

## THE HERPETOFAUNA OF JERSEY

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The most recent and comprehensive report on the reptiles and amphibians of the Channel Islands is that of Le Sueur (1976). Unfortunately most herpetologists are not aware of that account and usually cite Frazer (1949) as being the most recent authority on the subject. This article has been written partly to draw attention to Le Sueur's work but also to update it and to discuss some of the conservation problems facing the herpetofauna of Jersey.

### AMPHIBIA

Three species of amphibians occur on Jersey. These are the Common Toad (*Bufo bufo*), the Agile Frog (*Rana dalmatina*) and the Palmate Newt (*Triturus helveticus*). No other species have been reliably reported from the island.

*Common Toad (Bufo bufo)*. This is the best known amphibian on Jersey. Although less common than it was, the toad can still be found almost throughout the island during the summer when the adults have dispersed from their breeding ponds. As pointed out by Le Sueur (1976) toads are commonly found using garden ponds as breeding sites, probably as a result of the destruction of more natural sites. This is certainly the case near built-up areas, but toads breed in large numbers in natural ponds at places like Les Landes in the north-west of the island and Noirmont and Quaisné in the south-west. Most of the inland valleys of Jersey have been flooded to provide water for the human inhabitants and the reservoirs so created are not suitable breeding sites for toads though the small ponds and streams that once existed in the valleys undoubtedly were. At Mont Cochon, just west of St. Helier, migrations of significant numbers of toads to their breeding ponds still occur during late February and March. A warning sign has been installed as part of the FFPS Toads on Roads campaign.

*Agile Frog (Rana dalmatina)*. The only site known to the author where agile frogs breed is at Ouaisné Bay. Mont Mado ponds mentioned by Frazer (1949) were filled in some years ago. Although Le Sueur (*op. cit*) mentions six other localities where spawn has been laid these are tiny populations, if indeed they still exist and are probably not viable in the long term. This places great importance on the site at Ouaisné which, unfortunately, does not seem to be as secure as its biological importance merits.

The site consists of a pond about 1000m<sup>2</sup> adjoining an area of gorse heath. In winter the pond is fairly open and Agile Frogs can be seen in it during March, but by June it is almost completely choked with reeds and, although it is very difficult to check, it seems likely that few tadpoles are able to survive. On the gorse heath there are, or were, several smaller ponds of varying dimensions up to about 100m<sup>2</sup>. These ponds remain relatively free of vegetation throughout the year and in February and March are full of breeding toads and frogs.

In the years 1980-86, it became progressively harder to find frog spawn in the gorse ponds, presumably due to a decrease in the numbers of frogs breeding. In early June 1986, the ponds dried out completely killing several thousand tadpoles of both toads and frogs. Despite the wet summer of 1985, the ponds had only just filled up by the end of January, 1986. Usually they are full all winter. It seems that there may be a problem with the water table at Ouaisné. The amount of gorse on the heath has increased during the last 3 years and some ponds that were accessible are no longer so, while others appear to have become completely overgrown. If this trend continues the Agile Frog will become extinct at Ouaisné within the next 5 years.

Ouaisné supports populations of all the Jersey herptiles, bar the Wall Lizard (*Podarcis muralis*) as well as some plants that are found nowhere else on the island. Preliminary work has begun on a Management plan for Ouaisné Common (Charmaine Chapon *pers. comm.*), but a detailed study of the hydrology of the area and the ecology of the Agile Frog is sorely needed. Although frogs are no longer used for dissection in Jersey schools, and therefore spawn is not collected by teachers, the author knows of several people, who really should have known better, who have

taken frog spawn for 'conservation purposes' during the 1980's. Almost needless to say, not a single frog was put back to Ouaisné as a result of these initiatives.

*Palmate Newt (Triturus helveticus)*. Very little can be added to Le Sueur's account of this species. It is very widespread and probably common in many places on the island. It occurs at Ouaisné, at St. Brelades, and there is a small population breeding in a pond at the Zoo in Trinity. Specimens that have just emerged from hibernation and are walking to their breeding ponds are sometimes mistaken for lizards which may account for the occasional anomalous record of the latter.

## REPTILES

Four species, three lizards and a snake, appear to be native to Jersey and a feral species of terrapin occurs at St. Ouen. Four species of marine turtles have been recorded stranded on Jersey beaches.

*Slow worm (Anguis fragilis)*. This is the most widespread reptile in Jersey. Le Sueur (op. cit.) states that its numbers have decreased this century but it is still common. The author found neonate specimens in a garden in the centre of St. Helier in 1982 and the species occurs on the dunes at Les Meilles, along the north coast cliff path, in the Zoo and doubtless throughout the island in the suitable habitat.

*Wall Lizard (Podarcis muralis)*. Of the three Jersey lizards the one with the most enigmatic distribution is the wall lizard. It is found in the north-east corner of the island between Gorey Castle and Bonne Nuit Bay and is restricted to rocks along the cliff sides. There is also a thriving population on St. Aubin's Fort. The Lizards were introduced there some years ago. Why the species does not occur naturally west of Bonne Nuit Bay in apparently suitable habitat has never been explained, but the matter is currently under investigation by Chris Perkins of the University of Bristol and hopefully an answer will be available in two or three years time. The most readily visible population is on the walls of Gorey Castle.

