

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p>Eleventh Meeting of the Seabird Bycatch Working Group</p> <p><i>Edinburgh, United Kingdom, 15 - 17 May 2023</i></p> <p>Bird-scaring lines with weighted branch lines reduce seabird bycatch in Southeastern Atlantic longline fishery</p> <p><i>Yu-Min Yeh, Hsiang-Wen Huang, Huan-Chang Liao</i></p>
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SUMMARY

The effectiveness of the combinations of bird-scaring lines, weighted branch lines and night setting in reducing seabird bycatch was evaluated in tuna longline vessels targeting albacores in the Southeastern Atlantic Ocean. Seabird bait attack behaviours and bycatch number were examined on single/double traditional and suggested bird-scaring lines with/without weighted branch lines based on the observed data collected for 103 fishing sets from April to August 2013 during one commercial longline trip. Twenty-two species of seabirds were observed during line settings and hauling in the fishing ground ranging from 25° to 40° S and 10° W to 15° E. White-chinned petrel, spectacled petrel, cape petrel, black-browed albatross and Atlantic yellow-nosed albatross were most frequently sighted species. Overall, the rate of bird attacks on baited hooks was more than 2.2 times higher on unweighted than on weighted lines. The effectiveness of single suggested bird-scaring lines is highest (4.25 attacks per sight number per 1000 hooks), followed by double suggested bird-scaring line (4.28 attacks per sight number per 1000 hooks), double traditional bird-scaring lines (4.38 attacks per sight number per 1000 hooks), and single traditional bird-scaring line (5.14 attacks per sight number per 1000 hooks). Weighted branch lines with two suggested bird-scaring lines reduced bird attacks by a factor of 6 compared to unweighted branch lines with single traditional bird-scaring lines. The rate of seabird bycatch was more than 30 times higher during the daytime than at nighttime. We conclude that the simultaneous use of two bird-scaring lines, weighted branch lines, and night setting suggested by the international regulations effectively reduces the impact of tuna longline fishery on seabirds.