

Verbreitung und Herkunft allochthoner Populationen der Mauereidechse (*Podarcis muralis*) entlang des Bahnliniennetzes im österreichischen Bundesland Salzburg

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Distribution and origin of allochthonous populations of *Podarcis muralis* along the railway network of the Austrian province of Salzburg

While the common wall lizard (*Podarcis muralis*) is not native to the Austrian province of Salzburg, an allochthonous population became known in 2008 at a railway station in the northern lowlands of the province. Two further populations were discovered in 2014 and 2015 along the railway network in the city of Salzburg as well as at a railway station in the alpine valley area near Schwarzach. This study addresses questions on the overall distribution of the species in the province of Salzburg, the origin of introduced populations, habitat suitability and potential future dispersal of the species. Since all hitherto known populations of the common wall lizard have been located along the railroad network and transportation of cargo is one of the main dispersal vectors of this species, 38 locations along the railroad network of Salzburg have been surveyed. Seven of those 38 locations were occupied by wall lizards. In addition, buccal swabs were taken and sequenced from 48 individuals at seven sites. DNA-Barcoding using mitochondrial DNA was used to determine the genetic clades. With regards to potentially suitable habitat structures for wall lizards, all locations were examined in detail, while those currently unoccupied were also classified in potentially favourable and unfavourable habitats with the help of a habitat suitability scheme to predict future potential dispersal of the species. Individuals originating from four different genetic clades could be identified, suggesting introduction from several European locations. The sampled wall lizards from Schwöll, Steindorf, Elsbethen and Schwarzach refer to the Southern Alps clade (*Podarcis m. maculiventris*-West), while populations in the city of Salzburg additionally comprise individuals with haplotypes from the western and eastern France clades (both *Podarcis m. brogniardii*), as well as the central Balkans clade (*Podarcis m. muralis*). While some introduction pathways seem clear because of transportation of cargo from the geographical source regions, for the city of Salzburg the idea of a singular, secondary introduction of individuals of all four genetic clades appears more likely, because this area was populated only recently. Therefore, the wall lizards, which were introduced to the province of Salzburg, might be hybrids of different genetic lineages from all over Europe. The fact that since the end of the study three further areas in the province of Salzburg have been populated by *Podarcis muralis*, shows how dynamic the system is at the moment.

Key words: Reptilia, *Podarcis muralis*, invasive species, neozoon, mtDNA, province of Salzburg.