

{rokbox title=|Map of the western Mediterranean showing the MEDITS stations developed between 1994 and 2015 used in the present study :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-diversity-chondrichthyans-mediterranean-fishing-exploitation-ramirez-et-al-2020-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-diversity-chondrichthyans-mediterranean-fishing-exploitation-ramirez-et-al-2020.jpg{/rokbox}

Sergio Ramírez-Amaro, Francesc Ordines, Antonio Esteban, Cristina García, Beatriz Guijarro

Francisca Salmerón, Bàrbara Terrasa and

Enric Massutí

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[The diversity of recent trends for chondrichthyans in the Mediterranean reflects fishing exploitation and a potential evolutionary pressure towards early maturation.](#)

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Abstract: Chondrichthyans are a vulnerable group that has been overexploited for almost half a century in the Mediterranean. Since in this area most chondrichthyans are rarely incorporated into international statistics, the impact of fishing on their populations is difficult to assess. Here, we evaluate temporal trends in order to understand the recent history of chondrichthyans in the western Mediterranean. Fishery-independent data were obtained from scientific surveys carried out from 1994 to 2015 in three geographical sub-areas. Our results reflect fairly stable populations in terms of diversity, with some increase in density and standardized biomass of some species dwelling on the continental shelf, and even for some species dwelling on the slope. In contrast, decreasing trends were observed in some deep-water species. This can be explained by the reduction of the trawling effort on the continental shelf over the last few decades, and the shift of the fleet towards deep waters, along with the greater resilience displayed by some species. Furthermore, a decreasing trend in maturity of *Scyliorhinus canicula*

was detected, suggesting an evolutionary response to overfishing. These results improve scientific knowledge for developing true adaptive management in the Mediterranean that will implement measures to strengthen or initiate the recovery of chondrichthyans.

Keywords: