BUS BIODIVERSITY ON URBAN STRUCTURES

AT A GLANCE

Title: “Urban Structures: a driver of biodiversity change in coastal ecosystems?”

Instrument: FCT

Total Cost: 83.949,00

Duration: 20 months

Start Date: 01-05-2013

Consortium:

CIIMAR

UAç

CIRN

UoP

Project Coordinator: Ana I. Neto

Project Web Site: www.bus-project.info

Key Words: Coastal urbanization, Microhabitat, Habitat restoration, Biodiversity

THE CHALLENGE

Assess the extent of differences among urban structures and nearby rocky shores and predict the influence of habitat change on the distribution, abundance, dynamics and structure of intertidal communities on oceanic islands.

PROJECT OBJECTIVES

Identification of the factors that cause taxa to differ in composition and abundance between urban structures and the nearby natural habitat through the evaluation of (i) the effects of habitat loss due to coastal urbanisation at both small and large scales; (ii) the role of habitat slope and orientation in structuring rocky intertidal assemblages on both natural and artificial structures; and (iii) the factors that limit the successful establishment of canopy forming algae on artificial structures.

METHODOLOGY

- Task 1. Descriptive pilot survey to gather information on the urban structures around the island of São Miguel and their associated biota.
- Task 2. Evaluation of the effects of coastal urbanisation at both small and larger scales.
- Task 3. Examination of the role of habitat slope in structuring rocky intertidal assemblages on both habitats.
- Task 4. Determination of the role of microhabitat configuration as refugia for harsh conditions and protection from predation.
- Task 5. Evaluation of the factors that limit the successful establishment of canopy algae on artificial structures by analyzing the survival, growth and recruitment of transplanted and non-transplanted plants of *Fucus* and *Cystoseira*.

EXPECTED RESULTS

Aid programmes of restoration or rehabilitation of damaged habitats and contribute to the ecological criteria that should be considered in the design and management of artificial structures.

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