

# How to avoid seabird bycatch in the Mediterranean

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Seabirds are the most endangered bird species in the world due to fishing practices, predation and the loss of breeding habitat. Credit: Vero Cortés, UB-IRBio

Night setting; bird scaring lines; weighted branchlines that sink rapidly; covering fish offal and bait on board so it doesn't attract seabirds to the boats; deck lights kept at the minimum level, and discards not thrown back into the sea. These are some of the best strategies to avoid seabird bycatch in longline fisheries in the Mediterranean, according to the

"Manual de buenas prácticas en la pesca de palangre de fondo," a good practice guide by Jacob González Solís and Vero Cortés, experts in the Department of Animal Biology of the University of Barcelona (UB) and the Biodiversity Research Institute (IRBio).

Seabirds are the most endangered bird species in the world due to fishing practices, predation and the loss of breeding habitat. Globally, bycatch in longline fisheries kills between 160,000 and 300,000 seabirds every year. The new good practice guide suggests several alternatives to mitigate this problem. The publication emerges from a scientific project developed by the UB, with the collaboration of SEO/BirdLife, which was funded by the Biodiversity Foundation.

## **Seabirds: great travellers threatened by longline fishing**

Longline fishing is a technique that consists of a main line, from which thousands of baited hooks are suspended, which is thrown into the water from a ship. Although it is quite selective, this fishing technique is the cause of death of different species such as turtles, sharks and seabirds. Bycatch affects several regions all over the world and endanger the conservation of many threatened species. In the Mediterranean, the problem particularly affects the Balearic Shearwater (*Puffinus mauretanicus*) —a species considered critically endangered with extinction by the International Union for Conservation of Nature (IUCN)—, the Cory's Shearwater (*Calonectris diomedea*) and the Mediterranean Shearwater (*Puffinus yelkouan*).

In one day, around one hundred seabird individuals can be captured. The expert Jacob González Solís alerts that "the shearwater is a migratory and gregarious species, with a great diving ability. The number of captivated species increases in spring and summer, when they are breeding. Many

shearwater individuals die when they have not been able to begin breeding yet." Other species, such as the Audouin's gull (*Larus audouinii*) and the yellow-legged gull (*Larus michahellis*) are also victims of seabird bycatch in longline fisheries.

## **Slight changes, great benefits**

In other world regions with high numbers of captured seabirds, vessels successfully apply some measures to mitigate this problem. In the Mediterranean, longline fishing has become a real death-trap for [seabirds](#) as a consequence of some common fishing practices: fishing at dawn when seabird interactions are most likely and intense; the longline design with attractive baited hooks, and the use of floating surfaces that maximise the time the hook is on the water surface. In the good practice guide, UB experts describe the ten most effective measures—particularly adapted to longline fisheries in the Mediterranean—in order to improve fishing practices and mitigate as much as possible seabird bycatch.

According to researcher Vero Cortés, "the solution to the problem is based on slight changes in fishing practices which mean great benefits both for seabird species and fishermen. Besides guaranteeing seabird protection, the application of mitigation measures also avoids economic loss and fishing disturbances".

## **Avoidance of seabird-vessel meetings**

Within the project funded by the Biodiversity Foundation, the UB research team identified the areas where the probability that vessels find birds looking for food is higher. They studied Cory's Shearwater movements during foraging by placing GPS devices on individuals. By combining this information with vessel location, UB experts outlined a

map of the coastal areas and the moments in which the risk of bycatch is higher.

## What must be done with seabirds captured alive?

Some birds survive bycatch. According to the good practice guide, when a seabird is captured alive, it is necessary to reduce speed or stop the vessel in order to avoid tension in the line. Then, the bird must be hauled on board, using a brail net, and it must be covered with a towel to immobilize it; after that, the hook must be removed or the line must be cut level with the mouth. If the bird is not in a good condition, it is better to keep it on board and take it to the nearest wildlife rehabilitation centre. If the bird dies, experts can use its body to get interesting scientific data.

**More information:** The Manual de buenas prácticas en la pesca de palangre de fondo is available here: [www.ub.edu/web/ub/ca/menu\\_eine...esca\\_palangre\\_UB.pdf](http://www.ub.edu/web/ub/ca/menu_eine...esca_palangre_UB.pdf)

Provided by University of Barcelona

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