SBWG-2 Doc 16
Agenda Item No 6

Agreement on the Conservation of Albatrosses and Petrels

Second Meeting of Seabird Bycatch Working Group

Hermanus, South Africa, 17 – 18 August 2008

ACAP Observer Report – IOTC EBWP 2007

Author: SBWG Convenor

ACAP Observer Report – 3rd Meeting of the Working Party on Ecosystems & Bycatch

Meeting Title: 3rd Meeting of the Working Party on Ecosystems & Bycatch (WPEB)

Meeting Organisation: Indian Ocean Tuna Commission

Date and Location: 11 – 13 July, 2007 Victoria, Seychelles

Website Address: **http://www.iotc.org/**

Your Name/Affiliation: Barry Baker, ACAP Interim Secretariat

Capacity of Attendance: ACAP representative

Relevant Paper(s) Tabled:

IOTC-2007- WPEB-21. Coordination of mitigation research: report of the first meeting of the seabird bycatch working group, Agreement on the Conservation of Albatrosses and Petrels

Working Papers (list includes papers on shark and turtle bycatch. Relevant seabird papers are underlined)

IOTC-2007-WPEB-03. Incidental and bycatches of sharks and turtles in the Reunion Island swordfish longline fishery in the Indian Ocean (1994-2000)

IOTC-2007-WPEB-05. Catch and distribution of bycatch species and discards from Spanish tropical purseseine fishery

IOTC-2007-WPEB-13-rev1. By-catch of sharks and incidental catches of sea turtle in the long line fishery of Indian waters as observed during tuna resources survey

IOTC-2007-WPEB-18. Development of mitigation measures to reduce seabird mortality in pelagic longline fisheries

IOTC-2007-WPEB-20. Seabird and turtle bycatch in the South African pelagic longline fishery.

IOTC-2007- WPEB-22. Analysis of albatross and petrel distribution and overlap with longline fishing effort within the IOTC Area: results from the Global Procellariiform Tracking Database

Background Documents

Information Papers

National Reports

Author(s) and/or Presenter if Different:

All of the above papers were presented by the respective delegations.

Summary of Content:

IOTC-2007-WPEB-03. Incidental and bycatches of sharks and turtles in the Reunion Island swordfish longline fishery in the Indian Ocean (1994-2000)
5885 longline sets collected in the Reunion swordfish longline fishery were examined to quantify the catches of five major shark species caught by the domestic fleet between 1997 and 2000: Blue shark was dominant in the catch with an average of 180 t per year between 1997 and 2000; this represented between 75% and 88% of the total catch of sharks. Results using hook-timers indicated that 52 % of the blue shark and 59 % of the oceanic whitetip shark were retrieved dead and around 50% died within 6 to 8 hours after being hooked.
During 1996 and 2000, the fishery recorded 97 interactions with turtles: 51 with leatherback, 30 with hawksbill and 16 with green turtles. The catch status of the turtles (alive or dead) when the gear was retrieved varied depending on the species, but in most of the cases, they were released alive. This study underscores the need to conduct experiments to gain information about long-term survival of released bycatch species.

IOTC-2007-WPEB-05. Catch and distribution of bycatch species and discards from Spanish tropical purseseine fishery
This document presented results about tuna discards, and the catch and distribution of several groups of fauna species associated with free schools and floating objects. Between 2003 and 2006 a total of 61 sea turtles were caught in fishing on FADs and 2 sea turtles were caught during fishing on free schools.

IOTC-2007-WPEB-13-rev1. By-catch of sharks and incidental catches of sea turtle in the long line fishery of Indian waters as observed during tuna resources survey
Indian long line fisheries target yellowfin and bigeye tunas. Information on the bycatch species of these fisheries was obtained from surveys carried out by the Fishery Survey of India vessels in the Indian EEZ. The major bycatch components are sharks and billfish. Turtles are encountered less frequently. This paper presents the catch details of sharks caught on the long lines operated by four survey vessels of the FSI during 2005 and 2006 in covering the Arabian Sea and the Bay of Bengal Among the bycatch of tuna fisheries sharks were found to be the major portion of the catch. The percentage of sharks in the long line fishery made up 20.83% of the total catch by number and 23.36% by weight. Incidental catches of sea turtles were also reported during the survey predominantly on the East coast

