



«Actions to protect, conserve and promote biodiversity. Field studies of endemic, endangered and nationally important species of Greece». Funded by the Natural Environment and Climate Change Agency (NECCA)

TITLE

Navigating Aegean Islets: in Search of the MilOs wall lizard Secrets

(Project ID: 14848)

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ABSTRACT

Island life has always been a fascinating field of study. The particularities of insularity dictate a series of adaptations, such as the Island Syndrome, the Island Tameness and the Island Rule. The role of insularity is further intensified on small islets: the Small Island Effect and the Reverse Island Syndrome describe the responses of species to microinsular environments. The aim of the proposal is to explore the adaptations and phylogeny of the endemic, stenotopic Milos wall lizard in the isolated islets of its range. The Milos wall lizard (*Podarcis milensis*) is a robust, small-sized lizard classified as Vulnerable in the IUCN Red List. It spreads throughout the Milos Archipelago (as *P. m. milensis*) and on the remote islets of Ananes (*P. m. adolfjordansi*), Falconera and Velopoula (*P. m. gerakuniae*). The only knowledge for these islet populations consists of morphological measurements since in the mid 20th century. As part of the proposal, we will visit the three islets and record in situ morphological (snout vent length, body weight, body condition, tail condition), thermal (body and operative temperatures), demographic (population density, sex ratio and age), behavioural (flight initiation distance) and feeding ecology measurements. Subsequently, we will collect 12 individuals/population and transfer them to specially designed rooms at the NKUA in order to carry out ecophysiological (selected body temperatures, digestive efficiency, speed and endurance) and behavioural (neophilia and neophobia) experiments. To clarify whether the three subspecies represent distinct evolutionary lineages, two mitochondrial and four nuclear markers will be analysed in the molecular ecology laboratory (AUTH). Finally, based on the phylogenetic tree, a species delimitation analysis will be performed to evaluate the current taxonomy and resolve potential discrepancies. The specimens will be deposited at the Zoological Museum, NKUA.
