

INTERNATIONAL TECHNICAL EXPERT WORKSHOP ON MARINE TURTLE BYCATCH IN LONGLINE FISHERIES

Seattle, Washington, USA
11-13 February 2003

EXECUTIVE SUMMARY

Participants from nineteen countries and four inter-governmental organizations (Food and Agriculture Organization of the United Nations - FAO, Inter-American Tropical Tuna Commission - IATTC, Convention on Migratory Species – CMS, Secretariat of the Pacific Community - SPC) participated at the International Technical Expert Workshop on Marine Turtle Bycatch in Longline Fisheries convened 11-13 February 2003 at Seattle, Washington, USA. Participants included individuals from government agencies, non-governmental and private organizations, industry, and academia.

Marine turtles are a global resource and their populations are impacted by numerous anthropogenic activities including degradation of nesting and foraging habitats, illegal poaching, overharvest of eggs, and incidental capture in commercial and artisanal fisheries. It is widely recognized that fisheries interactions comprise a significant threat to sea turtle populations. Among fisheries that incidentally capture sea turtles, certain types of trawl, gillnet, and longline fisheries generally pose the greatest threat. This Workshop focused on incidental capture of sea turtles in longline fisheries. The goal was to bring together academic, technical, and scientific expertise to discuss, develop and recommend actions to address global incidental capture in longline fisheries with the hope that implementation of these actions, where applicable, might reduce this particular threat.

The reduction of sea turtle bycatch in longline fisheries is one of many initiatives undertaken within the context of efforts to promote sustainable fisheries. Reducing waste, discards, bycatch, excess fishing capacity and eliminating illegal, unregulated, and unreported fishing are examples of the types of initiatives that contribute to a common goal as the international community seeks to improve and strengthen the regimes which govern sustainable use of global fisheries resources. Along with current conservation efforts to address other threats, these actions will contribute to global sea turtle conservation and recovery.

The Workshop objectives were: (1) to evaluate existing information on turtle bycatch in longline fisheries; (2) to facilitate and standardize collection of data from longline fisheries that are likely to interact with marine turtles; (3) to exchange information on experimentation with longline gear relative to turtles and target species; (4) to identify and consider solutions to reduce turtle bycatch in longline fisheries; and (5) to exchange information and gain a comprehensive understanding of the fishing methodologies and operations of global longline fleets.

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Six overarching strategies were identified as key elements to address sea turtle bycatch in longline fisheries. These strategies are:

1. Improved data collection and monitoring
2. Regulatory approaches to fishery management
3. Incentives to participate in the development and implementation of bycatch reduction measures.
4. Modifications of gear and fishing practices.
5. Modifying, developing, and implementing multi-lateral agreements.
6. Training, outreach, and capacity building.

Specific actions were identified to implement each of these strategies taking into account the following: local, regional, and global scales; differences between developed and developing nations; differences in the biology and vulnerability of sea turtle species and stocks; and differences in the characteristics of longline fisheries. Because of the urgency of the sea turtle bycatch issue, both immediate and long-term actions were considered. Workshop participants prioritized actions to implement the six identified strategies outlined on the following pages.

The six highest-ranking actions overall are:

- Develop new approaches to time-area closures using real-time spatial management applied to all fleets to reduce marine turtle-longline fisheries interactions;
- Request that FAO convene an intergovernmental technical consultation to address the issue of marine turtle bycatch in longline fisheries;
- Encourage rapid deployment and implementation of gear and fishing practices that have shown promise for reducing marine turtle bycatch in shallow swordfish fisheries;
- Direct additional and immediate marine turtle bycatch reduction research in the major ocean basins to fine tune recent finding, taking into account differences among species;
- Involve industry in discussions regarding bycatch reduction strategies as early as possible;
- Identify and secure funding to accomplish these actions.

Taken together these actions constitute an initial policy approach for immediate action given the urgency of the need to reduce marine turtle bycatch and mortality in longline fisheries.