IOTC-2007-WPEB-18. Development of mitigation measures to reduce seabird mortality in pelagic longline fisheries
Fishing operations attract and provide a feeding opportunity for a range of pelagic seabird species. Their incidental mortality on these vessels has been well documented and mounting evidence suggests that this is the leading cause of observed decreases amongst albatross and petrel populations. Mitigation measures work by either keeping birds away from baited hooks (e.g. tori lines), reducing the time the hook is available to the birds (e.g. line weighting or line setting chutes), avoiding peak periods of bird foraging (e.g. night setting) or making vessels or bait less attractive to the birds. It is vital that these measures are simple, easy to implement and cost effective. This paper reviews a range of mitigation measures. Those methods tested and deemed effective include: setting lines at night; line weighting and reducing setting speeds; use of ‘Tori’ or bird-scaring lines; using frozen baits; and minimising discards (offal etc). Several methods are still under refinement, including: underwater setting chutes; underwater setting capsules; side setting; use of Fish oil; use of dyed baits; and bait casting machines. Methods tested and found ineffective included the use of live bait; and uses of water cannon. In conclusion. There is no one magic solution and a suite of measures should be used in combination to mitigate

seabird bycatch. The choice may change from fishery to fishery depending gear configuration, preferred operation and species complexes involved.

IOTC-2007-WPEB-20. Seabird and turtle bycatch in the South African pelagic longline fishery

This paper provided an update of seabird bycatch in the South African swordfish (*Xiphias gladius*) longline fishery. Data were collected by sea-fisheries observers on board pelagic longline vessels operating in the South African fishery. The information collected included seabird bycatch information (species, number and status), as well as gear (e.g. number of hooks, length of mainline etc.) and operational (time of set and position etc) information. South African vessels targeting swordfish use the American Longline system. The vessels set a total of 10.6 million hooks from 1998 to 2005, at an average of 1.3 million hooks per year. Fishing effort varies annually and by season. Effort peaked in 2002 at 2.6 million hooks; in 2005, 0.8 million hooks were set. Observer data was collected from 827 sets or 1 million hooks (10% of the total) from 1998 to 2005. Although these vessels target swordfish, they catch a combination of swordfish (22%), tunas (40%), blue sharks (24%) and Mako sharks (3%). The vessels caught seabirds at a rate of 0.22 birds/1000 hooks in the winter and 0.24 birds per 1000 hooks in the summer. White-capped albatrosses were the most commonly caught at a rate of 0.08 birds per 1000 hooks. Black-browed albatrosses and white-chinned petrels were caught at an average catch rate of 0.35 and yellow-nosed albatrosses at an average rate of 0.003 birds/1000 hooks. Although catch rates for albatrosses were the highest on the west coast, a significant number of petrels were caught on the east coast i.e. in the Indian Ocean. Catch rates were highest when sets occurred during the day and over full moon periods when they were set at night. The average catch rate was 0.2 birds per 1000 hooks during full moon compared with an average of 0.05 outside of full moon periods.

IOTC-2007- WPEB-21. Coordination of mitigation research: report of the first meeting of the seabird bycatch working group, Agreement on the Conservation of Albatrosses and Petrels

This document reported on the first meeting of the Seabird Bycatch Working Group (SBWG). This working group was formed by the Agreement on the Conservation of Albatrosses and Petrels (ACAP) to provide advice to ACAP on actions that will assist in assessment, mitigation and reduction of negative interactions between fishing operations and albatrosses and petrels. The SBWG considers that interactions with pelagic fisheries constitute the largest conservation threat to seabirds in the southern oceans, and although several seabird avoidance measures have been trialled to varying degrees, proven and accepted seabird avoidance measures require substantial improvement. The suitability of pelagic mitigation technologies for future research was assessed by assigning a priority ranking on a 5 point scale, according to criteria on potential effectiveness, practicality, and cost. Bird scaring lines, the bait setting capsule and side setting were ranked the highest priority for research. Weighted branchlines, the bait pod, smart hooks and circle hooks were high priorities; and blue dyed squid was of moderate priority. Research on technologies such as the underwater setting chute, night setting, line shooters, thawed bait, strategic offal discharge, blue-dyed fish, fish oil and bait casting machines, were considered a lower priority.

