

## Artisanal fishermen's perception and seabird conservation in Chilean Patagonia

The sub-Antarctic islands and fjords in southern Chile together form a complex geographic area with thousands of islands and marine channels. This region, also known as Chilean (western) Patagonia, harbours many breeding sites for seabirds. Among these are two of the most important islands, Diego Ramirez and Ildefonso, which together hold over the 20% of the global population of the Endangered Black-browed Albatross *Thalassarche melanophrys*.

Along the Chilean coast, a variety of seabird species co-occur with both industrial fishing activities in more open waters and artisanal fishing within the archipelago region. In addition, this part of Patagonia supports other productive activities, such as Salmon farming in the Chonos Archipelago (45° S).

Globally, interactions between seabirds and commercial fishing activities have been well documented but little information is available regarding the impacts of the more traditional fishing practices on seabird populations. Chilean researchers have published recently in the conservation journal *Oryx* (<http://www.oryxthejournal.org>), a study entitled: *Fishermen's perceptions of interactions between seabirds and artisanal fisheries in the Chonos archipelago, Chilean Patagonia*.

Using interviews with fishermen, questionnaires, and field-based observations the authors determined the extent to which artisanal fisheries interact with and affect seabirds in the fjords and channels of the Chonos Archipelago. This is one of the most poorly-studied regions in Chile because of its geographic isolation and extreme weather conditions.

Fishermen demonstrated a positive perception of seabirds as useful indicators of marine productivity and in their role scavenging fish waste and discards associated with fishing operations. However, fishermen also established seasonal camps to collect seabird eggs and adults for food or bait and introduced feral predators [such as domestic dogs] to islands with seabird breeding colonies.

Minimal bycatch of seabirds was recorded due to characteristics of their fishing gear, which included a fast sinking longline. As a counterpart to their negative impacts, local knowledge from fishermen on marine biodiversity is critical for the future of community-based conservation of the region's marine resources and biodiversity. Fishers also bring us a key view of past and current changes of seabirds related to fishing and beyond. They are observers of local and regional environmental changes from the impacts of an expanding and large-scale aquaculture activity on the distribution and abundance of seabirds along this part of Patagonia.

This study was supported by the Pacific Seabird Group through the Craig S. Harrison Conservation Grant and the Association of Field Ornithologists through the E. Alexander Bergstrom Memorial Research Award.

For a three-week period, their research publication (with supplementary materials) is available as online free access at: <http://dx.doi.org/10.1017/S0030605311001815>