

It seems likely that the lizards referred to by White were either the indigenous Sand Lizard or the introduced Common Wall Lizard, with both of which the Green Lizard can be confused.

In 1899, 230 Green Lizards were released at St Lawrence on the Isle of Wight, where some survived until 1936. In 1905–10, others were freed at Frensham Hall, Haslemere, Surrey, near the site of Gilbert White's sightings. A hundred were liberated at Paignton in south Devon in 1937, some of which survived until 1946.

In May 1962, five adult males and four adult females were released in an old chalk quarry near Sittingbourne in Kent. Mating was observed later in the year but no young were seen, and the last adult was recorded in June 1963. Similarly, Green Lizards freed later in the same decade in Gloucestershire did not survive for long.

[Wales]

In 1872, Green Lizards were turned loose in the Ynysneuadd Woods, Ebbw Vale, Monmouthshire, and at Portmerion, Merionethshire, where 20 more were planted in 1931, at least some of which survived until 1935.

[Ireland]

On the Burren in Co. Clare, where eight males and seven females were released in 1958, some were still there four years later.

Prospects

Even in southern England, the Green Lizard is north of its most northerly natural range in continental Europe, although in some places there have been indications of successful reproduction and sightings have persisted for over a decade. The Green Lizard is another species that could well benefit from climate change brought about by global warming.

References

Beebee & Griffiths 2000; D'Arcy & Haywood 1992; Fitter 1959; Lever 1977, 1980b, 2003; Walters 1981.

LACERTIDAE (LACERTID LIZARDS)

COMMON WALL LIZARD *Podarcis muralis*

WESTERN GREEN LIZARD *Lacerta bilineata*

Natural Distribution *P. muralis*: much of Europe between about 40°N and 50°N E to Romania. Also islands off the Atlantic coast of Spain and France (including Jersey in the Channel Islands) and in the Ligurian Sea (between Corsica and N Italy). Also NW Asia Minor. *L. bilineata*: Italy, France and N Spain.

Naturalized Distribution England.

England

Langham (2008), from whom the following account is derived, has surveyed and described in detail the history and status of Common Wall Lizard colonies in England.

Avon (Bristol) This colony, which was discovered in 2006, is based in the Royal Fort

gardens in the city centre. Its origin is uncertain, but could have been the department of zoology at the university. The form present is the brown-backed one that is normally associated with western France.

Berkshire (East Burnham Common, Beaconsfield) The site is a public recreation park. There have been only three records from this site, the last of which was in 1965. The



COMMON WALL LIZARD MALE



WESTERN GREEN LIZARD MALE

animals are believed to have been released from a pet shop in Slough. The unsuitable habitat consists of open common land with mixed woodland.

Devon (Blackawton, near Totnes) In 1954, Viscount Chaplin released a number of reptile species in his walled garden at Wadstray House. Of these only 15 lizards (probably subspecies *P. m. nigriventris* or possibly *P. m. brueggemanni*) survived, and by the 1970s the population had increased to several hundred. After Lord Chaplin's death in the 1980s, the garden fell into disrepair, and the colony is believed to have died out around 1990.

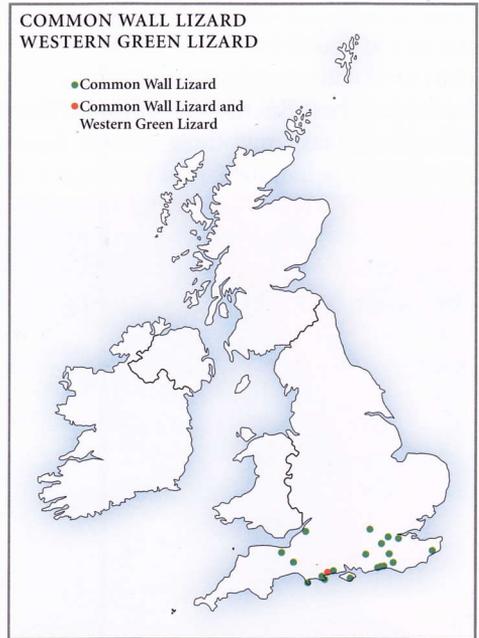
Devon (Paignton) In 1937, the founder of Paignton Zoo, Herbert Whitley, released 200 Common Wall Lizards from France in Primley Park and the adjacent Clennon Valley Park in Paignton. Although most of these animals had disappeared within a decade, a few survived until at least 1951. Occasional sightings were reported until the 1960s, but there have been none since 1970.

