



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

**Unseen but not unheard: Animal-borne audio
recorders reveal missing interactions between
seabirds and untracked vessels**

***Jonathan D. Rutter, Sarah Bond, Ana P.B. Carneiro,
Aline da Silva Cerqueira, Igor Debski, Johannes H.
Fischer, Robin Freeman, Dave Goad, Louise Maurice,
Jason Moss, Oliver Padget, Olivia Rowley, Kate
Simister, Graeme Taylor, Stephen C. Votier, Katrina J.
Davis, Tim Guilford***

A password is required to view the full text document

SUMMARY

Quantifying interactions between marine megafauna and vessels is key to assessing the ecological impacts of commercial fishing and shipping. Automatic Identification Systems (AIS), by publicly tracking global vessel activities, have enabled animal-vessel interactions to be identified at scale. However, the extent of these interactions is inevitably underestimated due to “unseen” vessels – often illegal, unreported, or unregulated (IUU) – that lack or disable their AIS. Using animal-borne audio recorders on three seabird species (northern gannet, Balearic shearwater, Westland petrel), we investigated whether acoustic detection of vessel sounds could reveal a more complete picture of interactions. We found that a striking proportion of vessel audio detections (gannets >32%, estimated 57%; shearwaters >12%, estimated 20%) could not be matched with AIS-tracked vessels, suggesting substantial potential for bycatch risk from IUU fishing. By revealing otherwise unseen vessel activities, acoustic vessel detection could improve future assessments of animal-vessel interactions and IUU activities to support marine conservation.