Agreement on the Conservation of Albatrosses and Petrels

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Testing the Hookpod-mini in the New Zealand pelagic longline fishery

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SUMMARY

Hookpods are one of the hook shielding devices recognised by ACAP as a stand-alone best practice mitigation measure for pelagic longline fisheries. Following initial Hookpod trials in 2013, a new model of Hookpod, the Hookpod-mini, was developed to suit the fishing operations of the New Zealand (small vessel) pelagic longline fishery. We tested the operational and mitigation effectiveness of the Hookpod-mini relative to current fishing practices in the fleet, through depth opening trials, experimental and long-term trials during commercial fishing and collection of sink rate data.

Hookpod-mini opening depth tests and sink rates of weighted snoods indicated that Hookpod-minis provided protection to seabirds from hooks to a depth greater than that achieved through the combined use of tori lines and line weighting (both applied in accordance with ACAP best practice of either 60 g at 1 m, or 38 g at 0.5 m from the hook for line weighting and achieving 75 m of aerial extent for the tori line). Hookpod-minis had an advantage of being more consistent in achieving protection from hooks to a given depth compared to line weighting (sink rate profiles were highly variable) and tori lines (correct deployment was dependent on conditions such as wind).

Hookpod-minis were used for half the hooks set for total of 20 experimental sets on two vessels. The control gear comprised the vessels' normal setup of either unweighted snoods or snoods with 60 g sliding weights at 1 m from the hook, plus tori lines. Catch comparisons indicated no significant difference in target fish or shark bycatch between Hookpod-minis and the vessels' control gear.

A long-term skipper-collected dataset covered 10 months fishing with Hookpod-minis and the vessel's control gear (unweighted gear with tori line and night setting). Hookpod-mini loss and failure rates were well below the target 1 % per set and seabird bycatch rates were considerably lower on the Hookpod-mini snoods.

Our findings suggest that Hookpod-minis are an operationally feasible and effective seabird bycatch mitigation measure in a small vessel surface longline fishery.