

# Ending with discards can speed up the mortality of endangered marine birds in the Mediterranean

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The European regulation that bans throwing discarding catches to the sea could speed up the mortality of endangered marine birds in the Mediterranean.

The accidental catch of marine birds by long liners can skyrocket, at least in the short run, with the prohibition of discarding catches, set by the European Union, according to an article published in the journal *Scientific Reports* by a team led by Professor Jacob González-Solís, from the Department of Evolutionary Biology, Ecology and Environmental Sciences and the Biodiversity Research Institute of the University of Barcelona (IRBio).

This study, which analyzes interaction between the populations of Cory's shearwater (*Calonectris diomedea*) and the long liners in Catalonia and the Balearic Islands, is also signed by the experts Andrea Soriano-Redondo, Verónica Cortés, José Manuel Reyes-González and Santi Guallar (University of Barcelona and IRBio), together with Juan Bécares, Bencharo Rodríguez and Pep Arcos, from SEO/BirdLife.

## **More than 500 birds die every year due to Mediterranean long liners**

Longlining is a fishing art that consists of a long pole line –with thousands of hooks- which is thrown from the boat to the sea. Each year, this type of fishing causes the [accidental death](#) of at least 5000 birds in the Mediterranean, according to data from the Food and Agriculture Organization of the United Nations (FAO). At a global scale, these incidents with long liners are the cause of the death of an amount between 160.000 and 300.000 [marine birds](#), and represent one of the biggest threats for lots of species in this group.

## **The end of discards... and marine birds?**

Before going back to the harbor, fishermen throw [fish](#) with no trade value to the sea (or the ones that are not legally big enough). Lots of seabird species follow the route of these fishermen to feed from the discards that are thrown back to the sea. The future European regulation wants to force fishing boats to come back to the harbor every day and stop throwing these discards for good, even if they don't have commercial value.

The study combines different sources of information to understand the interaction between marine birds, trawling boats (which provide discards as easy food to birds) and long liners, (which cause the accidental death

for marine birds). To do so, they will use data on monitoring with GPS devices for Cory's shearwater and warnings from fishermen when they catch the birds accidentally.

"Our study shows that with the lack of trawling boats –the ones that produce more discards- marine birds opt for feeding from long liner baits, so the risk of being stuck in the hook and dying is higher. From the moment the European regulation is set as mandatory, fishermen won't throw discards to the sea and therefore, bird mortality in long liners will skyrocket" warns González-Solís.

"Therefore, before setting this regulation that bans fishermen from throwing fishing discards, it is absolutely essential and urgent to set up appropriate correcting measures in long liners so that they prevent birds from getting stuck on hooks and die".

The removal of discards is one of the spear points of the new common fisheries policy (CFP), approved in 2013. With this, it is expected to reduce the pressure on fishing resources and ecosystems, but in order to reach this goal it is necessary to work through the reduction of fishing effort and the improvement of the selection of fishing arts. "If reducing discards is limited to bringing ashore the fish that used to be thrown back to the sea, creating new markets for these, we won't fulfill that aim" says Pep Arcos, head of the Marine Program for SEO/BirdLife.

However, the CFP thought of measures to tackle the problem of the accidental catches, improving protocols of fishing data collection –for example, identifying how and where the accidental catches happen, among other factors to be controlled- and applying measures of mitigation when necessary. "The study we published shows another factor to bear in mind when applying these measures, urgently", says Pep Arcos. "To get satisfying results, it is essential having the cooperation of fishermen, for whom bird captures are also a problem: a nuisance and

waste of material".

## **Protecting endangered birds in the Balearic Islands**

The Balearic Islands are one of the most important breeding areas for little shearwaters, and especially for the Balearic Shearwater (*Puffinus mauretanicus*), a species that leads the list of most endangered birds in Europe. Little Shearwaters easily fly hundreds of kilometers, and the ones that breed in the Balearic Islands frequently visit the Catalan and Valencian coasts to get fed. For this reason, they are at risk of getting stuck and die in any long liner that goes around the Catalan, Valencian and Balearic coastline.

As González-Solís says, "a recent demographical study linked the low survival of Balearic little shearwaters to the impact of accidental capturing in fishing arts, as in long liners. If there is not an urgent solution, these species which only breeds in the Balearic Islands will disappear in a few decades".

## **For a sustainable fishing line in the Mediterranean**

Accidental catches of marine birds have been removed in other areas of the planet –for example, in the marine area under the influence of the Antarctic Treaty in the Austral Ocean- thanks to the application of correction measures in long liners.

With the support of the Fundación Biodiversidad and fishermen's associations, and the collaboration of SEO/BirdLife and BirdLife International, this team of experts of the University of Barcelona has been presenting for many years a series of research lines to understand the problem with accidental catches of marine birds in the Mediterranean and to find solutions for this problem. To do so they are

studying the efficacy of several mitigation measures adapted to the demersal fishing line float that works in Mediterranean coastlines.

In particular, Jacob González-Solís and Verónica Cortés (UB-IRBio) are the authors of *Manual de buenas prácticas en la pesca de palangre de fondo* (Manual of good practices in longline fishing, 2015), a report that gathers the best techniques to avoid accidental catches of marine birds by long liners in the Mediterranean, such as the nocturnal haul or the use of bird lines. Last September, this team organized for the first time in Europe, the sixth edition of the International Conference on Albatrosses and Petrels, in which they talked about the problem of marine bird accidental catches worldwide, and in particular, shearwaters in the Mediterranean.

**More information:** Andrea Soriano-Redondo et al. Relative abundance and distribution of fisheries influence risk of seabird bycatch, *Scientific Reports* (2016). [DOI: 10.1038/srep37373](https://doi.org/10.1038/srep37373)

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