Dorset (Boscombe, Bournemouth) This colony is believed to have been established in 1992, when 50–60 were deliberately released. (There may have been an earlier and less successful release of brown-backed individuals from France.) Some brown-backed animals survive in the current population, though they could be natural morphs developed through natural selection. The native plant communities of extensive areas of the steep Boscombe sandstone cliffs are being replaced by alien species and scrub. The relative population estimate¹ for this colony is 1,328. In 2002, some Western Green Lizards were deliberately and illegally released on this site, where they are established and breeding (Steve Langham, personal communication 2008).

Dorset (Canford Cliffs, Bournemouth) This colony originated in 1992, when 50–60 (probably Italian) hatchlings were released at the Zig-Zag near Flaghead Chine, and has since spread along the cliffs as far as the car park at Bransome Dean Chine. The habitat is the same as at Boscombe. The relative population estimate is 3,699.

Dorset (Cheyne Weare, Fortuneswell) This colony, in Duncroft Quarry on the Portland peninsula, was discovered in 1995. It originated from captive-bred stock, believed to be descended from wild-caught animals in Brittany in north-western France, which was deliberately released, and is entirely of the brown-backed form. The quarry consists of sparse vegetation, brambles and vines, with plenty of open places for basking – but a relative shortage of egg-laying sites on the quarry floor. The relative population estimate is 329.

Dorset (Corfe Castle) Although this colony was only discovered in 2006, it may have been established through deliberately released captive-bred stock some years previously. At present, the lizards are confined to the east of the walls of the outer gatehouse, but in view of the optimum habitat available expansion seems likely. The animals are all of the green-backed Italian form.



Dorset (Dancing Ledge, Swanage) This colony is believed to consist of the green-backed form (as at the two other Purbeck coastal locations) and to have originated in the early 1990s from deliberately released captive-bred stock. The habitat is sea-cliffs, quarry face with rocky outcrops and associated vegetation.

Dorset (Durleston, Swanage) Only three individuals, all males, were recorded in 1999–2001. The habitat is coastal cliffs and the site of the old castle.

Dorset (Longstone Ope, Fortuneswell) Almost adjacent to the colony at Cheyne Weare on the Portland peninsula, this colony of the brown-backed form originates from a deliberate release, probably in the early 1990s, of captive-bred stock probably descended from animals caught in the wild in Brittany in north-western France. Longstone Ope is a dis-used quarry within the coastal cliffs, in the south-east of the Portland peninsula. The colony is situated both within the quarry and on the cliffs. The habitat is the same as at Cheyne Weare. The relative population estimate is 477.

Dorset (West Weare, Fortuneswell) This colony is believed to have started in the 1990s in Tout Quarry, from where it was subsequently relocated to the sea-cliffs. Although a survey in 2007 failed to find any lizards, the colony is believed to survive and to consist of the green-backed form. The site is composed of boulder-strewn high coastal cliffs fronting abandoned quarries.

Dorset (Winspit Quarry, Swanage) The date of origin of this colony is believed to be the mid- to late-1980s, with reinforcements until the early 2000s comprising deliberately released captive-bred stock of the green-backed form. The habitat is coastal cliffs and quarry face, with rocky outcrops and associated vegetation. Reports since 2007 of Common Wall Lizards at Worth Maltravers, more than a kilometre inland from Winspit Quarry, could indicate either an expansion of range or translocation by humans.

Hampshire (Farlington, Havant) Discovered only in 2007, this individual sighting remains unconfirmed.

Hampshire (Holmsley, New Milton) This colony originates from a small number of animals that escaped from a large outdoor vivarium in the summer of 1986 into a garden, where they first became established in a pile of logs and subsequently spread to neighbouring gardens. The animals are believed to be of the Italian green-backed form. The surrounding habitat is unsuitable coniferous open forest and heath.

Ventnor (Isle of Wight) This colony is probably the largest (in terms of population and area) and longest established population of Common Wall Lizards in Britain. Although it is claimed that the colony dates from a release by a Dr Martin in 1841 this cannot be confirmed, though it does correlate with a known unsuccessful introduction of Western Green Lizards at St Lawrence some 4 km to the west. It is believed that the introduction was made in the early 1920s – according to local legend from a ship, possibly Italian, that was wrecked on the coast and from which the animals, stowaways among the cargo, escaped. By the following decade they were apparently well established on walls along Esplanade Road. They later occupied a mixture of coastal cliffs, heavily scrubbed residential gardens and walls, and landscaped terraced walls along the cliffs. Recently their range has been deliberately expanded by human translocations to the Ventnor Botanic Gardens, and there have been reports of sightings from as far east as Wheeler's Bay. It seems probable that this colony will remain restricted with the town of Ventnor and its immediate environs. The relative population estimate is 12,876.

