

Podarcis raffonei (MERTENS, 1952)

Aeolian Wall Lizard · (Italian name: lucertola delle Eolie)

Medium-sized lizard, head relatively flat, males often with dorsal stripe formed by a series of spots (this stripe can be more or less marked). Dorsal scales blunt and keeled. Throat with dark spots. Dorsal coloration brownish or brown-greenish, in some populations very dark, often with light brown reticulation or with slight dorsal-lateral stripes. Ventral part pearl-grey to light bluish, or brick red to reddish. Some populations show bright blue spots on the flanks. Total length in adult males 23–24 cm (26 cm or even more in the population of Strombolicchio), SVL up to 7.5 cm (8.5 cm, Strombolicchio population). Females are generally smaller. The population of the islets tend to be melanistic and therefore easily distinguishable from *P. sicula*. Vulcano is the only island where both species are found but *P. raffonei* is less melanistic than the other conspecific populations; it cannot be mistaken with *P. sicula* because of spots on the throat and darker dorsal coloration.

Distribution, zoogeography and taxonomy: Aeolian Archipelago: Vulcano Island (only on Vulcanello Peninsula and in some localities of the western coast), Strombolicchio, Scoglio Faraglione and La Canna Islets.

Distributed exclusively in coastal habitats. Strombolicchio and La Canna (max. elevation 49 m and 70 m respectively) are characterized by scarcely covered steep slopes. In particular, La Canna (1550 m²) is the smallest known islet on which *P. raffonei* occurs. Scoglio Faraglione Islet (35 m elevation) is occupied by relatively dense vegetation characterized by *Senecio bicolor* and *Helichrysum litoreum*. On Vulcano Island the species is seen in an area of about 1 km² and up to 100 m elevation; the vegetation is characterized by a garigue mixed with a low maquis of *Cistus eriocephalus* and *Erica arborea*. On Vulcanello Peninsula, densely populated and reforested with *Pinus* sp. pl., *Eucalyptus* sp. pl. and *Acacia cyanophylla*, *P. raffonei* is very rare.



From a biogeographical point of view, the hypothesized age of this endemism (CAPULA, 1994a; CAPULA et al., 2001) strongly contrasts with the relatively recent age



Fig. 67: *Podarcis raffonei*, ♂, from Strombolicchio Islet.

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of the Aeolian Archipelago. The oldest island of this archipelago (Filicudi) seem to have emerged only 1 mybp. CAPULA (1994a) date back the divergence of *P. raffonei* from the most similar congeners at 2–8 mybp, therefore earlier than the formation of Aeolian volcanic arc (CALANCHI et al., 1996). It is possible that this dating procedure do not take into account the possible acceleration of evolutive processes that can occur on islands and in particular on those characterized by high volcanic activity.

Formerly described as subspecies of *P. sicula* and *P. wagleriana*, the above-mentioned populations raised the specific status on the basis of biochemical studies by CAPULA (1994a). Even if a relatively high degree of genetic affinity has been found among these populations, they have been distinguished as follows ssp. *antoninoi* (MERTENS, 1955) of Vulcano Island; ssp. *alvearioi* (MERTENS, 1955) of Scoglio Faraglione Islet; *cucchiarai* DI PALMA (1980) of La Canna Rock; the nominal subspecies of Strombolicchio Islet.

Biology and ecology: Knowledge is scarce on the biology and ecology of the Aeolian Wall Lizard.



Fig. 68: *Podarcis raffonei*, ♂, from Strombolicchio Islet.

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The feeding ecology of two different populations (Strombolicchio and Scoglio Faraglione Islets) has been studied by LO CASCIO et al. (2001). The diet in the two populations is very similar and no significant seasonal difference have been found. Coleoptera (mainly Tenebrionidae and Curculionidae) and Hymenoptera (mainly Formicidae) constitute the main prey categories. Vegetable matter is present only in relatively small percentage. The species shows a typical insectivorous diet and seems to be an opportunistic forager.

On La Canna Islet, where *P. raffonei* lives undisturbed together with a colony of Eleanor's Falcon (*Falco eleonorae*), some individuals have been observed feeding on the scarce remains of the bird pellets (LO CASCIO, 2000).

PÉREZ-MELLADO et al. (1997), studying the tail autotomy in the Aeolian Wall Lizard, observed that *P. raffonei* maintain this capacity even if on micro-insular Mediterranean environments this defense mechanism is normally reduced or even absent where predators are lacking. This fact could be related to the relatively recent isolation of these populations.