

# INTER-AMERICAN TROPICAL TUNA COMMISSION

## WORKING GROUP ON BYCATCH

### MINUTES OF THE 4<sup>TH</sup> MEETING

Kobe (Japan)  
14-16 January 2004

#### AGENDA

1. Opening of the meeting
2. Election of Chairman
3. Adoption of the agenda
4. Review of available information on the current status of sea turtle conservation
5. Review by staff of information on sea turtle interactions with tuna fisheries and other impacts on turtle populations
6. Additional information by members on interactions
7. Short-term conservation measures for sea turtles:
  - (a) release and safe handling
    - (i) purse-seine
    - (ii) longline
    - (iii) other fisheries
  - (b) improved fishing gear and techniques
    - (i) purse-seine
    - (ii) longline
    - (iii) other fisheries
8. Longer-term measures for sea turtle conservation - development of a 3 year program
9. Handling of shark bycatch in the purse-seine fishery
10. Recommendations to the Commission
11. Other business
12. Adjournment

#### DOCUMENTS

<a href="#"><u>BYC-4-04</u></a>	Review of the status of sea turtle stocks in the eastern Pacific
<a href="#"><u>BYC-4-05a</u></a>	Interactions in the purse-seine fishery
<a href="#"><u>BYC-4-05b</u></a>	Interactions in the longline fisheries
<a href="#"><u>BYC-4-08</u></a>	Proposed amendments to the consolidated resolution on bycatch ( <a href="#"><u>C-03-08</u></a> )
<a href="#"><u>BYC-4-09</u></a>	Handling of sharks caught by the tuna purse-seine fleet

#### APPENDICES

1. List of attendees
2. Statement of intent regarding fisheries bycatch of marine turtles in the eastern Pacific Ocean
3. Recommendation regarding the consolidated resolution on bycatch (C-03-08)
4. Recommendation regarding a three-year program to improve sea turtle conservation
5. United States proposal for a program for information and education on bycatch

The 4<sup>th</sup> Meeting of the IATTC Working Group on Bycatch was held in Kobe (Japan) on January 14-16, 2004. The attendees are listed in Appendix 1. A statement was received from the Central American member countries that were unable to attend the meeting, expressing support for the aims of the Working Group (Appendix 2).

## **1. Opening of the meeting**

The Director of the Commission, Dr. Robin Allen, opened the meeting.

## **2. Election of Chairman**

Mr. Masanori Miyahara, of Japan, was elected to chair the meeting.

## **3. Adoption of the agenda**

The provisional agenda was approved with a change in the order of items 7 and 8. The United States requested that seabird bycatch be discussed under Item 11, *Other business*, and this was agreed.

## **4. Review of available information on the current status of sea turtle conservation**

Dr. Martín Hall, of the IATTC staff, presented [Document BYC-4-04](#), and provided additional material concerning the status and distribution of sea turtles. A compact disc with detailed information on the status of sea turtles and related information was made available to the attendees.

Dr. Peter Dutton, of the United States, summarized the conclusions of the meeting on the conservation of Pacific sea turtles held in November 2003 in Bellagio (Italy), and went on to provide a description of the status and stock structure of some of the species of sea turtles involved in the tuna fisheries in the Pacific Ocean.

## **5. Review by staff of information on sea turtle interactions with tuna fisheries and other impacts on turtle populations**

Dr. Hall presented Documents [BYC-4-05a](#) and [BYC-4-05b](#).

## **6. Additional information by members on interactions**

Dr. Hideki Nakano, of Japan, presented information on studies of sea turtles conservation and bycatch mitigation carried out in Japan. In answer to a question about the availability of any general information about estimates of mortality, Japan said that the data from its longline fisheries in the eastern Pacific in 2000 indicated that 166 leatherback turtles were incidentally caught, of which 25 were dead, and about 6,000 turtles of all other species, mostly olive ridley turtles, of which about half were dead.

Mr. Charles Bergmann, of the United States, made a presentation on research to mitigate turtle bycatch in longline fisheries in the Atlantic Ocean. A video produced by the U.S. National Oceanographic and Atmospheric Agency on the safe handling and release of sea turtles was shown.

Dr. George Balasz, of the United States, presented information on modelling of mortality of sea turtles in the fishery, and on satellite tracking of sea turtles in the western Pacific Ocean.

The meeting noted that all investigations that compared the performance of circle hooks to that of traditional and alternative designs found that the use of circle hooks reduced the mortality of sea turtles significantly, whereas it did not reduce the catches of target species in most cases.

