

Seabirdstagram: the app where fishermen matter

Fisheries and seabirds have walked the road hand in hand, but since the industrialisation of fisheries their impact on seabird populations and other marine top predators has dramatically increased. Trawling fisheries make available to seabirds a huge amount of extra food in the form of discards (>7 million tonnes each year worldwide) effecting at least 143 species representing all seabird families. The benefits of discards have been recorded for several species and, when discards are available, many measures of demographic performance increase. In contrast to these positive effects from trawler discards, fisheries generate incidental seabird mortality. Bycatch is clearly among the most serious global threats for marine ecosystems, affecting not only seabirds but also a wide range of other top predators, from large fish to turtles and marine mammals. Recent bycatch estimates reported ca. 200.000 seabirds killed annually in European Union (EU) waters; however there is an urgent need to go beyond these rough counts to rigorously quantify the effects of bycatch on most seabird species, and especially to quantify actual mortality rates and their impact on viability of vulnerable seabird populations. However bycatch occurs at sea, hindering researcher's access to these events, thus we design Seabirdstagram to involve fishermen and facilitate the transfer of information on bycatch events.

Seabirdstagram is a free mobile App tool that allows registering and sending information on bycatch. The app allows people to take a picture of the bycatch event, and information is sent automatically to researchers, registering date and localization of the event. User would

also report some useful information for researchers as the fisher gears used or the ringing code of the animal, in case it was marked. This app it was intended primarily for fishermen, both professional and recreational, at the Mediterranean Sea, but can be used for anyone interested in, even outside the Mediterranean. With this tool we want that fishermen get voluntarily involved in a project for a better knowledge and Conservation of the Seas.

Seabirdstagram is now available for ANDROID in Google Play and soon it will be available in App Store for iOS. Download links can be found here

<http://www.seabirdstagram.blogspot.com.es/>

This Project is led by the Population Ecology Group at IMEDEA (CSIC-UIB) (<http://www.imedea.uib-csic.es/bc/ecopob/>) and partially funded by Fundación Biodiversidad (MAGRAMA) with the project "Impact of mortality by fishing gear in the population viability of some threatened seabirds in the Spanish Levant". This initial project aims to rigorously quantify the threats and benefits from different types of fisheries on vulnerable seabirds, focused on four endemic Mediterranean species that exploit fishing discards to differing extents and that die in different types of fishing gear. The four species to be analysed are endemic of the Mediterranean region and are included in the EU Birds Directive: the Balearic shearwater, the Cory's shearwater, the Audouin's gull and the European shag. Furthermore, the Balearic shearwater is classified as critically endangered by the IUCN criterion and is one of the most endangered vertebrate species in the EU. However our aim with this app is to involve fishermen with this app to get information on these and many other species increasing thus our knowledge on bycatch phenomenon.