



«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

Seed germination traits and implications for native woody species' conservation: the endangered *Juniperus drupacea* Labill. and the endemic *Acer hyrcanum* subsp. *reginae-amaliae* Orph. ex Boiss on Mt Parnon (Peloponnese, Greece)

(Project ID: 13687)

PRINCIPAL INVESTIGATOR

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ABSTRACT

The present project aims to the study of the biology of two important tree species from the area of Mt. Parnon (GR 2520006), the *Juniperus drupacea* and *Acer hyrcanum* subsp. *reginae-amaliae*. *J. drupacea* is a rare juniper species for Europe, its populations are found only in Greece; the species is characterized in its European distribution as endangered (EN) and as least concern (LC) in its global distribution. *A. hyrcanum* subsp. *reginaeamaliae* is an endemic species of Greece with its main distribution in the Peloponnese, the islands of Kythira and Antikythira, the Central Greece and the islands of the West Aegean, on Mt. Parnonas its presence was recently described. We aim in the present project to study the reproductive biology of the two tree species; here we should mention that the preliminary aspects of the reproductive biology of *J. drupacea* have been previously studied in the ongoing project (JUNIFOR, 2020-2022). For the seed collection periods (September – November) we will visit and collect cones/fruits/seeds from the entire distribution of the two species for the maturation years 2023 and perhaps for the next year (2024). The seeds will be stored in the NKUA Seed Bank and their storage behaviour will be studied, in the span of a year of storage, with tetrazolium viability staining, for *J. drupacea* the same study will be performed to older collection stored in the Seed Bank from the years 2020 and 2021. The germination behaviour of the species will be studied, particularly for *J. drupacea* the effect of GA3 on seed germination will be accessed, while for *A. hyrcanum* subsp. *reginae-amaliae* the effect of light and cold stratification on the seed germination will be studied. Lastly, for *A. hyrcanum* subsp. *reginae-amaliae* which have not previously been extensively



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studied, fruit and seed morphometric traits will be gathered (seed mass and dimensions) from its populations on Mt. Parnonas, for the first time.
