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Executive Summary

Despite the recent revisions of the Portuguese recreational fishing legislation, and the importance of this activity in Portugal, existing scientific information is still scarce, resulting in inadequate management measures. In the Portuguese south coast in particular, scientific information is almost non-existent.

This study aimed to characterize the shore based recreational fishing in south and southwest of Portugal, between Vila Real de Santo António and Sines (250 Km coastline). A non-uniform probability complemented survey was conducted monthly between August 2006 and July 2007, using roving creel surveys, aerial surveys and fishing logbooks. Roving creel surveys and logbooks were used to gather information on socioeconomic and fishing trips, including demographics, expenditures, target species, catches (released and retained), etc. Aerial surveys provided information on fishing effort.

In total, we carried out 192 roving creel surveys, 24 aerial surveys and distributed 256 logbooks to volunteer anglers. During the roving creel surveys, 1321 anglers were interviewed, resulting in usable fishing trip data from 1318 questionnaires, and socioeconomic information from 1201 questionnaires. Response rates were high (~95%) in the roving creel surveys, fishing logbooks had a low return rate (~7%).

The majority of recreational anglers sampled were male, married, professionally active, in their late forties, with a low level of education, and with an average monthly income of 500-1000€ (excluding taxes). 77 % lived in one of the two regions of the sampling area (Algarve or Alentejo). On average, anglers had 23 years of fishing experience. Most anglers fish all year round, with an average of 65 fishing trips/year, and do not have any particular habit or preference regarding day type or period of the day.

Overall, anglers spent 13.2€ per fishing trip, and 865€ per year, although only bait, tackle and transportation expenditures were considered in this study. Annual expenditures for the above mentioned items were estimated to total 2.2 million Euros in the study area.

In a typical fishing trip, the majority of anglers fish alone, from cliffs (west coast) or jetties (south coast), with only one rod and practice bottom fishing. Most use only one kind of bait, generally worms (*Nereis* spp.), mainly targeting seabreams (*Diplodus* spp.). Catches are mainly for personal consumption, and catch-and-release is still a rare practice.

Overall, 71% of the interviewees agreed with the existence of recreational fishing regulations, although the majority (53%) did not support most of the aspects of the current regulation. Only 7% of the anglers admitted not having a fishing license, and 53% were familiar with the minimum size limits.

Estimated total fishing effort was 705,236 angler-hours, corresponding to 166,430 fishing trips. Average time spent per fishing trip was 4.7 hours. Of the 1318 creels observed, only 831 had catches. A total of 48 species were recorded, belonging to 22 families. The most important family was Sparidae, represented by 16 fish species and comprehending 78% of the total catches in number and 75% in weight. Recreational fishers harvested approximately 160 tons of fish (788 048 individuals), of which only 147 tons (589 132 individuals) were retained. The most commonly caught species were white seabream *Diplodus sargus* (44%), common two-banded seabream *Diplodus vulgaris* (14%) and bogue *Boops boops* (8%).

Overall, shore based recreational harvests represented 0.5% of the commercial landings, for the same period, area and species. Regarding the most important species, only **white seabream** (65%), **grey triggerfish** (33%) and **spotted seabass** (16%), showed recreational harvest values higher than 10% of the commercial landings records.

This was the first study on recreational shore fishing in south Portugal, providing the first estimates of fishing effort and catches. The data obtained can be used in the future as baseline information for later studies, and can be a basis for the management and conservation of Portuguese fisheries resources. Nevertheless, it concerns only a specific area and time period (12 months), and does not take into consideration inter-annual variations, or night time catches. Also, it is important to note that this study was carried out during the transitional period of implementation of the current recreational fishing legislation.

Based on these results, the authors make some recommendations for future studies and suggest some revisions of the current Portuguese management guidelines and regulations.