

**SUPPLEMENTAL DRAFT RECOMMENDATION BY ICCAT ON THE BY-CATCH OF SEA TURTLES
CAUGHT IN ASSOCIATION WITH ICCAT FISHERIES**

Proposal by the United States

Explanatory Note

The Commission, in *Recommendations 10-09* and *13-11*, recognized that ICCAT fisheries can adversely affect sea turtles and that there is a need to implement measures to mitigate those effects. In light of this, the Commission requested the SCRS to assess the impact of ICCAT fisheries on sea turtles and advise on approaches to mitigate such incidental captures. Paragraph 2 of Rec. 13-11 states, moreover, that “upon receipt of advice from the SCRS, the Commission shall consider additional measures to mitigate sea turtle by-catch in ICCAT fisheries.”

In response to the Commission’s request, the SCRS worked for several years to apply a robust methodology to estimate the number of sea turtle interactions with ICCAT longline fisheries and to develop advice on how to mitigate these impacts. In 2017, the SCRS estimated that tens of thousands of sea turtles are caught every year by ICCAT longline fisheries. The SCRS also acknowledged in its 2017 report that large circle hooks and whole finfish bait are proven to be effective in reducing sea turtle by-catch and may increase post-release survival.

Taking into consideration the above scientific information, and that most sea turtle by-catch occurs on shallow longline sets, the SCRS recommended that the Commission consider adopting for longline fisheries targeting swordfish and sharks at least one of the following mitigation measures to reduce sea turtle interactions and by-catch: (1) use of large circle hooks; (2) use of finfish bait; (3) other measures considered effective by the SCRS. Notably, the independent Panel that conducted the Second ICCAT Performance Review supported previous SCRS advice that the Commission adopt measures on the use of circle hooks to mitigate sea turtle by-catch, which would also have the effect of reducing mortality of released blue marlin and white marlin, ICCAT stocks that are overfished.

Some concern has been expressed that circle hooks may increase shark catch rates. Studies have shown, however, that while circle hooks may increase catch rates of some sharks, using circle hooks rather than J-hooks can, in fact, reduce mortality of sharks at the vessel. Results of a meta-analysis on the effects of circle hooks on sharks indicated that the use of circle hooks on longlines revealed varied results; overall it showed that use of circle hooks does not have a statistically significant effect on shark catch rates, while it does have a significant effect on reducing at-vessel mortality of all shark species combined (including blue and shortfin mako sharks) compared to J-hooks. Most studies included in the review found that a higher percentage of sharks are hooked externally (i.e., in the mouth or jaw) on circle hooks as opposed to J-hooks, which usually lodge internally (i.e., in the throat, esophagus, or gut), leading to higher survival when circle hooks are used.¹

In summary, the Commission has been provided with information that illustrates the extent of the bycatch of sea turtles in ICCAT longline fisheries. The Commission asked the SCRS to provide more information on this matter as early as 2010, and that scientific advice is now available along with advice on how to help mitigate these impacts. In response to this advice from the SCRS, the Commission should take immediate action on this matter.

¹ Godin, A.C., J.K. Carlson, and V. Burgener. 2012. The effect of circle hooks on shark catchability and at-vessel mortality rates in longlines fisheries. *Bulletin of Marine Science* 88(3):469-483.