



Implications of community and stakeholder perceptions of the marine environment and its conservation for MPA management in a small Azorean island



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ABSTRACT

Incorporating values, views and expectations held by local stakeholders is fundamental to the management of marine protected areas (MPAs), particularly in small islands where MPAs are central assets of the local economy and society. In this study, we used a combination of quantitative and qualitative methods to understand what drives the use of marine and coastal areas, to explore local and expert views of the marine environment and its conservation, and ultimately to determine approaches to MPA management that best reflect local needs and desires. The study focused on Corvo Island, which includes the largest coastal MPA in the Azores Archipelago, yet remains without a current management plan. Evidence of a strong ocean-oriented cultural identity, with a clear gender dichotomy in the patterns of marine and coastal use, was found. Participants recognized the strategic value of the marine environment for the island's economy, and strategies to promote the sustainable use of marine resources based on local values and views were suggested. There was a widespread perception of declining species abundance, ecological unbalances caused by biodiversity loss, and significant changes from the status quo with regards to the maritime environment. This was reflected in a common recognition of marine ecosystem vulnerability, yet the local community and stakeholders presented different views on what the main threats were. In any case, we found strong local support for marine conservation initiatives, particularly MPAs. However, stakeholders differed in their views on MPA goals and outcomes, reflecting negative perceptions on the government's capacity to manage the Corvo MPA. Based on these results, we discuss implications for MPA implementation, particularly for the development of specific MPA goals shared by all stakeholders.

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1. Introduction

For coastal nations around the world, marine protected areas (MPAs) are fast becoming essential tools for marine conservation and key components for ecosystem-based approaches to fisheries management and marine spatial planning (Halpern et al., 2010; Katsanevakis et al., 2011; McCay and Jones, 2011). MPAs vary in design, management model and extent of protection, depending on the biological, physical and socio-economic characteristics of the

site and on the goals the MPAs are intended to achieve, which usually fall under marine conservation and/or marine resource management (Agardy et al., 2003; Allison et al., 2003; Halpern et al., 2010; Pauly et al., 2005).

Marine conservation goals includes an array of specific objectives such as protecting rare and vulnerable habitats and species, restoring ecological functions, preserving biodiversity, encouraging research and education and maintaining aesthetic values and traditional uses (Halpern and Warner, 2003; Jones, 2001). MPAs focusing on marine resource management have been strongly recommended as an alternative or complement to traditional fisheries management methods (Botsford et al., 2009; McCay and Jones, 2011; Pauly et al., 2002). MPAs are acknowledged for achieving specific fisheries management goals such as the enhancement of recruitment, the restoration of healthy trophic

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