N.E.C.C.A

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TITLE

Evaluation of the taxonomic and conservation status of the Greek endemic plant Acinos nanus P.H. Davis & Doroszenko (Lamiaceae)

(Project ID: 13692)

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ABSTRACT

Acinos nanus P.H. Davis & Doroszenko, is a Greek endemic annual plant of the Lamiaceae family. It occurs in Crete and in East Aegean islands. The taxonomic boundaries between A. nanus and the related taxa, i.e. the widespread Mediterranean A. graveolens (M. Bieb.) Link, and the endemic of Cyprus A. exiguus (Sm.) Meikle, are obscure. Data about its conservation status are lacking. The aim of the proposed project is: a) to evaluate the taxonomic status of Acinos nanus in relation to its allied taxa, b) to collect and assess scientific information on geographical distribution, population size, reproductive biology and diversity of A. nanus, and c) to evaluate its conservation status. All the available information will be used to map the known distribution of A. nanus, and to find localities of related taxa in its area of distribution. A fieldwork session will be held, to collect material of A. nanus and the two related taxa and to record field data about the population of A. nanus, namely habitat characterization, subpopulation sizes, reproductive biology and threats. The morphology of the collected specimens will be studied using modern morphometric tools and more than 20 characters will be studied. A number of regions from the nuclear and plastid genomes, showing variability and capable of discriminating species, will be studied, aiming at markers allowing for species identification. PCR amplification and sequencing will follow to reconstruct the phylogenetic relationships among the studied taxa. The morphological and genetic variation and the taxonomic status of A. nanus in relation to its allied taxa will be evaluated. Data from the study of A. nanus population will be used to map the Area of Occupancy and Extent of Occurrence. Plant community analysis will be performed. Floristic composition changes and correlations to environmental parameters will be also examined. Its conservation status will be evaluated using IUCN Red List criteria.