Ing. Luis Torres, of Ecuador, made a presentation on a series of seminars held in October 2003 in various ports in Ecuador to educate fishermen on matters related to bycatches of sea turtles in local fisheries, and described research in progress.

Dr. Pedro Ulloa, of Mexico, made a presentation on bycatches of sea turtles in the Mexican longline fishery and efforts by Mexico to conserve sea turtles.

Mr. Katsuma Hanafusa, of Japan, explained the workings of a mechanical observation system, using digital cameras and computers, to record the catches of longline vessels automatically.

## **7. Short-term conservation measures for sea turtles:**

Dr. Allen presented the staff's recommendations for short-term conservation measures outlined in Documents [BYC-4-05a](#), [BYC-4-05b](#), and [BYC-4-08](#). During the ensuing discussion, the delegations made clear their support for the current programs to protect sea turtles involved in the purse-seine fishery, and their satisfaction that the Commission's program has been successful in reducing the mortality of these animals.

### **a. Purse-seine**

With respect to the proposal in Document [BYC-4-08](#) to amend the [\*Resolution on Bycatch\*](#) to require fishermen on purse-seine vessels to release all sea turtles entangled in Fish-Aggregating Devices (FADs), the meeting decided that the existing measure in the resolution encouraging fishermen to release entangled sea turtles was having a positive impact, and it was therefore not necessary to make this amendment.

With respect to the second proposal in that document, to amend the [\*Resolution on Bycatch\*](#) to "prohibit (i) the use of nets, webbing, or similar materials which could entangle sea turtles, in the construction of any FAD deployed in the eastern Pacific Ocean, and (ii) the attachment of any such materials to a FAD," the meeting concluded that there was insufficient evidence demonstrating the efficacy of existing alternatives to webbing for attracting fish, and decided not to recommend the proposal to the Commission. However, the Working Group recognized the importance of the matter, and encouraged the participants and the staff to further study alternatives that would be less likely to harm sea turtles. Several delegations stated that they were ready to undertake such studies.

### **b. Longline**

The Working Group discussed a proposal by Japan to amend the [\*Resolution on Bycatch\*](#), directed mainly at strengthening those elements dealing with the longline fishery. After extensive discussion, the meeting agreed on an amended version of this proposal for presentation to the the Commission at its next meeting (Appendix 3).

Brackets were inserted around paragraphs 2, 3.a and 3.b of Resolution C-03-08, because the Working Group thought that further consideration of these provisions was necessary to extend the requirement in paragraph 2 to other fisheries and to clarify the terminology on "bycatch" used in these paragraphs.

Regarding subparagraph 4.d.iii, which requires entangled sea turtles to be released, the meeting noted that it was important to expand the scope of application of this requirement to other fishing gears in order to ensure the least possible harm to the turtles. It was also understood that fishermen would use the equipment for turtle release that longline vessels would be required to carry under subparagraph 4.d.v.

With respect to subparagraph 4.d.v, the Working Group wanted to call the attention of the Commission to the difficulties for developing countries to obtain the equipment contemplated, and the need for assistance and time for them to implement this requirement of the resolution.

The following elements, which the original Japanese proposal had included under paragraph 3.d of the resolution, were considered important and were extensively discussed, but some delegations thought that there was insufficient evidence of their effectiveness to warrant their inclusion at this time, stressing the need to apply these measures and other alternative measures on an experimental basis first. Some other delegations supported inclusion of the two paragraphs. The meeting agreed to send these two paragraphs to the Commission for further consideration at its meeting in June:

"v. Require fishermen on longline vessels to use circle hooks in longline gears set at depths of less than 120 meters from the surface."

“vi. Encourage fishermen on longline vessels not to use squid as bait with longline gears set at depths of less than 120 meters from the surface.”

## **8. Longer-term measures for sea turtle conservation - development of a 3-year program**

Japan introduced a proposal for a three-year program to improve sea turtle conservation, including collection of information on bycatches of sea turtles, measures for mitigating such bycatches, and education and capacity building. The ensuing discussion covered the importance of basing measures on sound research and reliable data, of ensuring that these activities do not interfere with the Commission's primary function of conservation and management of the fish stocks covered by the Convention, and of working closely with FAO and other relevant organizations. After considerable discussion, the Working Group agreed on a recommendation for presentation to the Commission at its next meeting (Appendix 4).

The United States asked that its proposal for a program for information and education on bycatch (Appendix 5), which was not included in the recommendation, be appended to the minutes of the meeting and discussed at the IATTC meeting in June.

