Appendice 9

REPORT OF THE SUB-COMMITTEE ON ECOSYSTEMS

An Inter-sessional Meeting of the Sub-Committee on Ecosystems was held at the Real Marina Hotel and Spa in Olhão, Portugal, 1-5 September 2014. *The Instituto Portugues do Mare e da Atmosfera* (IPMA) graciously hosted the meeting. Participation at this meeting eclipsed what has been witnessed in the past four years and consequently the body of expertise available to address the work of the Sub-Committee resulted in very fruitful discussions for both the by-catch and ecosystems components of the meeting. During this meeting, the Sub-Committee discussed the following:

Tasks pertaining to by-catch:

1. Review the inputs to the ERA, ensuring the best possible information
2. Review the suggestions made in Section 9.3 and 9.4 of the 2013 Sub-Committee on Ecosystems Report and incorporate these improvements where possible/relevant.
3. Provide revised advice based on the updated ERA.
4. Review seabird by-catch mitigation measures as described in Rec. 11-09.
5. Review observer data reporting forms.

Discussion

New productivity information for sea turtles was provided by several CPCs to improve the Sea Turtle Ecological Risk Assessment (ERA). In addition, the Sub-Committee was made aware of detailed nesting data provided by the International Convention for the Protection and Conservation of Sea Turtles (IAC). We acknowledged the usefulness of this information, and thanked the IAC for their generous collaboration. With regard to the susceptibility of sea turtles to ICCAT fisheries, the Sub-Committee reviewed four SCRS documents, one peer-reviewed publication and a presentation from the Trans-Atlantic Leatherback Conservation Initiative (TALCIN).

The Sub-Committee also briefly reviewed the information compiled and/or provided by CPCs and contractors since our efforts to assess the impact of ICCAT fisheries on sea turtles began in 2012. Since that time, numerous contributions pertaining to by-catch rates, total by-catch, by-catch mitigation, productivity and susceptibility of sea turtles have been provided. In addition, three comprehensive review documents were prepared as a result of the short-term contract awarded to Rui Coelho. The Sub-Committee also discussed the preliminary ICCAT Sea Turtle ERA that was contracted and delivered in 2013. Unfortunately, the scope of that contract did not permit extensive revisions to the ERA, and the SCRS decided that the results were insufficient to inform the Commission at that time. As a whole this body of work represents a significant contribution to the Sub-committee's effort to assess the impact of ICCAT fisheries on sea turtles. After reviewing the available data and ancillary information, the Sub-Committee agreed that at this time, there was insufficient information to improve the sea turtle ERA developed in 2013. However, the Sub-Committee did agree on a plan to continue to assess the impact of ICCAT fisheries on sea turtles pursuant to [Rec. 10-09]. This plan is discussed in detail in the 2014 Report of the Sub-Committee on Ecosystems.

With regard to seabird bycatch mitigation, the Sub-Committee reviewed one SCRS document and a peer-reviewed document. The Sub-Committee also noted that paragraph 8 of Rec 11-09 requires the SCRS to conduct a review in 2015 of the efficacy of Rec 11-09, and agreed upon a work plan that should be initiated in 2015. This work plan is further described in the 2014 Report of the Sub-Committee on Ecosystems.

Finally, the Sub-Committee agreed upon a set of forms that could be required to report data from the various national observer programs. The Sub-Committee agreed to present these forms to the SCRS for adoption. Once the forms are formally approved, the Sub-Committee strongly recommended that CPCs use these forms to report both current and historical observer data.

Tasks pertaining to ecosystems:

1. Assess the importance of the Sargasso Sea ecosystem to ICCAT species as per Resolution 12-12.
2. Review the progress that has been made in implementing ecosystem approaches in enhanced stock assessments (e.g. multispecies models) or EBFM.
3. Explore environmental factors that affect the global distribution of highly migratory fish and their productivity.

Discussion

The subcommittee reviewed 2 papers speaking to the issue of the importance of the Sargasso Sea ecosystem for ICCAT managed species and related species as per Resolution 12-12. These papers defined both the dependencies of ICCAT species on the ecosystem and their trophic status, as well as contrasted the historical catches within the Sargasso Sea against the total. The subcommittee recognized the value of the information contributed to date but also identified topics towards which future study should be directed.

In reviewing the progress that has been made globally in implementing ecosystem based fisheries management, the subcommittee was presented with an update on the integrated ecological assessment of the Gulf of Mexico ecosystem. Through the experiences of this group, it was recognized that implementation of a management system is facilitated by marrying clear management objectives for elements of an ecosystem with indicators that reflect the state of the system as well as the pressures on it. This philosophy is consistent with that of the subcommittee which has indicated in past sessions the need for clear management objectives from the Commission in order to advance the implementation of the EBFM approach. In order to expedite the process, the subcommittee developed management objectives for four basic elements that ICCAT would have the capacity to manage and it was proposed that they be vetted at the next annual meeting of the Standing Work Group for the dialogue between Science and Managers in 2015.

The impact of environmental factors on the distribution of highly migratory species was demonstrated to the subcommittee through the association between the phases of the Atlantic Multi-decadal Oscillation and the trajectory of relative abundance indices of North Atlantic Swordfish. This analysis stressed the importance of involving environmental variables in the assessments when appropriate and the need to be able to organize the data by geographic area rather than flag.