
Using fishers' echosounder buoys for scientific studies

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Abstract

Thousands of drifting Fish aggregating devices (DFADs) are world widely employed in the tropical tuna purse seiner (PS) fishery. Those devices are actively monitored by satellite linked buoys and most of them are equipped with echosounders which provides fishers with accurate geolocation information and some unbalanced biomass estimations. We believe that these instrumented buoys could be improved, in particular using knowledge on the vertical behavior of the different species found around FADs. In this work, we propose a multispecific biomass echo-integration. Using tagging and catch data, we provide estimates of aggregated biomass (in tons) by species (or groups of species, e.g. bycatch). With those improvements, echosounder buoys could be used as observatories for pelagic fish.

Keywords: Echosounder buoys, mitigation, juvenile tuna, bycatch, acoustics

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