

The value of fishing contest on monitoring fish communities and recreational fishing selectivity

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Evaluating fish communities along coastlines is central for fisheries sciences. Sport fishing contests are considered a useful tool for this purpose. These activities, if standardized, are powerful for studying variations in fish communities along space and time. Specifically, fishing tournaments serve as indicators of species relative abundance along a particular coastline. Additionally, in traditional sport fishing grounds, captures data provide evidence of changes over time. This is the case of marine fishing tournaments in Spain, where fishing associations organize periodical events of different fishing types. However, fishing contests data is not suitable to be extrapolated to recreational fishing captures. The reasons are that participants have no captures limit so they search for the maximum yield making selectivity very low and they are generally top-skilled fishers thus their catching efficiency is higher than the average fisher population. Consequently, inferring recreational fishing from contest's captures overestimates catch rates and misrepresents species composition. Recreational fishing data, on the other hand, provides information on target species according to fishing types and regions. Here, we aim to account for i) geographical and ii) temporal variations in the fish community using fishing contest records, and iii) infer on the selectivity of fish species by contrasting both sport and recreational data in each fishing type. These objectives are part of PECES, the first overall dimension of recreational fishing study in Spain. We believe that this novel approach will lead new insights in the differences between sport and recreational fishing and its potential on fish communities monitoring.

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