Strategy 1: IMPROVED DATA COLLECTION AND MONITORING

Highest Priority Actions:

- Identify and secure adequate funding to accomplish these actions.
- Collect information on sea turtle species and populations with regard to foraging and diving behavior, and distribution / movement patterns.
- Identify a coordinator and convene a technical working group/forum in regard to sea turtle bycatch in longline operations (both regionally and globally).
- Establish minimum standards for data collection for observer programs.
- Characterize longline fisheries, re-analyze existing data, identify data gaps and prioritize efforts in those areas.

Priority Actions:

- Implement minimum coverage observer programs or electronic monitoring systems (EMS) on longline fishing fleets for the purpose of data collection.
- Improve national collection and where relevant reporting to Regional Fishery Management Organizations (RFMOs) of catch and bycatch data.
- Develop monitoring programs to assess the success of gear and fishing modifications (e.g., pilot/small-scale observer programs, dockside interviews).

Other Actions:

- Undertake a consultation with fishermen from all fishing nations to get their input on factors leading to turtle bycatch and hot spots.
- Improve access and reporting in logbooks or other self reporting systems of catch, bycatch and fishing gear and methodology, recognizing the level of detail required to understand and be statistically significant for the longline bycatch issue (taking into account spatial, temporal and trip by trip variability).
- Develop a website clearinghouse for information, data standards, training, research programs.
- Establish a national/international register of vessels that fish using longlines;
- Develop partnerships and data sharing agreements with other focal groups (e.g., seabirds).

Strategy 2: REGULATORY APPROACHES TO FISHERIES MANAGEMENT

Highest Priority Actions:

- Develop new approaches to time-area closures using real-time spatial management applied to all fleets (e.g., identify high densities of turtles, migratory corridors, and critical habitat including ocean areas adjacent to nesting beaches).
- Encourage the dissemination of information and the promotion of fishing activities that minimize the bycatch of turtles through RFMOs or other appropriate regional bodies.
- Promote a scheme of regulation whereby individual vessels or fleets are encouraged or rewarded for particular activities or performance standards, such as number of turtle interactions.
- Regulate for basic data collection and compliance including observer, EMS, Monitoring, Control, and Surveillance (MCS), and boarding programs.
- Enact legislation, rules, or regulations to require the minimization of marine turtle fisheries interactions based on based available research and information on gear modification.
- Require turtle handling guidelines, standards, and attendance at turtle handling workshops.

Priority Actions:

- Cap fishing effort worldwide, reduce over-capacity, and harmful subsidies by working through RFMOs and cooperative organizations, with an emphasis on areas where sea turtle bycatch is highest.
- Ensure that regulations do not hinder conservation and research efforts by, where necessary, providing exemptions for protected species handling restrictions for fishermen who are contributing to research programs.
- Recommend that, where appropriate, national regulations stipulating that J-hooks of a certain size be used for all longline fishing be reconsidered in light of experimental results to date.
- Utilize multilateral trade measures to encourage compliance with fishery management regulations relevant to sea turtle bycatch.

Other Actions:

- Make the reporting of protected species bycatch in logbooks a mandatory requirement in all countries.
- Ensure conservation laws are applied both globally and equitably.
- Implement an international real time at-sea reporting system of sea turtle sightings based on fishermen information, other vessel data, tracking information and other reports.

Strategy 3: INCENTIVES TO PARTICIPATE IN THE DEVELOPMENT AND IMPLEMENTATION OF BYCATCH REDUCTION MEASURES

Highest Priority Actions:

- Involve industry in discussions at earliest point possible.
- Develop gear exchange and training programs to encourage “turtle-friendly” fishing practices.
- Develop incentives or rewards for fishermen that participate in gear development or research programs.

Priority Actions:

- Where logistically applicable (e.g., large international fleets under RFMO regimes) reward fishers for low bycatch rates by, for example, allocating greater fishing quota, longer seasons, etc.
- Ensure that a portion of vessel licensing fees is applied to sea turtle conservation activities.
- Apply product import requirements, through relevant RFMOs, for non-compliance with agreed sea turtle conservation and management measures.

Other Actions:

- Assure anonymity for data sharing.
- Establish a competition among fishers for the development of best practices to reduce sea turtle bycatch in longline fisheries (e.g., BirdLife International model).
- Approach Marine Stewardship Council or other appropriate body about developing criteria for a dynamic certification program for the longline fishery.

