

OBSERVATIONS ON THE AMPHIBIANS AND REPTILES OF THE ALGARVE, PORTUGAL

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INTRODUCTION

The herpetofauna of Portugal resembles very closely that of adjacent Spain and a number of works have been published describing the amphibians and reptiles of the Iberian Peninsula (e.g. Bosca 1877, Palaus and Schmidler 1969, Crespo 1972, Salvador 1974). This paper reports on a collection of amphibians and reptiles made during a field trip in September 1982 in the Algarve region of southern Portugal. Brief comments on the biotope and behaviour in the field are given where possible on those species listed. All captured animals were released at the site of capture after photographic records were made.

The region investigated was the lowland area situated to the south of the Serra de Monchique and the Serra do Caldeira which approximates the southern limits of the geological Meseta (Fig. 1). The summers in this area have a low rainfall and large numbers of days with clear skies; the rainfall principally a feature of the short winter months.

BIOTOPE

Plates 1, 2, 3 and 4 show features of the habitats of the main areas investigated. Plate 1 shows a pool formed out of a partially dried up river system bordered on both sides by densely bushed areas. The water in this and other pools was extremely murky. This was a product of the loose reddish soil which dominated the whole region. Plates 2 and 3 were sites very close to each other consisting of rather open areas with low bush (Plate 2) and a large pond in which the water was moderately clear (Plate 3). Records of the temperature at this site showed air temperatures to vary from 23-9°C (cloudy) to 28°C (clear skies). The water temperatures averaged at 22°C and the substrate temperature (5mm into the soil) 22.4°C. Plate 4 was principally a gecko habitat consisting of large rocks bordering a partially dried up stream.

LIST OF SPECIES

Amphibia

Anura

Discoglossidae

Discoglossus pictus (Oth 1837)

One adult and several recently metamorphosed froglets found at the area shown in Plates 2 and 3. The adult was located at a puddle about 30 metres from the pond; the juveniles at the banks of the pond and in the vicinity of the drystone wall.

Ranidae

Rana perezi (Seonae, 1885)

Found in most of the habitats investigated often at distances from standing water. Some individuals were observed basking at the banks of the pond in Plate 3. Only a few large individuals were captured or observed and the densities of the various populations appeared to be much lower than that recorded in North Africa (Meek in press). Basking behaviour and body temperatures in a North African population have been described (Meek, 1983).

Reptilia

Chelonia

Emydidae

Emys orbicularis (Linnaeus, 1758)

Several individuals observed basking at the site shown in Plate 1, but were very alert and quickly dived when aware of our presence. Basking was observed on an overcast day on bunches of flattened reeds. Found here in much larger bodies of water than those observed in Yugoslavia where they inhabited very small ditches (Meek and Inskeep, 1979).

Sauria

Gekkonidae

Tarentola mauritanica (Linnaeus, 1758)

Found living in rocky places, disused buildings and under bridges but most abundant at the area shown in Plate 4. Several individuals were further found in this area, but under a bridge which crossed the partially dried up stream. Other individuals were located near the coast under bridges. Several animals were observed active in the shade during the daylight hours.

Hemidactylus turcicus (Linnaeus, 1758)

One individual found in association with *Tarentola mauritanica* at the area shown in Plate 4.

Lacertidae

Podarcis hispanica (Laurenti 1768)

One individual, an adult, observed close to thick bushes in association with *P. algirus* at the area shown in Plate 1. When approached too closely it quickly retreated into the bushes.

Psammodromus hispanicus (Fitzinger 1826)

Several of these small lizards were found at an open unshaded grassy area which was close to a drystone wall surrounded by denser vegetation (Plate 2). When initially located they were usually active on the open area but headed for the wall when chased and one adult lizard shed a portion of its tail when captured. All specimens examined at close hand had the white striped pattern with blackish bars and white undersides described by Arnold *et al* (1978).

Psammodromus algirus (Linnaeus, 1758)

Found in densely bushed areas which formed the perimeter of the pools shown in Plate 1. Several juveniles were found in leaf litter at the base of a spiny shrub plant, where a large adult (Plate 5) was also caught. Several individuals were seen running across clearings between the bushes.

Acanthodactylus erythrurus (Schinz 1833)

One individual, one adult, observed at close quarters at the drystone wall shown in Plate 2 where it eventually retreated down amongst the rocks.

Serpentes

Colubridae

Natrix maura (Linnaeus 1758)

Very common at the pond shown in Plate 3. Both adults and juveniles found. One particular part of the pond margin appeared to be a favourite haul-out site and was observed to be regularly used as a basking area; Plate 6 shows a juvenile located at this site, the substrate consisting of shale. Other favourite sites for basking were between the tall reeds which bordered the pond's edge. Large numbers of fish inhabited the pond in addition to *R. perezi* and *D. picta*. These snakes were much more wary than those previously encountered in North Africa (Meek, in press), but similar to the North African population, did not attempt to bite when captured; Linley (1981) has also commented on this passive behaviour. One individual, in the sloughing process, was found several hundred metres from the pond at the drystone wall shown in Plate 2, where several shed snake skins were also found.

