

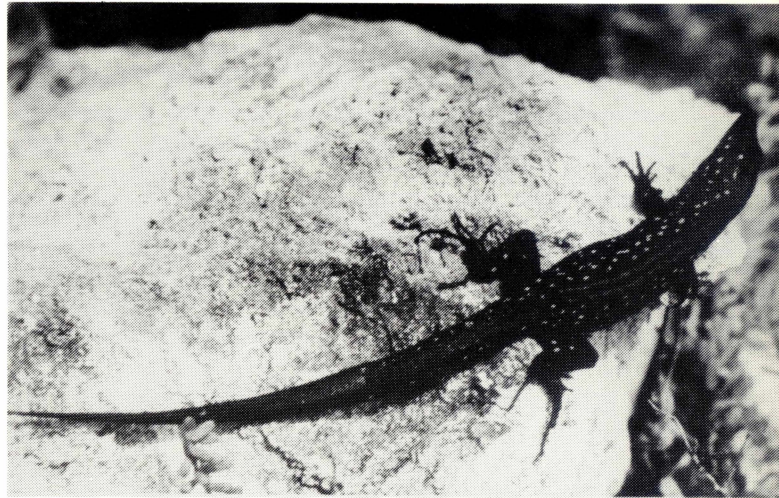
THE MALTESE WALL LIZARD

The Republic of Malta has a national plant (the Maltese Centaury – ‘Widnet il-Baħar’) and a national bird (the Blue Rock-thrush – ‘il-Merill’). If we were to choose another national animal, the Maltese Wall Lizard (‘Gremxula ta’ Malta’) would be a strong contender for the post. This is not only because this lizard is a common, colourful and conspicuous member of our fauna, but also because it is unique to our Islands and found nowhere else in the world.

The wall lizard of Malta was originally thought to be a variety of the Common Wall Lizard (*Podarcis muralis*) of mainland Europe. For example, the naturalist Andrew Leith Adams writing in 1870 reported “the common lizard (*Podarcis muralis*)” as occurring on the Islands. In 1876, Dr. J. Bedriaga named this Maltese variety *filfolensis* since the animals he studied came from the islet of Filfla. Later studies, however, showed that the lizards of the Maltese Islands were actually quite different from the Common Wall Lizard or any other species in the region and therefore Bedriaga’s *filfolensis* became established as a distinct species whose full modern name is *Podarcis filfolensis* – the Maltese Wall Lizard.

The Maltese Wall Lizard is endemic to the Maltese Islands and the Pelagian Islands of Linosa and Lampione which, although politically belonging to Italy, are faunistically part of the Maltese Archipelago. A feature of wall lizards in general is that they tend to be highly variable in colour and markings, especially in species in which the various populations are cut off from each other and are therefore reproductively isolated. This is particularly evident in the case of those species which occur on archipelagos, where very often each island has its own race with its own distinct colour pattern. The Maltese Wall Lizard is no exception and specimens from the various islands of the Maltese Archipelago may be so different that it is difficult to believe that they all belong to the same species. These reproductively isolated populations are called geographical races or subspecies and are given separate names.

The lizards of Filfla tend to be large (25–28 cm including tail) and predominantly black with small bluish or greenish spots, or else brown with heavy dark markings. These differ considerably from the lizards on Malta, Gozo and Comino which are smaller (17–20 cm) and much lighter in colour having a grey, brown or green ground colour with darker markings on the back and sides, especially in



A male of the Filfla race of the Maltese Wall Lizard. This race is known scientifically as *Podarcis filfolensis filfolensis* and is found only on the island of Filfla off the south coast of Malta.

(Photo Credit: A.E. Baldacchino)

