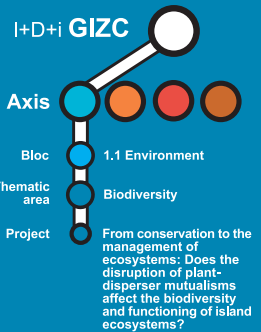


Project FROM CONSERVATION TO THE MANAGEMENT OF ECOSYSTEMS: DOES THE DISRUPTION OF PLANT-DISPERSER MUTUALISMS AFFECT THE BIODIVERSITY AND FUNCTIONING OF ISLAND ECOSYSTEMS?

I+D+i
GIZC
GESTIÓ INTEGRADA
DE LA ZONA COSTANERA

Axis
Bloc 1.1
Thematic area

Disciplinary research
Environment
Biodiversity and global change



Summary

Biological invasions currently represent one of the main threats to the planet's biodiversity. Island ecosystems are more susceptible to the effects of such introductions due to various factors: the particular composition of existing species and functional types, which differ greatly from the continent; the specificity of interactions that have evolved in island ecosystems, as well as intrinsic characteristics of native species (for example, lack of defence against predators/herbivores, etc.).

There are numerous documented cases in which the introduction of an exotic species has had severe effects on island species, something provoking a subsequent chain of events on the rest of the ecosystem. One of these cases is the wall lizard *Podarcis lilfordi*, endemic to the Balearic Islands, which has been lost from the larger islands due to the introduction of exotic predators. Localised extinction of the Balearic wall lizard has had very negative consequences for some endemic plants that depend on them for their dispersal.

Actions

- Assess the contribution of the Balearic wall lizard in the dispersal and successful reproduction of the shrub *Ephedra fragilis*, which is locally prevalent in the most degraded areas of the coastline.
- Quantify Majorcan populations of *Ephedra fragilis* in the Natural Park of Sa Dragonera and the Cap de Formentor.
- Quantify the indirect effect of the extinction of an endemic disperser (the wall lizard *Podarcis pitiusensis*) has on the diversity and functioning of the coastal ecosystem.



Balearic wall lizard. *Podarcis lilfordi*



GPS positioning of sampling points



Study of plants by substrate



Mark and recapture tasks

Applications

Research

The project aims to assess empirically a process that has until now remained undocumented. Due to the high level of innovation, the results of this project will be of use to biology departments studying the conservation of the various organisms being research.

Administration

The administrative structures managing natural spaces such as Sa Dragonera (the Balearic Ministry of the Environment, Area of Coasts, etc.) and other businesses managing nature will find key elements in this work both to justify conservation strategies for these areas, and approach the technical aims of their management more effectively.

Principal Investigator

Prof. Joaquín Tintoré

e-mail: jtintore@uib.es

IMEDEA

C/ Miquel Marqués, 21
07190 Esporles, Mallorca
Illes Balears, ESPAÑA

Tlf: +34 971 611 714
Fax: +34 971 611 761

www.imedea.uib.es

Contact

Co-principal investigator Team research

Luís Santamaría
viealsg@uib.es

Asier Rodríguez
asier.rodriguez@uib.es

Giacomo Tavecchia
g.tavecchia@uib.es

Lucia Latorre
lulatorre@hotmail.com

Juan José Pericás
vieajpg@uib.es

