

Seabirds

Seabirds are a diverse group of birds whose lives are very closely connected with the sea. They have long been used as indicators of productivity in the ocean. Scientists often look to birds as a way to help gauge the health of the marine ecosystem. Whale-watchers will look for certain small fish-eating birds in the hopes of finding feeding whales in the area. Sailors, before modern navigational tools, were known to search the skies for seabirds they knew would help them find land. Fishermen have also put to use their knowledge of seabird behavior to gain information about the occurrence of fish schools. In return, seabirds have also learned to take advantage of the fishermen's ability to group and haul fish up to the water's surface allowing for a convenient meal.

Seabirds and Fisheries

Seabirds often accompany fishing vessels as gear is being set or hauled back. Foraging birds may dive on the baited hooks of longlines taking the bait from the hook as the line is set. Hook-and-line fishermen have also reported birds attempting to "steal" fish from their hooks. Seabirds will dive on fish caught in gillnets or feed on discarded fish causing them to attend gear such as trawl nets. In the process, these feeding seabirds can become hooked or entangled in gear and be incidentally killed.

Concerns over seabird interactions with fishing gear emerged in the 1970s with reports on the incidental mortality of Thick-billed Murres in the drift gillnet fishery operated in the offshore waters of Western Greenland. Estimates of up to 500,000 birds per year triggered examination of seabird bycatch in other driftnet fisheries throughout the world's oceans. Mounting evidence of seabird as well as marine mammal mortalities in driftnet fisheries led to a ban on high seas drift gillnets through an international agreement in 1990. With this prohibition came an expansion of high seas longline fisheries and corresponding reports of high rates of incidental mortality of albatrosses and other procellariids such as petrels and shearwaters.

A study published in 1991 reported high incidental mortality of albatrosses associated with the

Japanese tuna longline fishery operating in the southern ocean. This report, estimated that 44,000 birds were caught each year and focused the attention of both conservationists and seabird scientists on the need to characterize the extent of seabird bycatch in fisheries worldwide.

Management of seabirds in the United States is under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS). To address on-going concerns about seabird interactions with marine fisheries, NOAA Fisheries works together with the USFWS as well as with regional fishery management councils. To facilitate this effort, an Interagency Seabird Working Group has been established which is comprised of representatives from NOAA Fisheries, USFWS, regional fishery management councils and coastal states. As part of the initial effort to reduce seabird interactions with fishing gear, NOAA Fisheries began implementing the *National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries* in 2001.

Although seabirds are known to interact with longline gear, virtually all types of gear when fished in areas where seabirds feed have a potential to catch birds. Along with longline gear, seabirds have been caught by gillnet, hook-and-line, trawl nets and trap/pot lines. Lost fishing gear (lines and nets) can also entangle birds.



Common Tern by Scott Landry,
Center for Coastal Studies

Some seabirds regularly pick up floating debris, including netting, found on the water's surface to use as nesting material. If a bycatch problem is identified, measures to reduce this bycatch are to be implemented.

Seabird Conservation Laws

There are two major laws that protect seabirds and require fishery management councils to address seabird conservation in their fishery management plans. One is the Endangered Species Act (ESA) of 1973, as amended, and the other is the Migratory Bird Treaty Act (MBTA) of 1918, as amended. Currently, there are two species of seabirds listed under the ESA that spend time in the South Atlantic Council's area of jurisdiction: the Bermuda petrel (*Pterodroma cahow*) and the roseate tern (*Sterna dougallii*). The MBTA protects essentially all seabirds. Under this Act, the taking, killing, possessing, transportation and importation of migratory birds, their eggs or nests are unlawful except as permitted by law. The definition of "take" under the MBTA is "to pursue, hunt, shoot, wound, kill, trap, capture or collect" or attempt to do any of the former. In a fishery context, "take" refers to birds killed or injured during fishing operations whether from gear or striking the vessel.

Though certain forms of intentional take have been legalized through hunting regulations or permit exemptions, there are currently no regulations in place to allow unintentional take. The USFWS and Department of Justice are allowed enforcement discretion, which has been used in lieu of a permitting program. Thus far, enforcement has focused on persons or operations that have taken birds with blatant disregard for the law particularly in areas where there are effective conservation measures but they are not being applied. The provisions of the MBTA apply equally to Federal and non-Federal entities except where exempted.

