
Importance of rays and sharks for French fisheries and resulting fisheries impacts on populations

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Résumé

Many ray and shark species are bycatch of fisheries using different gears but due to their life history they are generally more sensitive to overfishing compared to the target species. Using detailed haul-by-haul catch observations from an onboard fishing vessels observation program we investigated spatial patterns of ray and shark bycatch as well as their contribution to fisheries revenues by gear type. The same data were also used to estimate population abundances. A crucial issue for these data is that not all individuals present will be caught by the fishing gear. This is commonly referred to as catchability and will tend to increase between-haul variability, and lead to excess zeros. Hence we included catchability in the models. To account for spatial trends and the non-random nature of the observation locations, we used spatial grids where grid cell size decreased with increasing number of observations. Estimated population time trends were then compared between species.

Mots-Clés: Sensitive species, onboard observations, contribution to revenues, fishing impact

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