the males. Being the one named first, the Filfla race is called the nominal subspecies and is known scientifically as *Podarcis filfolensis filfolensis*. The race found on Malta, Gozo and Comino was named *Podarcis filfolensis maltensis* by Robert Mertens in 1921. In his original description of *Podarcis filfolensis*, Bedriaga mentioned that the lizards found on St Paul’s Islands, off Selmun, tended to be different from the mainland populations in having the underparts spotted with black, especially in the neck region. In 1913, the Maltese naturalist Giuseppe Despott confirmed this but he did not propose a name for the St Paul’s Islands race. In 1924 Baron G.J. De Fejérváry named it *Podarcis filfolensis kieselbachi* in honour of Dr Julius Kieselbach. In 1914 another Maltese naturalist, Giovanni Gulia, discovered a population of lizards on General’s (or Fungus) Rock, off Dwejra, Gozo, which, although similar to the St Paul’s Islands race, differed in having larger spots on the underside. Gulia called this race *generalensis*. To complete the picture it must be mentioned that the race of Maltese Wall Lizard which inhabits the islands of Linosa and Lampione is different still from any of the races found in the Maltese Islands and has been named *laurentiimuelleri* by Baron Fejérváry. Whether one considers the various races sufficiently distinct to warrant separate names or not is a matter of opinion, but certainly these names are useful labels to distinguish the different populations and also have historical value so perhaps they should be retained, at least until the

various races have been sufficiently studied to decide one way or another.

Various folk beliefs have arisen about the lizards of Filfla. The most widespread seems to be that these lizards are a special sort with two tails. This is an abnormal condition which results from incomplete separation of the tail from the body after injury, following which the newly regenerated tail fuses with the old one. This may occur in lizards the world over and is not limited to those on Filfla. Both Guido Lanfranco and Charles Savona Ventura, who have made a study of Maltese reptiles, are of the opinion that two-tailed lizards may have been more common on Filfla than elsewhere in the Maltese Islands because at one time the islet was used by the military for target practice hence giving more opportunity for injuries to occur which in turn may give rise to the two-tailed condition.

The Maltese Wall Lizard is common all over the Islands but particularly in dry habitats where the animals live in crevices in rocks and walls. The lizards are most active during the warmer months of the year. The Wall Lizard is active during the day, spending its time alternately basking in the sun and feeding. Its food consists of small invertebrates such as insects, spiders and snails but small freshly-hatched lizards are also sometimes taken. The lizards start breeding in spring. The males are territorial and defend their territory against other males, usually by assuming characteristic threat postures in which the head is tilted down and the throat pushed out to display the brightly coloured underparts. If this fails to intimidate intruders actual fights may result. Males in breeding dress have the undersurface of the throat coloured a bright yellow or orange and in some parts of the Islands are called "dorbi". Males also court females and the author has observed a St Paul's Island male lizard apparently courting a female by gently nipping her on the tail. Eggs are laid

St. Paul's Islands off Selmun, Malta harbour a distinct race of the Maltese Wall Lizard called *Podarcis filfolensis kieselbachi*

(Photo Credit: P.J. Schembri)

towards the middle of April and hatch some 10–12 weeks later; during July and August large numbers of hatchlings are evident.

The Maltese Wall Lizard and its various races are of great scientific interest since they throw light on one process of speciation (the formation of new species) – speciation through geographical isolation – as well as on the origins of the Maltese fauna. Recently Italian workers have investigated the relationship of the Maltese Wall Lizard with other Mediterranean species using modern biochemical techniques. The Maltese Wall Lizard is most closely related to the Sicilian Wall Lizard (*Podarcis wagleriana*) which is endemic to Sicily. Professor Benedetto Lanza of the University of Firenze hypothesizes that the Maltese and Sicilian Wall Lizards originated from a common ancestor which inhabited Sicily and the Maltese Islands when these were joined together in Pliocene times (about 7 million years ago). When the Maltese Islands finally became separated from Sicily at the end of the Würm glacial stage (about 250,000 years ago), the lizard populations became reproductively isolated and evolved into closely related but distinct species. In turn the Maltese Wall Lizard is itself speciating and the various populations isolated on the different islands of the Maltese Archipelago are actually species in the making.

Finally, a word about conservation. Although becoming less abundant due to habitat destruction, the Maltese Wall Lizard of Malta, Gozo and Comino is still a common animal. The other races however are in a precarious position since each only numbers a few hundred animals in an area of less than two hectares. One accident, natural or man-made, could easily wipe out the entire lizard population of any of the smaller islets and a unique part of our national heritage would be irretrievably lost. We must be very careful that the blame for this is not laid at our door!

Patrick J. Schembri

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A male (lower) and female (upper) Maltese Wall Lizard from Gozo (*Podarcis filfolensis maltensis*). Male wall lizards tend to be more brightly coloured than females.

(Photo Credit: P.J. Schembri)

A male of St. Paul's Island lizard displaying the brightly coloured neck region

(Photo Credit: P.J. Schembri)