Kent (Folkestone) This colony, believed to be descended from surplus stock of the green-backed Italian form dumped by the pet trade, originates from about 2004 or possibly earlier. The site is heavily scrubbed and grassy sea-cliffs.

Kent (Tyler Hill, Canterbury) This colony situated in a demolished residential garden has died out.

Greater London (Birdbrook, Mottingham) An escape in 1972 of half-a-dozen animals from an outdoor vivarium formed the founder stock of this colony, which was reinforced by a further dozen or more escapees some five years later. All were of the green-backed form, probably of Italian origin, and had been acquired from the local Well Hall pet shop. These animals became established on land adjacent to the Rochester Way trunk road, and at their peak are believed to have numbered over 1,000 individuals. Subsequently the land was developed into a housing estate, resulting in the deaths of large numbers of the animals and the displacement of the survivors to sub-optimal habitats. Predation by domestic cats on the new housing estate doubtless played a part in reducing the population still further. The colony managed to survive, however, and currently numbers perhaps 100 individuals. The present distribution includes an old Ministry of Defence depot at Kidbrooke (now part of the National Maritime Museum) and the small Birdbrook Nature Reserve, managed by the London Wildlife Trust. The habitat of Birdbrook comprises medium-height scrub, four ponds, Bramble thickets and a few courses of brick from a demolished house, and elsewhere partly buried and overgrown foundations and some grass-covered banks of rubble with disused storage buildings. The site backs onto a row of private gardens, which are so far uncolonized. The relative population estimate is 76.

Greater London (Hampton, Brentford) This colony became established around 1954 on two railway bridges, an associated embankment and nearby private gardens. The animals are of the Italian green-backed form, either *nigriventris* or *brueggemanni*. Although the lizards are thought to have died out since 1979 and a survey in 2007 failed to find any, it is possible that a small nucleus may have relocated locally.

Oxfordshire (Burford) This colony used to live on an old drystone wall and ha-ha in the African enclosure of the Cotswold Wildlife Park. The eastern end of the ha-ha was covered with ivy, where the lizards were most frequently to be seen basking. The colony is believed to have died out in about 1999 following pointing of the wall, which removed the interstices required by the lizards for breeding and shelter.

Shropshire (Ludlow) In about 1985, captive-bred Common Wall Lizards of the Italian green-backed form were deliberately released in a disused quarry near Overton. Even at its peak in the 1990s, the population is believed never to have reached 100 individuals, and only a small number were recorded in 1999. Possibly due to extensive clearance of the vegetation on the site by the Forestry Commission in late 2004, this colony is believed to have died out shortly thereafter – a survey in April 2007 failed to find any, despite good conditions and an ideal time of year.

Somerset (Stogumber, Williton) In about 1981, some 10 adults, believed to be of the brown-backed French form, were translocated from the colony at Wellington and released on a sandstone ridge on the top of a south-facing valley in an orchard and honey farm at Stogumber. Individuals were later seen in private gardens and on walls in the hamlet a few hundred metres down the valley.

Somerset (Wellington) In about 1981, some 10 animals (from Machecoul south-west of Nantes in western France) escaped from a vivarium near the bypass and became established on a nearby 2.4 m-high old flint boundary wall and in some adjacent greenhouses.

Surrey (Banstead, Belmont) In 2007, a colony was discovered in private gardens and walls, and in glasshouses in two neighbouring garden centres. Since neither centre nor any local private garden owners have kept or sold reptiles, it is assumed that the animals were stowaways in importations from abroad of ornamental or exotic plants.

Surrey (Farnham Castle) In May 1932 – the earliest recorded introduction of Common Wall Lizards to Britain – a dozen of the brown-backed nominate form, acquired from a London dealer who is believed to have imported them from France, were released in a walled garden at Farnham Castle; in the following year a further pair, presumably from the same source, was added. Little more was heard of these animals until Smith (1951b) announced the ‘rediscovery’ of the colony on some old brick and stone walls on a nearby private estate. It is believed that these animals died out shortly after 1989 – the year of the last confirmed sighting, although unconfirmed reports continued until 2000.

Surrey (Newdigate, Crawley) Fitter (1959) reported that a small colony of Common Wall Lizards was established in T.B. Rothwell’s Beam Brook Aquatic Nursery at Newdigate, though whether in captivity or the wild is unrecorded. Although the population that had since become established in the wild survived until 1989, a survey in 2007 failed to find any individuals. The site was a mixture of grassy glades in woodland with numerous (artificial) ponds. There were no suitable walls for shelter or egg-deposition.