*Green Lizard (Lacerta viridis)*. This attractive species is probably the best known of all Jersey reptiles. With regards to its distribution the map in Le Sueur (1976) is still substantially correct but there may be small populations scattered along the north coast which have not been recorded before. The species stronghold is the south west of the island on the dunes, and in the heath along the cliff tops at Noirmont and Corbiere.

In 1984 the Education Department of the States of Jersey provided a grant, in honour of the 25th anniversary of the founding of the Jersey Zoological Park, for someone to undertake an ecological study of the Green and Wall lizards. This was in response to widespread concern that the former species, in particular, may be declining. Chris Perkins started preliminary work in October 1985 and 1986 was the first full season in the field. First results indicate that some of the populations, especially those near built up areas, have become extinct and that the overall distribution of the species has become more fragmented. However, the fact remains that in some places, e.g. on the dunes at Quennevais or in the gorse and broom at Petit Port it is possible to see many lizards of all ages without difficulty. Habitat destruction and the depredations of domestic cats have undoubtedly contributed to any decline that may have occurred.

Frazer (1949) commented on the colouration of Jersey Green lizards and drew attention to the fact that they differ markedly from specimens on the mainland of Europe. His observations have been borne out by other people familiar with both Jersey and European Green lizards. (Roger Avery pers. comm.) Jersey lizards are much darker, sometimes appearing to be almost black with green spots. Lest this should encourage someone to describe the Jersey population as a new race it must be said that no particular distinguishing characters have ever been noted. It seems likely that the Jersey population is simply a well marked local variety that falls within the total variation that occurs on the mainland.

*Grass Snake (Natrix natrix)*. The grass snake is probably the most inconspicuous herptile to be found in Jersey and it is consequently easy to underestimate its numbers. However, it does appear to be rare even in the few places where it is definitely known to occur (e.g. St. Ouen's pond). Although it has been found at widely scattered localities on the island in recent years the overall status of the population is a complete mystery. Frazer (1949) pointed out the resemblance between Jersey specimens and those of the Iberian peninsula.

*Red-eared Terrapin* (*Pseudemys scripta elegans*). There is a large, feral, population of this species in the south canal, just south of St. Ouen's Pond. It is undoubtedly derived from 'liberated' pets, but whether any reproduction has occurred, is not known. Specimens are frequently caught by anglers.

*Kemp's Ridley Turtle* (*Lepidochelys kempi*). One record, a specimen found alive at Beaumont on 10th December 1938. Now in the British Museum.

*Loggerhead turtle* (*Caretta caretta*). Five records: La Mare Slip, 17th November, 1950 (specimen was alive and taken to London Zoo, in early 1986 it was transferred to the Blackpool Tower Aquarium); St. Ouen's Bay, December 1954 (immature female, now in the Jersey Museum); St. Aubin's Bay, 5th February 1955 (now in the British Museum); Le Groun Point, St. Brelades, 21st February 1960 (now in the Jersey Museum); Bel Royal, St. Lawrence, 3rd February, 1977, (freshly dead, specimen now lost).

*Hawksbill Turtle* (*Eretmochelys imbricata*). One record of a dead specimen (now lost) in St. Ouen's Bay during 1948.

*Leatherback Turtle* (*Dermochelys coriacea*). Two records: a live specimen in the sea off Jersey in August or September 1965 and a long dead specimen in Giffard Bay on the north coast from 30th October 1985.



## DISCUSSION

Although conventional wisdom has it that the reptile and amphibian fauna of Jersey has suffered a population decline during the post-war period, it is very difficult to produce hard evidence of the nature or extent of this decline. Compared with Frazer's (1949) account, it appears that some species (e.g. Slow worm and Wall lizard), are still found in more or less exactly the same places that he described while others (e.g. Green lizard and Agile frog) appear to have become much less common. As a first step towards understanding these population trends a field study of the Green and Wall lizards has been undertaken and we should have some results in a few years time. However, a far more urgent conservation problem appears to be the Agile frog. This species is found at only one site on the island, Ouaisné Bay, and this site appears to be undergoing ecological changes that are not yet understood and are only now beginning to be studied. As all the other Jersey reptiles and amphibians, bar the Wall lizard, occur at Ouaisné, the importance of this site cannot be overstated. It would be tragic if an island of such comparative wealth and sophistication were to allow Ouaisné to be lost through neglect.

As long as the sand dune system at St. Ouen is protected there will be Green lizards in Jersey. Likewise the Wall lizard is thriving in several places, particularly man made ones. While these places are protected the wall lizards will survive. The problem in Jersey is that human pressure on all natural resources, particularly land and water, is intense and it is hard to see how the long term safety of some of the more fragile sites can be absolutely guaranteed. Jersey, like most other places, has its pro-development lobby and their star seems to be in the ascendant at present.

All Jersey's reptiles and amphibians are protected from being bought, sold, killed or exported by the Wildlife Protection Law of 1947. However the protection of certain habitats, particularly at Ouaisné which is on common land, is much less rigid. Currently, the Island Planning Law is being amended to bring it into line with the U.K. Wildlife and Countryside Act concerning sites of Special Scientific Interest.

#### REFERENCES

- Frazer, J.F.D. (1949). The Reptiles and Amphibia of the Channel Islands and their Distribution. *Brit. J. Herp.* 1: 51-53.
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