## **9. Handling of shark bycatch in the purse-seine fishery**

Dr. Allen presented Document [BYC-4-09](#), noting that the issue had been referred to the Working Group by the Permanent Working Group on Compliance at its meeting in June 2003. The Working Group agreed that the question of shark mortality needed to be considered in the broader context of conservation and management, and not focus only on the purse-seine fishery, and did not recommend any action on handling sharks in that fishery. The importance of the sustainable use of sharks in both targeted catches and bycatches was also recognized at the meeting. The discussion again underscored the need to define the various different sorts of bycatch, reflected in the brackets added to the text of the Resolution on Bycatch.

During the discussion, Chinese Taipei was asked to provide information to the next meeting of the Commission in June on its longline vessels of less than 24 m reported to be targeting sharks off Central America.

## **10. Recommendations to the Commission**

The meeting approved two recommendations (Appendices 3 and 4) for consideration by the Commission at its meeting in June 2004.

## **11. Other business**

The United States explained to the meeting its efforts with regard to mitigating the effects on seabirds of fisheries around Hawaii, and proposed that the pertinent provisions of the bycatch resolution should also apply to seabirds. Japan, Spain, and Chinese Taipei reported on their efforts to reduce seabird mortality associated with longline fisheries in the Pacific.

## **12. Adjournment**

The meeting was adjourned on January 16, 2004.