TABLE 1. Summary of the site locations of Algarve amphibians and reptiles. Site numbers refer to habitats described in the figures (i.e. Site 1 = Plate 1). Details are also given if species were located at areas other than those illustrated.

	Site Number				Found at areas not illustrated
	1	2	3	4	
<i>Discoglossus pictus</i>		x	x		
<i>Rana perezi</i>	x	x	x		x
<i>Emys orbicularis</i>	x				
<i>Tarentola mauritanica</i>				x	x
<i>Hemidactylus turcicus</i>				x	
<i>Podarcis hispanica</i>	x				
<i>Psammodromus hispanicus</i>		x			
<i>Psammodromus algirus</i>	x				
<i>Acanthodactylus erythrurus</i>		x			
<i>Natrix maura</i>		x	x		

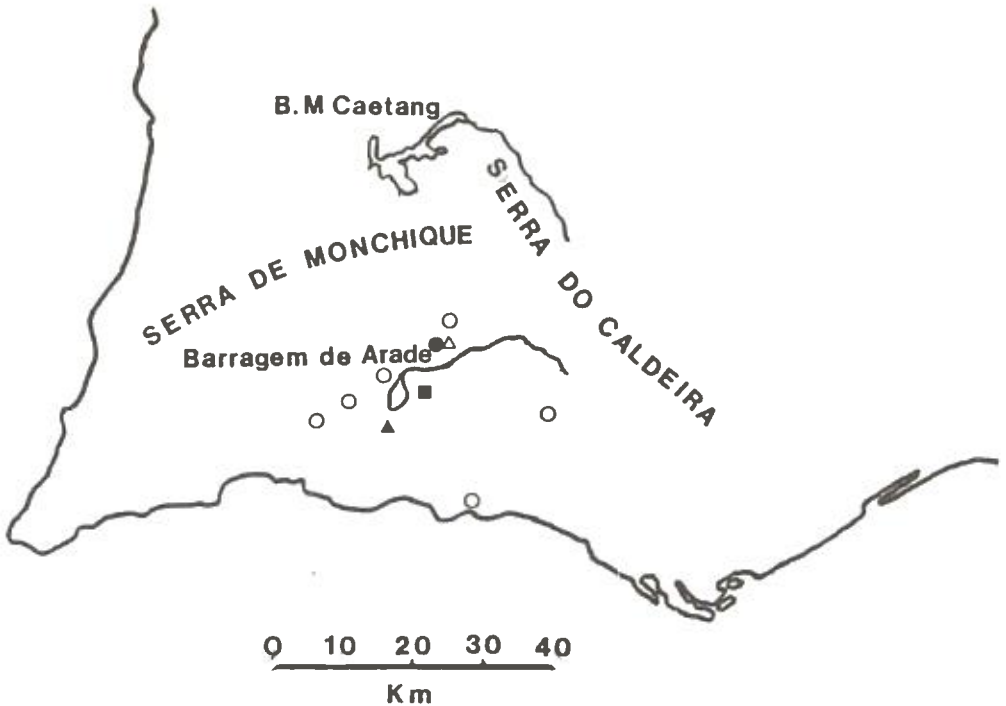


Fig. 1. Map of the Algarve showing the localities of Plate 1 (■), Plate 2 (●), Plate 3 (△), Plate 4 (▲), and other sites where amphibians or reptiles were found (○).



Plate 1. Area of scrub terrain surrounding a partially dried up river system. A habitat for several species of amphibian and reptiles including the pond turtle *Emys orbicularis*.



Plate 2. Area of scrub surrounding a drystone wall which was central to a large open grass covered area. The most abundant species here was the lizard *Psammodromus hispanicus*.



Plate 3. A pond which was habitat for water snakes (*Natrix maura*) and amphibians. This view shows the gradual sloping banks used by *N. maura* as basking sites.



Plate 4. Habitat where two species of gecko were found. Deep crevices in these rocks were used as homesites.



Plate 5. Adult male *Psammodromus algirus* found 5km east of Silves (See Fig. 1).



Plate 6. Juvenile *Natrix maura* found 10km south of San Marcos de Serra (See Fig. 1)

DISCUSSION

A total of eight species of reptile and two species of amphibian were located on this field trip. All those forms observed were among the commoner species of the Iberian peninsula. The most frequently observed species, both in terms of numbers and individuals and presence in the habitats surveyed, was the frog, *Rana perezi* which was found in all the moist areas (see Table 1) although Honegger (1978) has recorded that in Portugal this species is in decline. The areas where the lizards *Psammotromus algirus* and *P. hispanicus* were found agree well with the habitat description given for these species generally by Arnold et al (1978) but the inability to locate any of the snake species from the region, other than *N. maura*, was possibly due to the particular types of habitat investigated, which were mainly moist areas, usually with standing water present.

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