

Marine Conservation in a Southwest Portuguese Natural Park

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ABSTRACT

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Most of the SW Portuguese continental coast is protected by a natural park (Parque Natural do Sudoeste Alentejano e Costa Vicentina – PNSACV). A marine zone 2 km wide has been designated along the coast of this park (ca. 130 km) with oceanic sandy beaches, extensive rocky shores, and small estuaries and coastal lagoons. In this coast, intensive and traditional fisheries affect several target species for subsistence, commercial use or recreation. Most regulations are national and almost no specific regulations are in place to allow sustainable exploitation. Control and enforcement are generally insufficient or ineffective and the decrease of catches and the increase of fishing effort are apparent. In order that these resources and habitats can be exploited sustainably, there is an urgent need for taking management and conservation measures, like the effective use and update of existing regulations and the designation of marine protected areas. The restoration of exploited populations in marine reserves is one of several potential benefits of this protection, as well as the export of fish biomass to adjoining areas and the improvement of conservation, education, science, tourism and recreation. The existing marine protection of this natural park is an opportunity for taking such management and conservation measures, in an adaptive and integrated process that should allow co-responsibility of users and managers. We present a review of estimates of intensity and yield of fisheries, data on users perception of management and conservation needs, and proposals for the implementation of a marine conservation programme in PNSACV through the designation and management of marine protected areas.

ADDITIONAL INDEX WORDS: *Fisheries intensity and yield, Fishermen perception, Co-management, Marine protected areas.*

INTRODUCTION

Several marine protected areas have been designated in Portugal, namely in the Atlantic islands (SANTOS *et al.*, 1995; FERRAZ *et al.*, 2001), but many have no management plan and most lack its implementation (KELLEHER *et al.*, 1995; CRUZ, 2000; ANDERSSON *et al.*, 2003). A non-governmental Portuguese organization has recently concluded that “*marine biodiversity in Portugal is very high, but so it is the degradation caused by overfishing, pollution and poor coastal management practices*” (ANDERSSON *et al.*, 2003).

In the natural park “Parque Natural do Sudoeste Alentejano e Costa Vicentina” (PNSACV; Figure 1), located in the SW coast of continental Portugal, a marine zone 2 km wide along its coast was designated since 1995. With almost 130 km length, it comprises oceanic sandy beaches, extensive rocky shores, and small estuaries and coastal lagoons. However, intensive fisheries affect several target species for subsistence, commercial use or recreation in this coast (CASTRO *et al.*, 2000; CRUZ, 2000; CASTRO, 2004).

In marine PNSACV, there is a lack of specific regulations to allow sustainable exploitation, control and enforcement are generally insufficient or ineffective and the decrease of catches and the increase of fishing effort are apparent (CRUZ, 2000; JESUS, 2003; CASTRO, 2004). As well as in commercial fisheries, gathering food and bait for subsistence or recreation is expected to

increase in severity worldwide and continue to cause major impacts on marine communities (THOMPSON *et al.*, 2002).

Tourism, agriculture and fisheries are the main economic activities in this natural park. In order that the marine resources and habitats can be exploited sustainably, there is an urgent need for taking management and conservation measures. The existing marine protection of this natural park is an opportunity for taking such measures, but in an adaptive and integrated process that should allow co-responsibility of users and managers.

We present a review of estimates of intensity and yield of fisheries published elsewhere (*e.g.* CASTRO, 2004; DGPA, 2008), unpublished data on fisheries and on users perception of management and conservation needs, and proposals for the implementation of a marine conservation programme in PNSACV through the designation and management of marine protected areas (MPAs).

PROBLEMS AND OPPORTUNITIES

Fisheries

In PNSACV, the highest fishing effort is probably made for commercial purposes. Main fishing ports are located near both northern (Sines) and southern (Sagres, Lagos and Portimão) ends of this park (Figure 1). Other small fishing ports can be found along its coast. In 2007, the total amount of marine fish landed at