IOTC-2007- WPEB-22. Analysis of albatross and petrel distribution and overlap with longline fishing effort within the IOTC Area: results from the Global Procellariiform Tracking Database

This analysis has highlighted the importance of the IOTC area for albatross and petrel distribution, and the high degree of overlap between IOTC longline fishing effort and the distribution of albatrosses, particularly those breeding on islands in the Southern Indian Ocean. Seventeen of 18 southern hemisphere albatrosses forage in the Indian Ocean at some stage in their

life cycle. The Critically Endangered Amsterdam Albatross and Endangered Indian yellow-nosed albatross are endemic to the IOTC area, and both forage almost exclusively in the areas fished by longline IOTC fleets, close to the area of highest longline effort south of 30°S. Grey-headed, wandering and shy albatrosses also have a high degree of overlap with IOTC longline fishing effort. The addition of tracking data from other colonies of grey-headed albatross in the Indian Ocean would probably increase the overlap identified, especially with the region of high-intensity longline effort between 80 and 90°E. Non-breeding black-browed and white-capped albatrosses are caught in large numbers by longline fisheries in the region, but tracking data area lacking. Other key data gaps include tracking data for Northern and Southern giant-petrels, both of which form part of the bycatch reported for the region and have substantial breeding colonies in the Indian Ocean, as well as non-breeding data for white-chinned petrels and Indian yellow-nosed and grey-headed albatrosses.

Outcome (e.g. summary of relevant discussions, resolutions, etc):

Provision of data on bycatch. To date, the IOTC Secretariat has not received any reports from members or cooperating parties on the amounts of sea birds, sea turtles or other fauna caught incidentally by their vessels. The information that is available comes from research programmes or from other Regional Fishery Bodies, such as the CCSBT. These data refer in most cases to the catches of seabirds or other species by longline fisheries in specific areas and periods. The WPEB recalled the adoption of IOTC Resolutions intending to mitigate the catches of these species and/or promoting the collection and reporting of data and further encouraged all IOTC members and cooperating parties to increase the amount of information available in the future.

The WPEB noted that coverage by observer programmes in the Indian Ocean is currently very low which means that it is unable to provide reliable estimates of the overall total catch of non-target species. Furthermore, the IOTC Secretariat currently holds no data from any of the observer programmes operating in the Indian Ocean.

Seabird bycatch

Samantha Petersen (SP), BirdLife International, provided an update on seabird mortality in the Swordfish fishery operating off Southern Africa. No other seabird bycatch data was presented at the meeting. This provided the opportunity for some discussion regarding the swordfish exemption in resolution 06/04. It was agreed that this exemption did not reflect the available empirical evidence.

Samantha Petersen also presented a review of seabird mitigation in pelagic longline fisheries. This was followed up by my presentation on the review of mitigation undertaken by ACAP's Seabird Bycatch Working Group. I recommended that the WPEB endorse this review, and this was accepted by the WPEB.

Samantha Petersen and I also presented the 'two mitigation method' approach adopted by the IATTC and WCPFC, and recommended that the WPEB endorse such an approach. This recommendation was accepted, and will be put forward to the Scientific Council and Commission for endorsement.

Highlights from the meeting were the WPEB endorsement of the following (regarding seabirds):
1) The swordfish exemption should be removed from resolution 06/04
2) The two method approach adopted by the IATTC and WCPFC was endorsed

3) The mitigation table endorsed developed by ACAPs SBWP was endorsed as the current best available advice on seabird mitigation.

Recommended Actions for ACAP:

Further involvement in the work of the IOTC is recommended. ACAP certainly has a good relationship with the Secretariat and members of the Working Party and it would be productive to build on this to enhance the work of the Agreement.

Have relevant papers been forwarded to Secretariat: Yes

Electronic copies of the meeting documents are held by the Secretariat.