## **Appendix 1.**

### **COMISION INTERAMERICANA DEL ATUN TROPICAL INTER-AMERICAN TROPICAL TUNA COMMISSION**

### **GRUPO DE TRABAJO SOBRE CAPTURA INCIDENTAL WORKING GROUP ON BYCATCH**

#### **4<sup>a</sup> REUNION – 4<sup>TH</sup> MEETING**

**Kobe (Japan)**  
**14-16 de enero de 2004 - 14-16 January 2004**

#### **ASISTENTES - ATTENDEES**

##### **MIEMBROS--MEMBERS**

##### **ECUADOR**

**LUCIA FERNÁNDEZ DE DE GENNA**

**LUIS TORRES NAVARRETE**

Ministerio de Comercio Exterior, Industrialización, Pesca  
y Competitividad

**GUILLERMO MORÁN**

Asociación de Exportadores de Pesca Blanca

##### **ESPAÑA – SPAIN**

**CARLOS DOMÍNGUEZ DÍAZ**

**IGNACIO ESCOBAR**

Ministerio de Agricultura, Pesca y Alimentación

**JAVIER ARIZ TELLERIA**

Instituto Español de Oceanografía

**JULIO MORÓN**

OPAGAC

##### **JAPAN - JAPON**

**MASANORI MIYAHARA**

**KATSUMA HANAFUSA**

**SEIICHI SAKAMOTO**

**MIWAKO TAKASE**

**TAKUMI FUKUDA**

**KATSUMASA MIYAUCHI**

**SINGO FUKUI**

**KOICHI MIZUTANI**

**TAKAYUKI SAITO**

Fisheries Agency

**HIDEKI NAKANO**

Fisheries Research Agency

National Research Institute of Far Seas Fisheries

**MAKOTO MIYAKE**

**KAZUHIDE KAMIKAWANA**

Federation of Japan Tuna Fisheries Cooperative  
Association

##### **MEXICO**

**PEDRO ULLOA**

Instituto Nacional de Pesca

**MICHEL DREYFUS**

FIDEMAR

##### **UNITED STATES OF AMERICA - ESTADOS UNIDOS DE AMERICA**

**DAVID HOGAN**

Department of State

**MARTIN MURPHY**

American Embassy, Tokyo

**SCOTT BURNS**

**REBECCA LENT**

**CHARLES BERGMANN**

**CHARLES KARNELLA**

**CHRISTINA FAHY**

**GEORGE BALAZS**

**JOHN WATSON**

**PETER DUTTON**

**SVEIN FOUGNER**

National Marine Fisheries Service

**OBSERVADORES--OBSERVERS**  
**EUROPEAN UNION – UNION EUROPEA**

**JOHN SPENCER**  
**ROBERTO CESARI**  
**ALAIN FONTENEAU**  
European Commission

**PHILIPPINES – FILIPINAS**

**FRANCISCO TIU-LAUREL**  
Confederation of Philippine Associations

**RICHARD SY**  
OPRT Philippines

**CHINESE TAIPEI – TAIPEI CHINO**

**TED TIEN-HSIANG TSAI**  
Fisheries Agency  
Council of Agriculture

**STEVEN LO**  
**KUO-CHING WU**  
Taiwan Tuna Association

**NON-GOVERNMENTAL ORGANIZATIONS - ORGANIZACIONES NO GUBERNAMENTALES**

**KELLY MALSCH**  
Defenders of Wildlife

**IATTC STAFF – PERSONAL DE LA CIAT**

**ROBIN ALLEN**, Director  
**MARTIN HALL**  
**BRIAN HALLMAN**

**BERTA JUAREZ**  
**NICHOLAS WEBB**

## **Appendix 2.**



### **STATEMENT OF INTENT REGARDING FISHERIES BYCATCH OF MARINE TURTLES IN THE EASTERN PACIFIC OCEAN.**

Recognizing that marine turtles represent a resource of significant natural and cultural importance to the nations and citizens of Latin America;

Noting that the best available science indicates that species of sea turtles are threatened or endangered and that some of these species may face an imminent risk of extinction;

Given that the Inter-American Tropical Tuna Commission (IATTC) exists to sustainably manage the shared tuna and tuna-like resources of the Eastern Pacific Ocean and that management of the fishery includes a shared responsibility to manage the impacts of the fishery on non-target species; Noting that there are promising possibilities for modifying fishing techniques and gears to address the problem of fisheries bycatch of marine turtles;

Recognizing cooperation between governments, scientists, fishermen and environmental organizations is essential reducing fisheries bycatch of marine turtles;

Whereas the Bycatch Working Group of the Inter-American Tropical Tuna Commission will meet in Kobe, Japan on 14-16 January 2004 to explore the development of a program to conserve sea turtles and to identify measures for improved fishing gears and techniques in order to further the objectives and provisions of the IATTC Bycatch Resolution;

Therefore we wish to state our commit to working to minimize the bycatch of marine turtles in the Eastern Pacific Ocean; and

We note that the types of measures recommended in Document BYC-4-05b for consideration at the Bycatch Working Group meeting represent the sorts of measures that we believe ought to be pursued in a cooperative manner by governments, scientists, industry and environmental organizations as an important part of an effective marine turtle recovery effort.

**Appendix 3.**

**INTER-AMERICAN TROPICAL TUNA COMMISSION**

**WORKING GROUP ON BYCATCH**

**4<sup>TH</sup> MEETING**

KOBE (JAPAN)  
14-16 JANUARY 2004

**RECOMMENDATION**

**REGARDING THE  
CONSOLIDATED RESOLUTION ON BYCATCH (C-03-08)**

*The Inter-American Tropical Tuna Commission (IATTC):*

*Recalling and reaffirming the Resolutions on Bycatch adopted at the 66<sup>th</sup>, 68<sup>th</sup>, and 69<sup>th</sup> Meetings of the Commission in June 2000, 2001, and 2002, respectively;*

*Recognizing the value of consolidating the operative parts of these resolutions into one comprehensive resolution on bycatch;*

*Believing that any additional measures on bycatch should also be incorporated into this single resolution;*

*Has agreed as follows:*

**ACTIONS BY GOVERNMENTS**

Contracting Parties, cooperating non-Parties, fishing entities and regional economic integration organizations (collectively “CPCs”) shall:

**1. Reduction of the incidental mortality of juvenile tunas:**

- a. Until January 1, 2005:
  - i. Implement programs to require all purse-seine vessels to first retain on board and then land all bigeye, skipjack, and yellowfin tuna caught, except fish considered unfit for human consumption for reasons other than size. A single exception shall be the final set of a trip, when there may be insufficient well space remaining to accommodate all the tuna caught in that set.
  - ii. Review annually the effect and effectiveness of this program.
- b. Support, and seek the necessary funds for, the following future studies and research:
  - i. Develop technology for releasing juvenile tunas, particularly sorting grids.
  - ii. Apply technology for the identification of species and size composition in schools prior to setting, for example acoustic technology.
- c. Pursue the establishment of mechanisms for communicating information on areas of high concentration of juvenile tunas in real time within the fleet or parts of the fleet, taking account of the importance of ensuring confidentiality of such information.

**2. [Release of non-target species]**

Require fishermen on purse-seine vessels to promptly release unharmed, to the extent practicable, all

| sharks, billfishes, rays, ~~mahi-mahi~~(dorado), and other non-target species.]

