

## Records of the Common Wall Lizard *Podarcis muralis* (Laurenti, 1768) (Squamata: Lacertidae) from Poland

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**Abstract.** Two isolated populations of the common wall lizard, *Podarcis muralis* (Laurenti, 1768), were discovered in southwestern Poland in 2011 and 2013. Both populations inhabit quarries.

**Keywords.** *Podarcis muralis*, new distribution records, Poland, introduction.

We found two populations of *Podarcis muralis* (Common wall lizard) inhabiting quarries of Lower Silesia, Poland. In August 2011, we observed for the first time a few specimens of this lizard in the quarry of Strzelin. In April 2013, several individuals were also observed for the first time in the quarry of Przeworno. We made at least 23 visits to Strzelin from 2011 to 2013, having seen at least a dozen adults and a few juveniles in each visit. We made 5 visits to Przeworno in 2013, each time recording several adults and a single juvenile. The area we found the common wall lizard populations is characterized by mean annual temperatures of 8–9°C (–2––1°C in January, 17–18°C in July), total annual precipitation of 550–600 mm (20–30 mm in January, 90–100 mm in July) and annual sunshine duration of 1620–1640 hours (30–40 hours in December, 220–240 hours in July) (IMGW, 2013).

The 15 adults captured had the following features: body slightly flattened, body scales lightly keeled, collar smooth-edged, masseteric scale present, supraciliary granules present, first supratemporal scale shallow, parietal scale not emarginated, rostral scale not in contact with frontonasal scales, and one postnasal scale. The back was brownish with dark, vertebral series of spots and dark flanks, belly and throat whitish, orange or red, while throat covered with a rusty spots. Sides

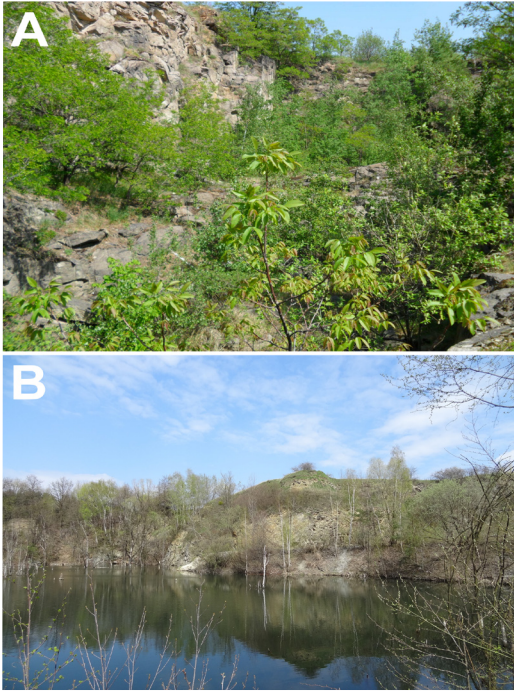
of the tail with black and white spots. We identified the specimens as the common wall lizard, *Podarcis m. muralis* (following Arnold and Ovenden, 2002; Schulte et al., 2011; Fig. 1A, B). However, further genetic analyses are required to confirm the identification of subspecies.



**Figure 1.** A – Adult male (from Przeworno), B – Gravid female (from Strzelin) of *Podarcis muralis* (Laur.). Photograph: T. Majtyka.

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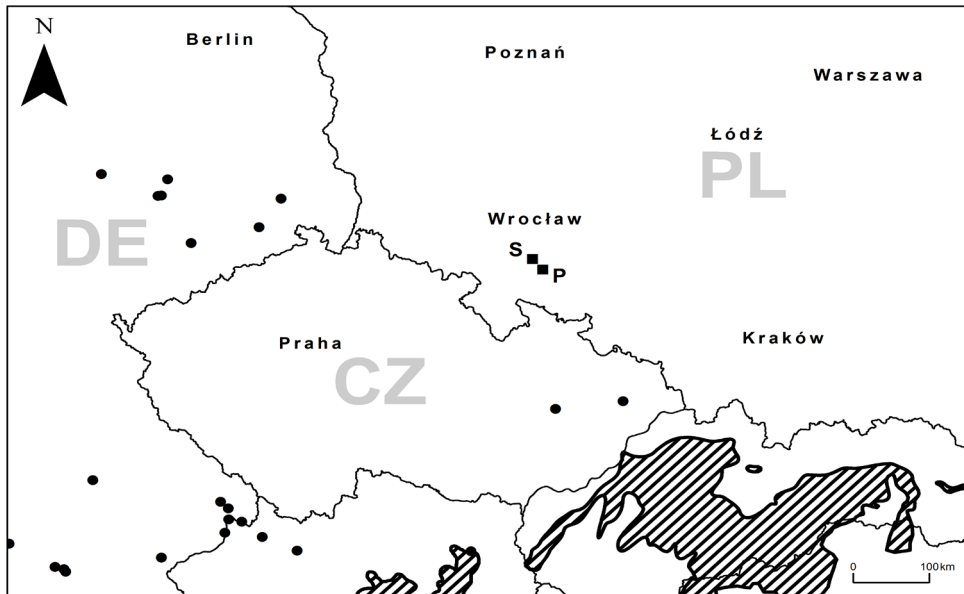
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**Figure 2.** Habitats of common wall lizard, *Podarcis muralis* (Laur.), in Poland. A – Strzelin, B – Przeworno. Photograph: T. Majtyka and M. Wirga.