In an effort to further enhance the conservation of migratory birds, Executive Order 13186 - *Responsibilities of Federal Agencies To Protect Migratory Birds* was implemented in 2001. This Executive Order requires every Federal agency whose actions are likely to negatively impact migratory bird populations to enter into a Memorandum of Understanding (MOU) with the USFWS. The MOU outlines how the agency will avoid or minimize impacts to migratory birds and promotes the incorporation of migratory bird conservation into agency planning. The latter includes considering impacts on migratory birds while conducting National Environmental Policy Act analyses and reporting annually on the level of take that is occurring. NOAA Fisheries is currently drafting a MOU with the USFWS.

In addition, the Fish and Wildlife Conservation Act of 1980, as amended, requires the USFWS to monitor and assess migratory non-game birds, determine the effects of human activities and identify populations of migratory birds that, without additional conservation measures, are likely to become candidates for listing under the ESA. In response, the USFWS released a report entitled *Birds of Conservation Concern 2002*, which identifies bird species (not already listed under the ESA) that represent the USFWS's highest conservation priorities.

The USFWS has also collaborated with several other organizations to create the *North American Waterbird Conservation Plan* published in 2002. This plan identifies waterbird conservation issues and is the national plan under which framework a USFWS Southeast Regional Waterbird Plan is being drafted.

Lastly, though not included in the Act's definition of bycatch, seabirds are referenced in the guidelines to the Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended. Under National Standard 9, Councils must select measures that, to the extent practicable, minimize bycatch and bycatch mortality. In doing so, Councils should consider the effects on marine mammals and birds. In addition, both the NOAA Fisheries' National Bycatch Strategy and Strategic Plan use a broadened definition of bycatch that includes seabirds as a protected species. Examples of fishery actions taken to reduce 'bycatch' of seabirds are noted in the next section.

Conservation Measures

The overall impact fisheries have on seabird populations is not well understood. Except for a few well-studied cases, detailed information on seabird populations remains largely unavailable. Most seabirds are relatively long-lived, lay small clutches (many lay only 1 egg per year), and delay breeding until 5 or 10 years of age. Consequently, seabirds are particularly vulnerable to population declines from chronic and often subtle mortality.

Since early 1990, on-board observer programs have provided some data on incidental catch of seabirds for several fisheries though much of this effort has been focused on marine fisheries in the Pacific.



Great Black-Backed Gull by Scott Landry, Center for Coastal Studies

Gathering information on the indirect effects of fisheries such as a fishery's affect on prey species and habitat is also becoming the focus of study.

In some cases, where bycatch of seabirds is well documented, measures have been taken to reduce interactions. For example, longline fishermen in the Pacific Northwest are now using lines with streamers trailed behind the vessel to deter birds from approaching baited hooks as the line is being set. Other measures to prevent seabirds from diving on baited hooks are also being assessed. These include adding extra weight on the lines to rapidly sink the hooks out of reach of seabirds and developing ways to set lines underwater beyond the reach of seabirds. Federal and state agencies together with fishermen continue to explore new gear designs and to examine current fishing practices in an effort to develop fisheries that maintain or enhance target catch rates while minimizing the capture of non-target species including seabirds.

Developed by Margaret Murphy, South Atlantic Fishery Management Council
Margaret.Murphy@safmc.net
Ph. 843.571.4366, <http://www.safmc.net>
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If a seabird is accidentally hooked while fishing:

- DON'T CUT THE LINE
- Bring the bird in slowly
- If necessary, use a landing net to carefully lift the bird from the water.
- Grasp the bird's bill and restrain the bird with wings folded against its body.
- Wrap the bird in a towel or large cloth (be careful not to restrict the bird's breathing).
- Find the hook and push barb to outside of skin. Cut barb, then back the hook out. (Never pull a hook out without first removing the barbs.)
- Remove all fishing line. (Remember to properly dispose of fishing line.)
- If bird has swallowed the hook or is seriously injured, take it to a wildlife rehabilitation center or veterinarian.
- To release, place the bird gently in the water or on the ground near the water.
- Do not release a bird that appears weak, ill or injured.

Guidelines provided by Wildlife Rescue of the Florida Keys