

Twelfth Meeting of the Seabird Bycatch Working Group

Lima, Peru, 5 - 7 August 2024

Trialling the Hookpod-Mini during day-time setting of longlines off the coast of South Africa

Andrea Angel, Matthew Orolowitz and Reason Nyengera

A password is required to view the full text document

SUMMARY

Globally, a third of all seabird species are under threat of extinction, with approximately half of all species experiencing population declines. One of the leading causes of seabird mortality is bycatch from longline gear. The Hookpod has been designed as a stand-alone mitigation measure, eliminating the need for other measures such as night-setting or the use of a bird-scaring line. In this study we trial the Hookpod-mini (HP), for the first time in South African waters, to assess the operational efficacy and compare target catch rates between the HP and standard tuna longline gear configuration. Five trips and 24 sets were done between March and June 2023, off the coast of South Africa onboard a tuna longline vessel. A total of 38 216 hooks of which 16 927 and 21 289 were fitted with HP and Lumo leads (control) gear respectively. Overall branchlines fitted with HPs entangled significantly more than those fitted with LL which was partly attributable to turbulent sea conditions. A total of 997 fish (33 423 kg) were caught, consisting of five targeted tuna species and five non-target species. Yellowfin Tuna (Thunnus albacares), Bigeye Tuna (T. obesus) and Albacore Tuna (T. alalunga) were the three most commonly targeted species caught. The combined total catch per unit effort (CPUE) of targeted tuna species was significantly higher on LLs than on HPs, differences attributable to Yellow-fin Tuna. In contrast, no differences were found between the CPUE for non-target species. However, when separating them by species the non-target Black Marlin was caught in higher numbers on HPs compared to LLs. Results are discussed in the context of environmental conditions, gear configuration and line weighting. No seabird entanglements with gear or bycatch of seabirds were observed.