Behaviour was also an important aspect. The common wall lizard is a good climber and some lizards fled onto vertical rock walls, occasionally several meters high.

Pax (1925) mentioned that a few individuals of *Podarcis muralis* have been released into the wild in Silesia (SW Poland). However, this species was not recorded in Poland (Berger, Jaskowska and Młynarski, 1969; Juszczyk, 1987; Berger, 2000; Głowaciński and Rafiński, 2003). The time of appearance of this species in the areas is not known. Common wall lizards had not been recorded in both quarries in the 1980s, inhabited only by sand lizards (*Lacerta agilis*) (Chlebicki, 1988). Hence, it can be concluded that the populations we found have less than 25 years. The population from Strzelin (50.7788° N, 17.0530° E, 167 m a.s.l.) is located in an abandoned part of a big granite quarry, extending throughout an area of ca. 31.83 ha (Fig. 2a), while the population from Przeworno (50.6935° N, 17.1767° E, 185 m a.s.l.) inhabits a small, abandoned marble quarry, covering an area of ca. 2.27 ha (Fig. 2b). The two populations are about 13 km apart. The other nearest introduced populations of common wall lizard are at a distance of about 135 km southward (Krčmaň, Czech Republic; Šandera, 2013) and about 220 km westward (Kamenz, Germany; Schulte et al.,



**Figure 3.** Occurrence map of the common wall lizard, *Podarcis muralis* (Laur.), in Central Europe. Hatched area = native range, dots = localities of introduction (Schulte et al., 2011; Šandera, 2013), squares = new localities after this study, S – Strzelin, P – Przeworno; PL – Poland, CZ – Czech Republic, DE – Germany. Native range data are based on the following websites: [www.feldherpetologie.de](http://www.feldherpetologie.de); [www.herpiterkep.mme.hu](http://www.herpiterkep.mme.hu); [www.nipi.sazp.sk](http://www.nipi.sazp.sk)





**Figure 4.** Freshly hatched individual of *Podarcis muralis* (Laur.) (Strzelin). Photograph: T. Majtyka.

2011). Polish populations could be considered as the northernmost limit of the species range (Fig. 3).

From our 2-year phenological observations at Strzelin, we found that after their winter torpor, the lizards appear in the first half of April (10<sup>th</sup> and 15<sup>th</sup> April), while the last ones can be seen in mid-October (11<sup>th</sup> and 14<sup>th</sup> October). Freshly hatched individuals (Fig. 4) occur from early August (4<sup>th</sup> August) until mid-September (17<sup>th</sup> September).

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## References

- Arnold, E.N., Ovenden, D.W. (2002): Reptiles and Amphibians of Europe. Princeton Field Guides. Princeton and Oxford, Princeton University Press.
- Berger, L., Jaskowska J., Młynarski M. (1969): Katalog fauny Polski, No. 39. *Plazy i gady*. *Amphibia i Reptilia*, No. 14. Warszawa, Państwowe Wydawnictwo Naukowe.
- Berger, L. (2000): *Plazy i gady Polski*. Klucz do oznaczania. Warszawa and Poznań, Wydawnictwo Naukowe PWN.
- Chlebicki, A. (1988): Herpetofauna Wzgórz Strzeleckich na Dolnym Śląsku. *Acta Universitatis Wratislaviensis* 972, *Prace Zoologiczne* **19**: 37-52.
- Głowaciński, Z., Rafiński, J. (eds). (2003): Atlas płazów i gadów Polski. Warszawa, Główny Inspektorat Ochrony Środowiska.
- IMGW (Instytut Meteorologii i Gospodarki Wodnej) (2013): *Mapy klimatyczne dla Polski*. Available at: <http://www.imgw.pl>. Last accessed on 31 May 2013.
- Juszczyk, W. (1987): *Plazy i gady krajowe*. Part 3 – gady. Warszawa, Państwowe Wydawnictwo Naukowe.
- Pax, F. (1925): *Wirbeltierfauna von Schlesien*. Faunistische und tiergeographische Untersuchungen im Odergebiet. Berlin, Gebrüder Borntraeger Verlag.
- Schulte, U., Bidingler, K., Deichsel, G., Hochkirch, A., Thiesmeier, B., Veith, M. (2011): Verbreitung, geografische Herkunft und naturschutzrechtliche Aspekte allochthoner Vorkommen der Mauereidechse (*Podarcis muralis*) in Deutschland. *Zeitschrift für Feldherpetologie* **18**: 161-180.
- Šandera, M. (2013): Map of distribution of *Podarcis muralis* in the Czech Republic. In: Zicha O. (ed.) *Biological Library – BioLib*. Available at: <http://www.biolib.cz>. Last accessed on 31 May 2013.