

NATURALIZED REPTILES AND AMPHIBIANS IN BRITAIN

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The indigenous wildlife of Britain is meagre indeed compared to that of continental Europe. In the final period of glaciation of the Ice Age the huge sheets of ice extended well down into southern England: only when they had receded could the animals then living in warmer climes return from their havens in southern Europe. Colonization of Britain was simplified by the fact that at that time the gap now occupied by the English Channel was dry land. When, some 5,000 to 10,000 years ago, the so-called 'Land Bridge' was invaded from the north and south by the sea, and continental Europe split from the British Isles, those species already in Britain became divided by the Channel thus formed from those which had not yet reached so far north. Since that time, additions to the British fauna have been forced — with or without the assistance of man — to face the barrier of the sea.

Alien animals have been introduced into Britain for three main reasons, — economic, ornamental and sporting: a fourth reason has been the 'curiosity factor' — in other words the animal has been introduced and released simply out of curiosity to find out what would become of it. It is into this last category that the naturalized amphibians and reptiles in Britain all fall.

The earliest known attempt to naturalize the Wall Lizard (*Podarcis muralis*) in Britain was in 1932, when a dozen were released at Farnham Castle in Surrey, reinforced by two more in the following year. In 1951 Dr Malcolm Smith announced the rediscovery of this colony in the garden of a nearby private estate, to which they had apparently migrated.

In 1937 two hundred Wall Lizards were released at Paignton in Devon, where a few remained until the 1960s.

In 1954 Lord Chaplin turned out 15 Wall Lizards in the garden of his home at Totnes in Devon where they bred annually, and by 1976 numbered around 100 individuals.

Two apparently flourishing colonies of Wall Lizards were discovered in about 1962 on the Isle of Wight, of which one — at Ventnor — is believed still to exist.

In 1964 an unknown number of Wall Lizards were liberated on East Burnham Common near High Wycombe in Buckinghamshire, but it is not known whether they have survived.

The only other certainly extant colony of Wall Lizards, which has been established since at least 1957, is at Hampton Court in Middlesex.

The most important liberation of Marsh Frogs (*Rana ridibunda*) in Britain was made by Mr E. P. Smith (better known as Edward Percy, the playwright), who in the winter of 1934-5 introduced a dozen to a pond in his garden at Stone-in-Oxney in east Kent, bordering the Walland, Romney and Denge Marshes.

By 1979 Marsh Frogs were widely but patchily distributed over more than 100 square miles of Romney Marsh and the Rother Levels, extending as far west as the eastern end of the Pevensey Levels near Bexhill. They are also to be found in the southern half of the Isle of Sheppey and on the Iwade marshes in north Kent. New areas are still being colonized, although more slowly than before, and there is evidence of some decline in numbers in recent years.

As a colonizer the Marsh Frog is undoubtedly the most successful British alien amphibian. A number of factors have helped it to become so firmly established, of which probably the most important are the suitability of the habitat and an abundance of food.

Romney Marsh — an area devoted almost entirely to sheep farming — consists of small fields divided by ditches and sewers edged by narrow strips of ungrazed grassland, with few hedges. The future of the Marsh Frog there depends almost completely on the continuation of sheep farming. Should this ever be abandoned in favour of arable farm-

ing, which would entail the in-filling of the waterways and their replacement by hedges, the Marsh Frogs would almost certainly soon become extinct.

It is conceivable that the Edible Frog (*R. esculenta*) inhabited southern England during the climactic optimum around 4,000 B.C., although no fossil evidence has so far been discovered to support this theory. Edible Frogs may well have been brought to Britain by Roman gourmets together with the Edible Dormouse (*Glis glis*), but there is no reason to suppose that either ever escaped or were released into the countryside.

Edible Frogs are known to have been established at Foulmere Fen in Cambridgeshire at least by the 1770s, but no evidence exists to show how they arrived there.

The earliest recorded introduction of Edible Frogs into Britain was in 1837, when Mr George Berney imported both frogs and spawn from Paris to his home at Morton near Norwich in Norfolk.

In 1853 Mr Alfred Newton, F.R.S., discovered a colony of Edible Frogs between Thetford and Scoulton, also in Norfolk, where they were said to have been established since at least 1820. Twenty-three years later Newton and Lord Walsingham found another colony at Stow Bedon in the same area, which had apparently been in existence for over a decade.

