also seen, on dry earth in an area of walls, retiring down a hole after a threat display. It was probably the sand viper (*Vipera ammodytes meridionalis*).

While no particular species were noted in the pinewoods of the south of the island, the same lizard (*L. danfordi*) was seen both there and among the hardwood trees in the Petaloudes valley, in each case retiring up the trunk of a tree when disturbed. Although none were present in the actual woodlands, green lizards (*L. viridis trilineata*) were found in some abundance in suitable terrain just outside. Edible frogs were present in the woodland pools, and treefrogs were to be found on the bushes.

Although the maquis appeared suitable terrain for tortoises, none was found, and no reptiles or amphibians were noted in this, save where bare rock protruded through the scrub, and such species as *L. viridis* could be found. Orchards and cultivated fields were not searched, but lizards (especially *L. viridis*, *M. vittata?* and *A. stellio*) were present along the field boundaries.

In summary, the island of Rhodes is an arid land containing a number of habitats which are filled by relatively few reptiles and amphibians, even though these are more varied than those comprising our own fauna. Species seen or collected are listed below, but stress must be laid on the inadequacy of this list, in view of the very brief investigation carried out.

SALIENTIA.

Ranidae.

Rana esculenta. Occurs in even the smallest trickle of water. Small size, mottled grey colouring. Calls by day. Large (1½ inch) tadpoles seen in May could only have belonged to this species.

Bufo *viridis.*

Found in suitable moist places, both by day and by night.

Hylidae.

Hyla savignyi. Common. On foliage by day, and in breeding congregations by night during May. These would start calling an hour or more before dark.

SQUAMATA.

SAURIA.

Lacertidae.

Lacerta viridis trilineata. Found around bushes in dry habitats especially along dry river wadis, but also on road margins, etc.

L. danfordi pelasgiana. On and near walls, retiring to holes in these when disturbed. In the Petaloudes Valley this species completely ignores the warningly coloured Jersey Tiger moth (*Callimorpha quadripunctaria*) which is abundant there, though cryptic moths are eagerly taken (M. Rothschild, pers. comm.).

Amphisbaenidae.

Blanus strauchi. Said to occur on Rhodes (Hellmich, 1962) but not seen there by us.

Scincidae.

Mabuya vittata (?). In the same habitat as *L. viridis*, but not so abundant.

Chalcides ocellatus. Only found once, in sand on the seashore in western Rhodes, but probably frequent in suitably sandy places.

Agamidae.

Agama stellio. Plentiful on walls everywhere. Often seen while crossing roads.

SERPENTES.

Colubridae.

Natrix natrix persa. Found in a dry riverbed below Petaloudes. Possibly seen at Kamiros.

Viperidae.

Vipera ammodytes meridionalis. A snake seen on one occasion in north-west Rhodes (M. Rothschild, pers. comm.) may have been of this species.

TESTUDINES.

CHELONIOIDEA.

Cheloniidae.

Clemmys caspica rivulata. Apparently abundant everywhere in suitable moist habitats.

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REFERENCE.

Hellmich, W. (1962). (Ed. A. Leutscher.) Reptiles and Amphibians of Europe. London. Blandford Press