Strategy 4: MODIFICATIONS TO GEAR AND FISHING TACTICS

Highest Priority Actions:

- Encourage rapid deployment and implementation of the following items that have shown promise for reducing bycatch in shallow swordfish fisheries:
 - Reduce daylight soak time for shallow set gear (has shown promise for loggerhead bycatch reduction)
 - Leaders longer than float line
 - Leaded swivels on leaders
 - Circle hooks
 - Turtle handling and gear removal (e.g., de-hookers, line cutters, etc.)
 - Mackerel baits - 500g for swordfish operations
 - Real time communication among and between fleets to avoid areas of high turtle densities.
- Direct additional and immediate research in the major ocean basins to fine tune recent findings, taking into account differences among species:
 - Effects of circle hooks on target species, i.e., improve catchability
 - Bait type and baiting techniques
 - Experiment with weighted leaders to reduce leatherback entanglement
 - Repellents – shark scent or profile
 - Branch line materials
 - Attractiveness of gear
 - Deep sets.
- Establish an international fund for longline bycatch mitigation experiments, to build on existing gear research, with an international technical group to coordinate these experiments. Included in this is addressing international funding sources to support such activities (e.g., Global Environment Fund).
- Increase research on post-hooking mortality.

Priority Actions:

- Promote sharing of information between gear engineers, gear suppliers, industry, and scientists on effectiveness of certain gear in reducing bycatch and impact on target catch levels, including results of gear experiments.
- Investigate the potential of alternative fishing methods particularly in artisanal fisheries and in coastal areas where sea turtle interactions are high.
- Develop gear modification for artisanal fisheries.
- Ensure that gear alterations intended to minimize the incidental capture of sea turtles do not have a detrimental impact on other non-target species.

Other Actions:

- Export trials/experiments to tuna and other target longline fisheries that use the “Japanese circle” hook and other hook variations.
- Communicate results of the Azores and U.S. Northeast Distant experiments to other regions via RFMOs.

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- Coordinate networks for discussion of bycatch gear modification efforts.
- Ensure that bycatch reduction research evaluates target species catch rates.
- Foster a global environment where experimental fisheries can continue.
- Compare target and bycatch rates from various fisheries, including temporal and spatial variations.

Strategy 5: MODIFYING, DEVELOPING, AND IMPLEMENTING MULTI-LATERAL AGREEMENTS

Highest Priority Actions:

- Request that FAO convene an inter-governmental technical consultation to address marine turtle bycatch in longline fisheries, to consider the potential utility of an International Plan of Action (IPOA), and to call for submission and collection of data relevant to the longline sea turtle bycatch problem.
- Work through established RFMOs to promote marine turtle conservation (including, but not limited, to General Fisheries Commission for the Mediterranean - GFCM, International Commission for the Conservation of Atlantic Tunas - ICCAT, Indian Ocean Tuna Commission - IOTC, Inter-American Tropical Tuna Commission - IATTC, Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean - MHLG, Northwest Atlantic Fisheries Organization - NAFO).
- Continue efforts to address Illegal, Unregulated, and Unreported (IUU) fishing;
- Ensure regional and international agreements recognize non-target species.
- Integrate actions to reduce longline turtle bycatch into existing management bodies and multi-lateral agreements.
- Encourage countries to modify national reporting standards and/or enter into international data collection agreements.

Priority Actions:

- Develop a standing committee/taskforce (with coordinator) including participants from this group to continue momentum and ensure continuity into the future.
- Encourage all States/entities to sign or ratify relevant international agreements such as the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, U.N. Convention on the Law of the Sea/Fish Stocks Agreement, CMS, and the Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC).
- Encourage both national and international authorities with responsibility for fisheries management and sea turtle conservation to coordinate with regard to the issue of sea turtle longline bycatch.
- Introduce specific ideas from this meeting into regional sea turtle conservation plans (i.e., IAC, Memorandum of Understanding (MoU) on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia - IOSEA, West African Memorandum of Understanding Concerning Conservation Measures for Marine Turtles, and Comisión Permanente del Pacífico Sur - CPPS).
- Ensure that special attention is given to developing countries when new agreements are negotiated.
- Introduce language on the incidental capture of sea turtles in fishing gear into a U.N. General Assembly resolution.

