

Archaeolacerta horvathi (MÉHELÿ, 1904)

Horvath's Rock Lizard · (Italian name: lucertola di Horvath)

Relatively small and flattened lizard, head short. Iris pale beige. Dorsal scales flattened and not keeled. Dorsal coloration brownish, grey-whitish or green-greyish, darker on the flanks, often with a light irregular edge that dorsally starts from the post-ocular region. Ventral parts are light yellowish, throat is white and without dark spots. Juveniles can display a bright blue-green tail. Total length in adult males up to 19,5 cm, SVL 6 cm. Females are normally smaller.

A. horvathi is very similar to the sometimes strictly syntopic *P. muralis*, and easily get mistaken with *P. muralis*. The latter shows dark spots on the throat and ventral parts of males sometimes are reddish (at least in the localities in which the species are sympatric). *Archaeolacerta horvathi* is characterized by having contact between the rostral and front-nasal scale, a character not displayed by any other lizard of northeastern Italy.

Distribution, zoogeography and taxonomy: Northeastern Italy (Carnic and Julian Alps), southwest Austria (some localities of the Carnic Alps and Karawanken), western Slovenia (Julian Alps), western Croatia (Mount Ucka; Risnjak, Velebit, Kapela, Kranjska Gora, Sneznik mount, southward probably Šibenik); recently CAPULA & LUISELLI (1990) found a disjoint locality in the Bavarian Alps (southeastern Germany), LAPINI & DAL FARRA (1994) quote the species also for Belluno Dolomites (Venetia).

The Horvath's lizard is an endemic species of the eastern Alps and the northern Dyanric region. The actual distribution could be related to palaeoclimatic events that recently characterized the history of these regions, although only a deeper knowledge regarding its distribution could clear its biogeography (cf. DE LUCA, 1989; CAPULA & LUISELLI, 1990; TIEDEMANN, 1997). DARSA (1972) recorded this monotypic species for the first time, but its presence in Italy was hypothesized by SOCHUREK (1955).

Stenoecious species, generally seen on altitudes about 600 and 1200 m, in wet mountain habitats, but even found at 2000 m (Mount Ponza, environs of Fusine).



Most frequently found on sunexposed rocky sites (ARNOLD 1987), but this species also colonize cement walls by the side of roads (pers. obs R. SINDACO and A. dall'Asta in a population studied by J. RICHARD). On Mount Ucka the lizard is mainly found between 1100–1300 m at the edge of coniferous formations. Also in the Saca Valley and in Plitvice the lizard is found at the edge of deciduous forests. In northeastern Italy *A. horvathi* is mainly found in montane rocky habitats, characterized by *Fagus sylvatica*, *Abies alba*, *Picea abies*, *Larix decidua*, *Pinus nigra*, between 800 and 1200 m. The 30 % of the Italian populations are found at higher elevation (up to 2000 m) (LAPINI et al., 1993). The lower site where the species is found in Italy (480 m, Bocche di Pradolino) is a thickly forested deep gorge.

Biology and ecology: LAPINI et al. (1993) found *A. horvathi* sympatric with *Podarcis muralis*, in the beech-forest of the Uccia Valley (Friuli) at 700–800 m. The ratio between the Horvath's Lizard and *P. muralis* is about 4:1.

The feeding ecology of this species has been studied by RICHARD & LAPINI (1993), spiders seem to be the main prey (21.8 %), followed by Hymenoptera (15.6 %) and Homoptera (13.5 %), Opiliones and Coleoptera (8.3 % each), Orthoptera (7.2 %), Lepidoptera (6.2 %), Chilopoda (5.2 %), Diptera (4.1 %) and few other groups; in this habitat the diet of *A. horvathi* seem to be less various than in *P. muralis*. CAPIZZI (1999) observed that the diet does not differ between juveniles and adults. A population of the Tarvisio Forest (Carnic Alps) mainly preys on Opiliones (48.1 %), Araneae (26.4 %), Isopoda (7.5 %), Chilopoda (6.1 %) and Coleoptera (4.2 %), showing that this lizard is an active forager.

The Horvath's Lizard is active from March to November. In northern Croatia (Velebit) and in the Julian Alps (Kanin) DE LUCA et al. (1989) observed an uni-modal activity pattern in May and November (10.00 a.m.–4.00 p.m.), while a bi-modal activity in summer. During the diurnal pause (12.00 a.m.–2.00 p.m.) the lizards are probably still active but hidden in crevices or under stones. The average body temperature is about 29.5 °C; one of the lowest recorded among the European lizards. DE LUCA et al. (1989) hypothesized that this pattern could be related with eco-physiological adaptation to montane habitats. Pairing takes place between mid-May and the beginning of June. During July 3–5 eggs are laid, hatching takes place at end of August and the beginning of September; the reproductive rate of the species is considered relatively low (LAPINI et al., 1993).



Fig. 42: *Archaeolacerta horvathi*, Predil Pass, Slovenia.

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Fig. 43: *Archaeolacerta horvathi*, Julic Alps, Slovenia.

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Fig. 44 (top): *Archaeolacerta horvathi*,
Uccea, Udine. R. SINDACO

Fig. 45 (middle): *Archaeolacerta horvathi*,
Uccea, Udine. R. SINDACO

Fig. 46 (bottom): *Archaeolacerta horvathi*,
belly coloration, Julic Alps, Slovenia.

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