



EUROLIZARDS

Podarcis erhardii - Erhard's Wall Lizard



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A pair of the nominate subspecies: GR / Serifos, 18.04.2018

The Aegean with its numerous islands is one of Europe's most productive biodiversity labs - and Erhard's Wall Lizard is one of its masterpieces! This highly variable species has successfully populated wide parts of the southern Balkans and numerous Aegean Islands and developed a remarkable variability. In the early 20th century, ambitious herpetologists have described about 20 subspecies - in particular for the Islands. However, most of them are questionable. So, an in-depth taxonomic review of this species is an unavoidable but challenging task for future research.

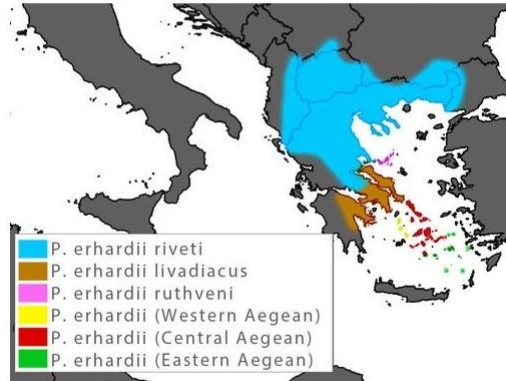
Currently, according to available genetic data, the different morphs may be clustered into the following preliminary groups*:

Mainland:

- *Podarcis erhardii riveti*: Bulgaria, Macedonia, Serbia, Kosovo, Northern Greece (possibly including subsp. *ruthveni* from Northern Sporades).
- *Podarcis erhardii livadiacus*: Attika, Evia and north-eastern Peloponnese.

Aegean Islands:

- *Western Aegean* - western Cyclades (Sifnos and Serifos and Kithnos).
- *Central Aegean* - numerous islands of the central Cyclades including Tinos, Mykonos, Naxos, Paros, Amorgos.
- *Eastern Aegean* - eastern Aegean Islands (Anafi, Astypalea and several uninhabited islets).



As some future species split seems likely, it is worth having a closer look at these groups, subsequently.

The distribution range of *Podarcis erhardii*

Podarcis erhardii riveti



Subsp. *riveti*, male: GR / Vikos, 10.06.2009 - Note the orange underside and the olive-grey back.

This subspecies shows an olive-greyish back colouration and has no dark vertebral line. The underside may be whitish, yellow or orange in males. It is found from sea level up to 1400 m (Mt. Ossa). The distribution area of *Podarcis erhardii riveti* covers the southern Balkans from southern Serbia to Central Greece. In its range, it overlaps with the following species:

- [Podarcis muralis](#): this species may look similar to *Podarcis erhardii riveti*. But *Podarcis muralis* frequently shows a dark vertebral line which lacks in *Podarcis erhardii riveti*. Where both species co-occur, *Podarcis muralis* occupies more humid micro-habitats.
- [Podarcis tauricus](#) and [Podarcis ionicus](#) differ from *Podarcis erhardii riveti* by their green colouration and the unspotted labials.

Subsp. *ruthveni* from Northern Sporades looks similar.

Podarcis erhardii livadiacus



Subsp. *livadiacus*, male: GR / Evia, 01.06.2012 - Note the bronze-coloured back and the prominent blue outer ventral scales

This beautiful subspecies shows a "golden" glance with a fine dark wave pattern. Males may have prominent blue outer ventral scales and intensively red or orange undersides. This lizards seem to be rather rare and local. They seem to have a preference for mountainous habitats (on Evia and Peloponnese they live in altitudes above 1000 m) – but there also have been lowland records.

It may co-occur with the following Wall Lizard species:

- [Podarcis muralis](#): this species may look similar. Usually, *Podarcis muralis* is darker brownish and frequently shows a dark vertebral line which lacks in *Podarcis erhardii livadiacus*. Where both species co-occur (e.g. on Evia), *Podarcis muralis* occupies more humid micro-habitats.
- [Podarcis tauricus](#) and [Podarcis ionicus](#) differ from *Podarcis erhardii riveti* by their green colouration and the unspotted labials.
- [Podarcis peloponnesiacus](#): On Peloponnese, both species co-occur. In particular, females may look very similar. However, *Podarcis erhardii* frequently has dark spots on the labial scales which lack in *Podarcis peloponnesiacus*. Furthermore, *Podarcis peloponnesiacus* may show a dark vertebral line, which lacks in *Podarcis erhardii*.



Subsp. *livadiacus*, male: GR / Feneos, 26.10.2012 - Note the red throat.

Western Aegean group



Subsp. *erhardii*, male: GR / Serifos, 18.04.2018 - The lizards from Serifos and Sifnos are referred to the nominate subspecies.

The lizards of the Western Cyclades are quite variable: On Serifos, males as well as females have striking yellow throats; on Sifnos, they have whitish throats and on Kithnos, they show dark spots on the throats.

As on these islands *Podarcis erhardii* is the only small Lacertid it may hardly be confused with other species. Juvenile [Lacerta trilineata hansschweizeri](#) on Serifos may also show yellow throats but they frequently have characteristic light dorsolateral and vertebral lines.

Central Aegean group



Subsp. naxensis, male: GR / Naxos, 01.04.2016 - Note the green back and the red throat.



Subsp. naxensis, male: GR / Naxos, 29.03.2016

Eastern Aegean group



Subsp. *syrinae*, male: GR / Astypalaia, 26.03.2016 - Note the brownish colouration without dark markings.

The Wall Lizards of the eastern Aegean Islands significantly differ from those on the central Cyclades: They frequently show a reduced colouration, often greyish or brownish, with short limbs and pointed snouts. Amazingly, they were able to establish populations on several small uninhabited islets which are separated from the Central Cyclades by water depths of several hundred meters. These "deep water" populations seem to be more ground-dwelling, compared to their relatives on the Cyclades. Evolution is still going on here - fascinating!

The eastern distribution limit of this group is marked by the Mid Aegean Trench (with two exceptions, see below). East of this, *Podarcis erhardii* is replaced by the genus *Anatololacerta* (e.g. Rhodos, Nisyros).

Being the only Lacertids within their range, they cannot be confused with other species.



Astakida population, male: GR / Astakida (Dodecanese), 28.05.2019. The Astakida cluster west of Karpathos Island hosts the southernmost population of *Podarcis erhardii*.



Pergousa population, female: GR / Pergousa (Dodecanese), 18.05.2018 - The uninhabited islets of Pergousa and Pachia (off Nisyros / Dodecanese) hold the only populations of *Podarcis erhardii* east of the Mid Aegean Trench. Note the rather short limbs.



View from Astypalea (Dodecanese) to the uninhabited islets of Dio Adelphi and Syrna: home of additional remarkable populations of *Podarcis erhardii* - welcome to evolution's playground...

* Our structure of five groups is based on genetic analysis by POULAKAKIS et al.
POULAKAKIS, N. & LYMBERAKIS, P. & VALAKOS, E. & ZOUROS, E. & MYLONAS, M. (2005) - Phylogenetic relationships and biogeography of *Podarcis* species from the Balkan Peninsula, by bayesian and maximum likelihood analyses of mitochondrial DNA sequences. - *Molecular Phylogenetics and Evolution*, 37 (3): 845-857.

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