

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p><b>Twelfth Meeting of the Seabird Bycatch Working Group</b></p> <p><i>Lima, Peru, 5 – 7 August 2024</i></p> <p><b>Seabird interactions with small-scale hook-and-line fisheries: an ecological risk assessment for the Brazilian fleets in the southwest Atlantic Ocean</b></p> <p><b><i>Gabriel Canani, Ana P.B. Carneiro, Richard A. Phillips, Dimas Gianuca, Mariana D. Alberto, Eduardo G. Pimenta, Caio A. Marques, Fernanda C.L. Valls, Tatiana S. Neves, Leandro Bugoni</i></b></p>
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### SUMMARY

Incidental mortality (bycatch) in fisheries is a major threat to marine megafauna. The southwest Atlantic Ocean is a known hotspot for resident and migratory seabirds, and also an important region for industrial and small-scale fisheries. Although they represent a major component of global fishing effort, most small-scale fisheries remain poorly monitored and regulated. Even in these data-poor scenarios, ecological risk assessment (ERA) can be used to understand species at risk and to identify priority areas for research and mitigation of impacts. We used vessel logbooks, interviews with crew and data from scientific surveys to evaluate risk to seabirds from a diverse small-scale hook-and-line fleet in south and southeast Brazil, which fishes with demersal longlines, dolphinfish *Coryphaena hippurus* surface longlines, and handlines. We mapped spatial overlap between each gear type and seabirds, and implemented an ERA, including a productivity-susceptibility analysis. Our results indicate that the Brazilian small-scale fisheries may pose a considerable threat to seabirds, including boobies, frigatebirds and threatened albatrosses and petrels from breeding populations in Brazil, Tristan da Cunha or South Georgia, especially in southwest Brazil, with very large numbers of birds potentially bycaught per year. Our study underlines that despite lack of funding and space for onboard observers, it is possible to use logbooks and interviews, combined with at-sea surveys, to evaluate risk at the species level and to identify target areas for improved management and conservation. In addition, we recommend much-improved monitoring and engagement with operators and crew in small-scale fisheries in general in order to properly manage and evaluate the risk posed to seabird populations.