



**«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)**

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## **TITLE**

**Morphological variation, reproductive modes, and conservation of endangered *Limonium* species (Plumbaginaceae)**

(Project ID: 14824)

## **PRINCIPAL INVESTIGATOR**

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## **ABSTRACT**

*Limonium* (Plumbaginaceae) is a genus of primarily coastal habitats, often specialized in rock crevices with saltrich soil. Eighty-five *Limonium* species have been recorded in Greece, 75 of which are considered endemic to the country (endemism rate of 88%). Hybridization, polyploidy and apomixis are present in *Limonium*, responsible for species evolution but perplexing morphological and taxonomic diversity. Very few Greek species have been evaluated according to the IUCN criteria. This proposal concerns two Greek endemic *Limonium* species: *L. messeniicum* and *L. aphroditae*. They are both considered as Endangered, according to The Red Data Book of Rare and Threatened Plants of Greece. They are also narrow endemics, with *L. messeniicum* being found in Messinia, between Avia and Kitries villages, and *L. aphroditae* growing exclusively at Limnaria Bay of Kithira Island. We intend to devote extensive fieldwork to these species, including morphological, population and demographic studies, sampling and recording of habitat parameters and evaluation of possible threats. The structure and function of their breeding systems, to understand reproductive success, will be investigated in situ and in the laboratory. Chromosome studies will be performed in the laboratory. As a result of our study: a) the two species will be re-delimited morphologically and chromosomally; b) their habitat and distribution will be updated, including current number, structure and richness of their populations; c) their mode and success of reproduction will be assessed; d) conservation targets will be set, including possible re-evaluation of their IUCN status; e) our results will be presented to local authorities aiming at knowledge dissemination and conservation effectiveness.

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