Surrey (Nutfield, Bletchingley) Between 1980 and about 1985, some Common Wall Lizards escaped from the premises of Xenopus Ltd, at Nutfield, a firm that reared reptiles and amphibians for the pet trade, educational use in schools and scientific research. The original stock was imported from Barilli & Biagi of Bologna, Italy, and was of the green-backed form. The escaped lizards became established in a nearby private garden, where they use wooden decking for basking. Xenopus Ltd ceased trading in 1989.

Sussex (Haywards Heath) In 2007, a ‘small and fragile’ colony was discovered at an undisclosed site at Haywards Heath. The origin may have been the population at Shoreham-by-Sea.

Sussex (Lancing, Worthing) This new colony, in a private garden backing onto a railway line, was also found in 2007. A subsequent discovery at West Worthing station lends credence to the hypothesis that the former stock also came from the Shoreham-by-Sea colony, and used the railway line as a habitat corridor.

Sussex (Shoreham-by-Sea) This colony, of both green and brown forms of Italian stock, originated in the garden of the late Professor Geoff Haslewood, who in 1975 released 25 Common Wall Lizards, followed a year later by a further 7. Since then the colony has expanded its range some 500 m along the beach as far as the Old Fort. This population could be the source of recently discovered colonies at Haywards Heath, Lancing and West Worthing. The site is a south-facing shingle beach backed by residential properties and their gardens. Although the lizards make use of most of the shingle area, the main concentrations occur on the occasional garden waste dumps and concrete remnants of coastal defences, and especially on the boundary between the gardens and the beach. The relative population estimate is 513.

Sussex (West Worthing) This colony was first reported in 2004, and has become established in the railway station, mainly in cracks in platforms and curbing, and in fenced-off areas. The source of the colony, which is of the green-backed form and probably of Italian origin, may be the population at Shoreham-by-Sea that used the railway lines as a corridor for expansion or travelled as stowaways on rolling stock; another possibility is that it is a deliberate human introduction. The relative population estimate is 17.

Prospects

The habitat and climatic requirements of the Common Wall Lizard are crucial to its survival. In England, and indeed throughout its natural range, it is in general a species of artificial disturbed habitats containing some form of vertical element, such as a wall,

quarry or house with a southerly aspect for basking with, or at least near, some form of cover for protection.

The Common Wall Lizard, even in southern England at around 51°N, is north of its most northerly natural range in continental Europe, and is thus yet another species that may well take advantage of the milder climate likely to result from global warming.

Impact

Mole (2008) found that the range covered by Common Wall Lizards and Western Green Lizards on Canford Cliffs in Dorset showed that the two alien species dominated the central area, with the native Viviparous Lizard found in large numbers only on the periphery. In 2002–7, the population of Common Wall Lizards increased by some 40 per cent and that of Western Green Lizards by 36 per cent; during the same period the population of the native species declined by 75 per cent. The structure of the vegetation rather than the species was the principal factor in the lizards' distribution, and it thus seems possible for both alien species to spread unhindered along the cliffs. Where the Common Wall Lizard occurs sympatrically with the rare Sand Lizard, anecdotal evidence suggests that the alien species outcompetes the native. On the Canford Cliffs in Dorset, the population of the latter has declined dramatically since the arrival of the former, and although there is no proven causal link it must be a factor for consideration.

References

Frazer 1949, 1964; Langham 2008; Lever 1977, 1980a, 1980b, 2003; Mole 2007; Quayle & Noble 2000; Sinel 1905, 1908; Smith 1951a, 1951b; Snell 1981; Spellerberg 1975; Taylor 1948, 1963; www.surrey-arg.org.uk

Note

1. The relative population estimate is the estimated number of individuals present in the colony. Although the actual figure (which is likely to be on the low side) may not be accurate, by using the same method of calculation for each colony it should vary correctly when compared to another colony (Steve Langham, personal communication 2008).

COLUBRIDAE (NATRICINE COLUBRIDS)

AESCULAPIAN SNAKE *Zamensis longissimus*

Natural Distribution From C France, S Switzerland, S Austria, the Czech Republic, S Poland and the neighbouring former USSR, S to NE Spain, Sicily, W Sardinia and S Greece. Also from Turkey to N Iran. (This disjunct distribution is probably a remnant of an originally much wider range.)

Naturalized Distribution England; Wales.

England

Since the late 1980s, a thriving population of Aesculapian¹ Snakes has been established along both banks of the Regent's Canal in the grounds of the Zoological Society of London in Regent's Park. The founder stock of this population was said to have been released by the London Education Authority, which was at the time renting space in one of the society's buildings.