

Mega-bites: Rapid increase in lizard bite force following replicated introduction to small Greek islets

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The “struggle for existence” is especially stark on small islands where selection strongly favors phenotypes that facilitate the acquisition or monopolization of scarce resources. For many animals, maximum bite force dictates the winners of this struggle, enabling access to food, shelter, and mates. Lizard bite force is highly variable between island and mainland contexts and is most often significantly higher in dense, small-island populations. However, studies demonstrating significant increases in bite capacity on islands are typically comparative, contrasting populations with unknown evolutionary histories. We initiated an island introduction experiment to directly investigate the dynamics of how the Aegean Wall Lizard (*Podarcis erhardii*) bite force changes over time following the colonization of small islands. We documented a substantial increase in bite force among five replicate lizard populations introduced to Greek islets in only three years. Furthermore, we found that changes in the allometry of bite force have caused adult lizards to have proportionately much harder bites as they grow larger. Contrary to predictions, however, hard bites did not provide a survival advantage for lizards *per se*. Our results suggest that introduction to these small-island ecosystems has driven a fundamental shift in the natural history of these lizards and demonstrates the rapidity with which lizard bite force can change to adapt to new ecological contexts.