



«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

Mapping Endangered Sea Anemones in Lake Vouliagmenis

(Project ID: 14847)

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ABSTRACT

The Sea anemone *Paranemonia vouliagmeniensis* (Doumenc, England & Chintiroglou, 1987) is a steno-endemic endangered species found only within the confines of the tectonic lagoon Lake Vouliagmenis, formed roughly 2,000 years ago in the region of Attica, Greece. The habitat of *P. vouliagmeniensis* is a tourism hotspot visited by thousands of tourists each year for the area's geothermal properties. Since the description of *P. vouliagmeniensis* in 1987, knowledge surrounding the anemone has been subject to sporadic sampling and monitoring surveys, which recorded a large decline in spatial density of the species at the site (the last in 2013 recorded a decrease of up to 50% in density). In addition, no phylogenetic evidence is available to describe the genetic distances between other species of the genus. The aims of the study are threefold. Firstly, the provision of an updated assessment of the spatio-temporal distribution of the species (including an assessment of the current ecological status of the habitats within the lagoon that are crucial throughout its lifetime). This will be achieved through seasonal sampling of the site with a remote-controlled underwater drone in parallel to in-situ ground-truthing to deliver a geo-referenced habitat and density map of the lagoon. The second aim is to fill the genetic knowledge gap of the species and present the phylogenetic profiles of the whole *Paranemonia* genus, whose species are both present in Greek lagoons (*P. vouliagmeniensis* and *P. cinerea*). This will be done through the collection and sample processing of specimens from locations where they are known to be present (e.g. Amvrakikos Gulf). The final aim of the project is the provision of dissemination material (for commercial and non-commercial use) regarding this endemic species to both the scientific community and the society at large, in an attempt to increase the sustainability of tourism activities at the site.
