



«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

Distribution patterns and ecology of three mountainous endemic and endangered Orthoptera species of Greece

(Project ID: 14727)

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ABSTRACT

Greece is a center of biodiversity and endemism for Orthoptera, hosting 140 endemic species, and 139 threatened species according to the IUCN criteria, while our knowledge is fragmentary and insufficient for this important group of insects. The DEMO research project focuses on three steno-endemic and high-altitude (>1500 m) Bush-crickets that are threatened with extinction: *Parnassiana parnassica* is a Critically Endangered (CR) species (Parnassos and Elikonas Mts), *Parnassiana tymphrestos* is an Endangered species (Oiti and Tymphrestos Mts), and *Parnassiana coracis* is a Vulnerable (VU) species (Vardoussia Mt). The *Parnassiana* populations of Vardoussia, Helidona and Kaliakouda Mts need to be genetically examined for their taxonomic classification (*P. coracis* or *P. tymphrestos*). The project will produce new data for all three species, also complementing the database recently produced in our Lab (BCL) for the two first species. DEMO includes extensive fieldwork in the above seven mountains in the summer of 2023, with the aim of mapping and/or updating the global distribution of the target species. In addition, it includes a collection of environmental data and description of the vegetation in the habitats of the target species, and an assessment of their population status and existing pressures and threats. Finally, it includes the collection of samples of *P. coracis*/*tymphrestos* and genetic analysis to clarify their taxonomic classification, to reliably map their global distribution. The project will produce the required knowledge background for the assessment of the conservation status of the species according to the IUCN criteria and will provide NECCA and the relevant Management Unit with new primary field data and proposals for the biomonitoring of the species and for the conservation and management of their habitats, with wider benefits for maintaining the biodiversity of mountainous grasslands.