Other Actions:

- Use extant conservation agreements to create linkages between relevant sea turtle agreements (e.g., IOSEA MoU, West African MoU, IAC, and MoU on ASEAN (Association on Southeast Asian Nations) Sea Turtle Conservation and Protection) and other agreements that pertain to sea turtles (e.g., South Pacific Regional Environment Programme (SPREP), Barcelona Convention, and Bern Convention).
- Maintain existing momentum on the issue of sea turtle longline bycatch and maintain/expand existing networks including those established at this and previous meetings, such as the Marine Turtle Specialist Group (MTSG).
- Investigate a legal framework for bycatch reduction on the high seas.
- Actively engage fishing industry organizations in development of cooperative agreements (i.e., International Coalition of Fishing Organizations).
- Request that the IAC require reporting on bycatch from all fisheries.
- Free trade agreements should promote independent “turtle-safe” certification programs.
- Ensure that international agreements fulfill their mandates and that necessary resources are available.
- Identify a successful agreement/framework/model to base future agreements.

Strategy 6: TRAINING, OUTREACH, AND CAPACITY BUILDING

Highest Priority Actions:

- Provide necessary gear (e.g., de-hooking devices) to industry, and/or information on how fishermen can obtain gear and handling guidelines.
- Develop outreach materials for different regions, in multiple languages, for public, industry, and government officials:
 - Integrate longline issues in overall sea turtle conservation materials
 - Increase awareness of bycatch in general
 - Identify actions that can be taken (e.g., mitigation strategies and handling techniques
 - Incorporate public relations expertise, perhaps from non-governmental organizations (NGOs).
- Conduct workshops to train observers and fishers on proper turtle handling and release methods.
- Support developing countries by providing technical expertise, training opportunities, and financial assistance (including assistance funds from developed countries, e.g., Australian Government Overseas Aid Program - AusAID, Canadian International Development Agency - CIDA, Danish Cooperative for Environment and Development – DANCED) to implement sea turtle mitigation measures.
- Develop training/information kits to explain problems, solutions, and best practices that are tailored to appropriate audiences and updated with new information as it becomes available (consider providing on CD-ROM for ease of distribution).

Priority Actions:

- Promote cooperative research programs and scholarships for bycatch reduction research.
- Establish a training task force to target industry trade shows (e.g., Spain spring 2003, China fall 2003, FishExpo in Seattle each year) to disseminate information and to visit countries and establish in-country capacity to train and disseminate information to fisheries and resource managers and industry.
- Develop a website to provide information and results on bycatch reduction research, successful fishery management models for developing countries, and protocols for observer programs.
- Convene subsequent meetings of the International Fishers Forum (IFF) and expand participation to all ocean basins.
- Request all relevant international fisheries and conservation bodies to elevate the profile of the importance of the problem of sea turtle longline bycatch.
- Involve the range of gear manufacturers in gear modification research and development (and in the dissemination of information).
- Build national scientific capacity (e.g., graduate students, future leaders, NGOs);
- Provide information to industry, vessel owners, and import/export companies about the need and economic advantage of addressing longline sea turtle bycatch.

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- Introduce sea turtle conservation and bycatch issues in fisher courses.

Other Actions:

- Communicate handling protocols and results of bycatch experiments in various forums (e.g., Marine Turtle Newsletter, CTURTLE listserv, Annual Sea Turtle Symposium).
- Use port visits as a means of data collection, training, and outreach with fishers.
- Develop “lobbying” documents for national and international programs for decision makers and general public.
- Encourage and publicize the utility of rescue centers and stranding networks.
- Build capacity for development of legal frameworks to address sea turtle bycatch.
- Highlight the important role NGOs play with respect to outreach and funding.
- Promote interagency communication within governments.
- Introduce the problem of marine turtle bycatch to NGOs that are not currently engaged in this issue.