

 <p data-bbox="231 533 470 571">Agreement on the Conservation of Albatrosses and Petrels</p>	<p data-bbox="512 241 1401 280"><b>Ninth Meeting of the Seabird Bycatch Working Group</b></p> <p data-bbox="847 297 1401 336"><i>Florianópolis, Brazil, 6 - 8 May 2019</i></p> <p data-bbox="520 414 1385 555"><b>Industry-based development of effective new seabird mitigation devices in the southern Australian trawl fisheries</b></p> <p data-bbox="504 584 1401 667"><b><i>Matt Koopman, Simon Boag, Geoffrey N Tuck, Russell Hudson, Ian Knuckey, Rachael Alderman</i></b></p>
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Koopman, M., Boag, S., Tuck, G.N., Hudson, R., Knuckey, I., and Alderman, R., 2018. Industry-based development of effective new seabird mitigation devices in the southern Australian trawl fisheries. *Endangered Species Research* 36: 197-211. <https://doi.org/10.3354/esr00896>.

### SUMMARY

Incidental mortality of seabirds caused by interactions with the warp wires of trawl vessels in Australia's Commonwealth-managed Southern and Eastern Scalefish and Shark Fishery has been reported by on-board observers. Seabird mortality as a result of fishery interactions is an issue of global conservation concern. This paper describes an industry-led study that developed and tested the effectiveness of 2 experimental mitigation devices for trawl vessels: a baffler and a water sprayer. These were tested against a control which was previously the only prescribed device (a warp deflector called a pinkie). Seabird interactions were observed during 69 shots comparing the sprayer against the control, and 55 shots comparing the baffler against the control. The seabird mitigation device employed alternated between the trial device (either the water sprayer or baffler) and the control device. Both experimental mitigation devices showed significant reductions in heavy interaction rates (interactions per shot) compared with the pinkie (83.7 and 58.9%). On stern trawlers, both new devices are deployed at the start of fishing and retrieved at the end of fishing operations, whereas pinkies need to be deployed and retrieved for each shot. This results in time savings and reduced risks to crew. Based on the findings from this study, the Australian Fisheries Management Authority now allows vessels to meet seabird bycatch mitigation requirements through use of either new device. The outcomes of this research and subsequent uptake of the new mitigation devices will greatly contribute to the reduction of incidental fishing mortality in Australian, and potentially other trawl fisheries.