

Title: **Evidence of Fishing Down Marine Food Webs in Galician (Nw Spain) Small-Scale Fisheries**

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Abstract: Ecosystems are one of the most productive fishing grounds in the world, with important commercial and valuable fish stocks. However, overfishing, IUU activities, discards, habitat destruction and alteration of the biogeochemical conditions of the ecosystem combined with an increase in fish demand continue to drive fisheries to an alarming situation. Hence, the main goal of this paper is to (i) study the ecosystem impact of fisheries via a test of the occurrence of the fishing down effect by examining trends of mean trophic level (TL) of catches and (ii) use the Fishing in Balance (FiB) index to test if Galician marine fisheries are sustainable or not. The temporal trend in the mean trophic level, fisheries-in-balance index and trophic categories catches of the exploited marine community (~160 species) in the Galician small-scale fisheries were examined from 1998 to 2007. The examination of catches, mean  $>3.25$ TL and FiB index trajectories suggest that traditional fishery resources are being over-fished. The mean trophic level of fish landed in almost all ecogeographic areas of the coast are declining by  $\sim 0.033$ - $0.400$ , in some of them with higher values than global trends. These results present evidence of the fishing down marine food webs in Galicia with a general MTL decline per decade. Overall, this paper shows that present exploitation patterns are unsustainable, a general phenomenon also detected since the last decades.