Between 1840 and 1910 many introductions of Edible Frogs were made in various parts of England (as well as at least one in Scotland), some of which may still survive today.

Most of the more recent introductions have taken place in and around the London area. From 1929-1961 Edible Frogs were to be found in a number of gravel pits at Ham in Surrey, from where they spread to Twickenham, Teddington and Sudbrook and Richmond parks. A colony on Esher Common, dating from before 1958, may still survive.

In north London Edible Frogs were established in various ponds on Hampstead Heath between 1939 and 1965. In 1948 colonies of over 100 were discovered in the two Highgate Ponds and in Viaduct Pond. Other metropolitan and suburban populations have existed in Epping Forest, and at Walthamstow, Snaresbrook and Leytonstone.

In view of the many colonies which have been established in the past, it is surprising that so few are certainly extant today; in 1976, when the author was gathering material for his book on naturalized animals in Britain, only eight colonies (3 in Norfolk, 4 in Sussex, and one in Surrey) were known definitely to exist; there may well, however, be other so-far undocumented populations in other parts of the country.

What is believed to be the only extant colony of European or Green Tree Frogs (*Hyla arborea*) in Britain was discovered in 1962 in a small pond on the edge of the Beaulieu Abbey Estate in the New Forest in Hampshire, where it has apparently existed for some 70 or 80 years. The entire colony is believed to number only about a dozen to twenty individuals, but this seems enough to maintain a viable population. The pond, which measures about 80 feet in diameter and is surrounded on three sides by low trees and shrubs, is in an exposed position on the top of a hill; the water, which dries out in late summer, normally is around 2-4 feet deep, and in hot weather is noticeably warm to the touch, which may help to explain the success of this apparently unique colony.

Two possible reasons have been advanced for the failure of other introductions of Tree Frogs in Britain; firstly, some are believed to have been made with the stripeless Tree Frog (*H. meridionalis*) from southern Europe and North Africa, to which our climate would clearly be inimical; secondly, many of the introductions have apparently been predominantly of males; Tree Frogs are usually collected at their breeding ponds, where the males remain for most of the breeding season, whereas the females only appear to deposit their eggs, and then depart. Thus for much of the year the population of a pond is largely male.

In 1967 a number of African Clawed Toads (*Xenopus laevis*) were released by Mr Frank Boyce in some ponds on the cliffs at Brook near Freshwater on the Isle of Wight, where within a decade they had increased to between 40 and 50 individuals. The success of this

colony has presumably been due at least in part to the comparatively mild climate of the release site.

In 1878 or 1898 a quantity of Midwife Toads (*Alytes obstetricans*) were accidentally introduced to a nursery garden near Bedford, reputedly in a consignment of ferns and water-plants from southern France. In 1922 about a dozen were removed by Mr W. S. Brocklehurst to his private garden nearby; in 1950 another colony was discovered not far away, and a small population was found to have survived on the original nursery garden site. In 1933 a small colony of midwife toads was established in a private garden on the outskirts of York, and in 1947 5 adults and a dozen tadpoles were transferred by Mr Robert Brocklehurst from his father's garden in Bedford to his own near Worksop in Nottinghamshire. In 1954 Lord Chaplin introduced two egg-carrying males from the London Zoo to his garden near Totnes in Devon. Most, if not all, these colonies are believed to exist today.

At least one colony, with a population of several hundred, of the Alpine Newt (*Triturus alpestris*) has survived for many years in a Surrey garden. Other alien species which have occurred in the wild in Britain in the recent past, but so far as is known are not currently established, include the European Pond Tortoise or Terrapin (*Emys orbicularis*), the Tesselated or Dice Snake (*Natrix tessellatus*), the Southern or Italian Crested Newt (*T. cristatus carnifex*), the Yellow-Bellied Toad (*Bombina variegata*), the Fire-Bellied Toad (*B. hombina*), the Painted Frog (*Discoglossus pictus*), and the Green Lizard (*Lacerta viridis*); this last has been released in Wales and Ireland as well as in mainland England. It occurs on the Channel Islands autochthonously.

The author would welcome recent information on any of the species mentioned in this article, or indeed on any other reptiles and amphibians currently believed to be naturalized in Britain.

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