Agreement on the Conservation of Albatrosses and Petrels

Joint Thirteenth Meeting of the Seabird Bycatch Working Group and Ninth Meeting of the Population and Conservation Status Working Group

Swakopmund, Namibia, 26 May 2026

Effect of fishing effort on the foraging behaviour of adult and immature Black-browed Albatrosses *Thalassarche melanophris*

Jesica Andrea Paz, Juan Pablo Seco Pon, Marco Favero and Sofía Copello

Instituto de Investigaciones Marinas y Costeras (IIMyC) (FECyN, UNMdP- CONICET), Argentina

A **password is required** to view the attachment

Attachment: Paz JA, Seco Pon JP, Favero M, Copello S (2026). Effect of fishing effort on the foraging behaviour of adult and immature Black-browed Albatrosses *Thalassarche melanophris*. Bird Conservation International, 36, e7, 1–10 https://doi.org/10.1017/S0959270925100257

SUMMARY

Interactions between seabirds and fisheries, such as collisions or entanglement with fishing gear and bycatch, occur in all oceans and most fisheries. These interactions primarily occur as seabirds attempt to feed on bait, resources in nets or fisheries' by-products such as discards and offal. The Black-browed Albatross Thalassarche melanophris is the most abundant albatross species on the Argentine Continental Shelf. This species is currently listed as 'Least Concern' by the International Union for Conservation of Nature (IUCN) but it is considered to be threatened in Argentina where it is known to interact significantly with diverse fisheries. Little is known about how these interactions vary with intrinsic factors such as age, a key knowledge gap. This study aimed to evaluate the effect of fishing effort by trawl and squid-jigging vessels on the foraging behaviour of adult and immature Black- browed Albatrosses wintering on the Argentine Continental Shelf. Our analysis used data from 15 satellite transmitters deployed on six adults (2011–2013) and nine immature individuals (2015). Foraging behaviour was identified using the Expectation Maximisation Binary Clustering algorithm. Generalised Linear Mixed Models (GLMMs) were fitted to determine the effect of fishing effort by different trawl and jigging fleets on the likelihood of albatrosses engaging in foraging behaviour. In both age classes, the probability of foraging behaviour was positively correlated with trawl fishing effort. For immature albatrosses, foraging behaviour was notably affected by double beam trawlers only. For adults, it was associated with fishing

effort from double beam trawlers, coastal trawlers, and high-seas ice-trawlers, although the effect was of lesser magnitude. All mentioned trawl fisheries are known to produce significant amounts of discards. Identifying these associations can help to pinpoint potential conflict areas between albatrosses and fishing activities and facilitate the planning of effective conservation measures through an ecosystem-based approach to fisheries management.

RESUMEN

Las interacciones entre aves marinas y pesquerías, como colisiones o enredos con artes de pesca y capturas incidentales, ocurren en todos los océanos y en la mayoría de las pesquerías. El albatros ceja negra (*Thalassarche melanophris*) es la especie de albatros más abundante en la plataforma continental argentina. Este estudio tuvo como objetivo evaluar el efecto del esfuerzo pesquero de los buques de arrastre y poteros en el comportamiento de forrajeo de albatros ceja negra adultos e inmaduros que invernan en la plataforma continental argentina. Nuestro análisis utilizó datos de 15 transmisores satelitales desplegados en seis adultos (2011-2013) y nueve individuos inmaduros (2015). El comportamiento de forrajeo se identificó mediante el algoritmo de agrupamiento binario de maximización de la expectativa. Se ajustaron modelos lineales mixtos generalizados (GLMM) para determinar el efecto del esfuerzo pesquero de diferentes flotas de arrastre y poteros sobre la probabilidad de comportamiento de forrajeo de los albatros. En ambas clases de edad, la probabilidad de comportamiento de forrajeo se correlacionó positivamente con el esfuerzo pesquero de arrastre. Para los albatros inmaduros, el comportamiento de forrajeo se vio notablemente afectado solo por los arrastreros congeladores tangoneros. Para los adultos, se asoció con el esfuerzo pesquero de los arrastreros congeladores tangoneros, los arrastreros fresqueros costeros y los arrastreros fresqueros de altura, aunque el efecto fue de menor magnitud. Se sabe que todas las pesquerías de arrastre mencionadas producen cantidades significativas de descartes. Identificar estas asociaciones puede ayudar a determinar posibles áreas de conflicto entre los albatros y las actividades pesqueras y facilitar la planificación de medidas de conservación efectivas a través de un enfoque de gestión pesquera basado en el ecosistema.