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Does the Dalmatian wall lizard (*Podarcis melisellensis*) have deprived chemical senses on islands compared to the mainland?

Charlotte Van Moorleghe¹, Sarah Van Goethem¹, Katleen Huyghe¹, Raoul Van Damme¹

¹ University of Antwerp, Universiteitsplein 1, 2610 Wilrijk, Belgium

Lacertid lizards are well known for their highly developed chemical senses which they use in a wide variety of contexts, among which is predator detection. How these senses evolve when in underuse is less well understood. For instance, island systems usually harbour fewer predators. These more simple ecosystems potentially do not require the lizard to have as highly developed chemical senses as their mainland counterparts. As the maintenance of a chemosensory apparatus (i.e. chemosensory behaviour as well as the underlying neuronal mechanics) may be costly, we expect a reduction in chemosensory system use at the behavioural and neuronal level in island populations. This was investigated for Croatian mainland and island populations of the Dalmatian wall lizard (*Podarcis melisellensis*, Braun 1877). We performed behavioural assays and micro-CT scanning of chemosensory brain areas to analyse both aspects of the chemosensory system. If island lizards have deprived chemical senses, this could imply a higher vulnerability to environmental changes. Such an environmental change is, for instance, the introduction of an alien predator, a case which is occurring on some of the Adriatic islands on which the lizard is present.