

Podarcis melisellensis (BRAUN, 1877)

Dalmatian Wall Lizard · (Italian name: lucertola adriatica)

Relatively small and squat lizard. Head is short and deep, the supraciliary stripes, not present in the *concolor* individuals, are marked and extend from the temporal region to the eye. Dorsal coloration light brownish or green with variable pattern. Males often show brown temporal bands with black reticulation lacking in females. A dark vertebral stripe is present, at least in the posterior part, and dorsolateral light stripes. Ventral part from brilliant white to orange or reddish, sometimes some spots are present on the throat and on the external ventral scales. Total length in males up to 20 cm, SVL about 6.5 cm. Females in general are smaller. The Adriatic micro-insular populations are highly variable in coloration and size, as the lizards of Brusnik Islet (*terra typica* of the species), that show an intense melanism and brilliant blue spots on the flanks. In some cases *Podarcis melisellensis* is not easy distinguishable from *P. sicula*. In Italy *P. melisellensis* is generally smaller than *P. sicula* and the ventral coloration is more brilliant and varies from white to reddish. More difficult is the identification among juveniles of both species.

Distribution, zoogeography and taxonomy: Northeastern Italy (Trieste and Gorizia Karstic areas), southwestern Slovenia, Istria and Dalmatia, western Bosnia-Herzegovina, southern Crna Gora and northwest Albania. ARNOLD (1987) observed that almost all populations are distributed within 160 km off the Adriatic coast. *P. melisellensis* is also found on 150 islands and islets of the eastern Adriatic Sea.

The Dalmatian Wall Lizard is frequently found in xeric habitats, as degraded Mediterranean maquis, meadows close to xeric woodland, slopes and rocks. In general this species is never found above 1000–1300 m; while on the Mount Biokovo (central Dalmatia), where *P. melisellensis* is the most common lacertid, it can be found up to 1600 m (SCHMIDTLER, 1999). On Krk Island, *P. melisellensis* seem to be more thermophilous and preferring more xeric habitats than *P. sicula* (SCHIMMENTI & FABRIS, 2000). In the Lake Skadar area (Montenegro) the lizard is mainly encountered in covered areas (BEJAKOVIC et al., 1996). In northeastern Italy this species is rupicole (LAPINI et al., 1998).

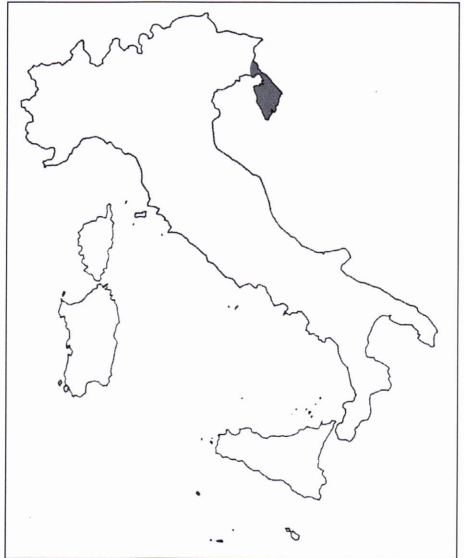




Fig. 58: *Podarcis melisellensis*, Val Rosandra, Trieste.

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Fig. 59: *Podarcis melisellensis*, Cres Island, Croatia.

C. CORTI

HARRIS & ARNOLD (1999) refer *P. melisellensis* to a species group indicated as “Balkan group”, that includes mainly species with micro-insular distribution (together with *P. gaigae*, *P. milensis* and *P. taurica*).

The Italian populations are referred to the ssp. *fumana* (WERNER, 1891), that include the continental and some Dalmatian island populations. About 20 insular sub-

species have been described based on morphological and chromatic characters. Recent molecular analysis of some populations (PODARN, 2001) revealed three main groups: the “*fiumana*” cluster, that includes the continental and the insular subspecies *kornatica* (RADOVANOVIC, 1959), *curzolenis* (TADDEI, 1950), *gigantea* (RADOVANOVIC, 1956) and *traguriana* (RADOVANOVIC, 1959); the “*melisellensis*” cluster with the insular subspecies *melisellensis* (BRAUN, 1877), *galvagnii* (WERNER, 1908), *lissana* (WERNER, 1891), *pomoensis* (Wettstein, 1926), *gigas* (Wettstein, 1926) and *kammereri* (Wettstein, 1926); and a distinct lineage from the Lastovo Island, previously assigned to the ssp. *lissana*, should be referred to a new subspecific taxon.

Biology and ecology: RADOVANOVIC (1956; 1959) observed the consumption of the following prey: Diplopoda, Coleoptera, Gastropoda, spiders, Formicidae, Homoptera, Orthoptera and Diptera. This author also reports a case of cannibalism, also observed by KAMMERER (1925). Commensalisms between *P. melisellensis* and nesting gulls has been observed on some islets. The Dalmatian Wall Lizard feeds on the remnants of the prey of birds and on their parasites (KAMMERER, 1925). TIEDEMANN & HENLE (1986) also report the consumption of fruits of *Capparis rupestris*. The diet of a population of Vis Island (Croatia) seem to be mainly based on Formicidae, followed by other Hymenoptera, Coleoptera, Homoptera and various larvae (GRBAC et al., 1998a); while the diet of a population of Cres Island (Croatia) is mainly based on Coleoptera, Araneae, Opiliones and Diptera (GRBAC et al., 1998b).

Population density has been studied on Cres Island, the transects in pasture habitats show 27–40 individuals/ha, while only 6–7 ind/ha in a karstic habitat; the observed difference seem to be related to most favorable micro-climatic conditions, hiding places and prey availability (SEHNAL, 1999). In a locality of Slovenian Istria, where *P. melisellensis*, *P. muralis* and *P. sicula* are syntopic, the latter seem to be more abundant than the Dalmatian Wall Lizard, while the lowest density is shown by *P. muralis* (VOGRIN, 1998). In micro-insular habitats competition between *P. sicula* and *P. melisellensis* has been documented, the Dalmatian Wall Lizard seem to be excluded by the Italian Wall Lizard (NEVO et al., 1972; GORMAN et al., 1975).

Observed around an old fortress of Vis Island (Croatia), where *P. melisellensis* and *Archaeolacerta oxycephala* are syntopic, the Dalmatian Wall Lizards occurs primarily on the ground, while the *A. oxycephala* is almost exclusively seen on the walls of the stronghold. The same has been observed for a cultivated area of the same island, where *P. melisellensis* occurs on the ground while *A. oxycephala* on stone walls (C. CORTI, pers. obs, 1997). VAN DAMME (2001) suggests that this difference could be related with thermal biology of these species. *P. melisellensis* seem to possess a certain independence from micro-habitat temperature (GRBAC et al., 1998a), as well as observed by GRBAC & BAUWENS (2001) that indicate active thermoregulation.

Mating takes place in spring and 3–5 eggs are laid starting in May.