3. General:

- a. [Publicize the provisions of the Resolutions, particularly the requirement to promptly release unharmed, to the extent practicable, all sea turtles, sharks, billfishes, rays, dorado and other non-target species.]
- b. [Encourage fishermen to develop and use techniques and equipment to facilitate the rapid and safe release of any such animals.]
- c. ~~For longline vessels, urge those governments with such vessels targeting species covered by the Convention operating in the region to provide the required bycatch information as soon as possible.~~

Moved from 4

4. Sea turtles:

- a. Require fishermen on ~~purse seine vessels~~vessels targeting species covered by the Convention to promptly release unharmed, to the extent practicable, all sea turtles.
- b. Encourage all the ~~PartiesCPCs~~ to voluntarily provide the Commission with all data on ~~incidental catches~~bycatches of sea turtles in all fisheries; ~~targeting species covered by the Convention mainly those for tunas~~, recognizing that a comprehensive approach is necessary to deal effectively with sea turtle issues;
- c. Encourage FAO to address the conservation and management of sea turtles, including the issue of bycatches of sea turtles as part of such a comprehensive approach;
- d. Implement the following actions:
  - i. Train crews of ~~tuna purse seine vessels~~vessels targeting species covered by the Convention, particularly those without observers, in techniques for handling turtles to improve survival after release, ~~and encourage States to take similar actions for other tuna fisheries~~.
  - ii. Prohibit ~~tuna fishing~~ vessels targeting species covered by the Convention from disposing of salt bags or any other type of plastic trash at sea.
  - iii. Encourage the release, when practicable, of sea turtles entangled in FADs and other fishing gear.
  - iv. Foster the recovery of FADs when they are not being used in the fishery.
  - v. Take measures, including providing assistance, necessary to ensure that longline vessels carry on board the necessary equipment (e.g. de-hookers, line cutters and scoop nets) for appropriate release of incidentally caught sea turtles
- e. Require specific measures for encircled or entangled sea turtles, as follows:
  - i. Whenever a sea turtle is sighted in the net, all reasonable efforts should be made to rescue the turtle before it becomes entangled in the net, including, if necessary, the deployment of a speedboat.
  - ii. If a turtle is entangled in the net, net roll should stop as soon as the turtle comes out of the water and should not start again until the turtle has been disentangled and released.
  - iii. If a turtle is brought aboard the vessel, all appropriate efforts to assist in the recovery of the turtle should be made before returning it to the water.
- f. Educate fishermen through information dissemination activities, including distributing informational materials and organizing seminars on, inter alia, reducing bycatches of sea turtles and safe handling of incidentally caught sea turtles to improve their survivability.

**5. General:**

- a. ~~Publicize the provisions of the Resolutions, particularly the requirement to promptly release unharmed, to the extent practicable, all sea turtles, sharks, billfishes, rays, dorado and other non-target species.~~
- b. ~~Encourage fishermen to develop and use techniques and equipment to facilitate the rapid and safe release of any such animals.~~
- c. ~~For longline vessels, urge those governments with such vessels operating in the region to provide the required bycatch information as soon as possible.~~

Moved  
to 3

#### ACTIONS BY IATTC STAFF

The Director shall:

1.5. Reduction of the incidental mortality of juvenile tunas:

a. Seek the necessary funds for the following future studies and research:

- i. Develop technology for releasing juvenile tunas, particularly sorting grids.
- ii. ~~Apply Develop~~ technology for the identification of species and size composition in schools prior to setting, for example acoustic technology.

2.6. Species of large pelagic fish of interest to the artisanal fishery, particularly dorado:

a. Identify areas of high bycatches of these species, and verify the stability in time and space of any such areas.

3.7. Billfish, sharks and rays:

- a. Develop techniques and/or equipment to facilitate their release from the deck or from the net.
- b. Seek the necessary funds to carry out experiments to determine the survival rates of released billfish, sharks and rays.
- c. Define areas and periods in which any of these species are most likely to be caught.

4.8. Sea turtles:

- a. Study and formulate recommendations regarding modifications of the design of FADs to eliminate entanglement of sea turtles, particularly the use of webbing hanging below FADs.
- b. Educate fishermen through information dissemination activities, including distributing informational materials and organizing seminars on, inter alia, reducing bycatches of sea turtles and safe handling of incidentally caught sea turtles to improve their survivability.
- c. Compile manuals produced by the CPCs for safe handling and release of incidentally caught sea turtles by all gear types, and make those manuals available to all the CPCs for their use.

5.9. General:

a. ~~For longline vessels, urge those governments with such vessels targeting species covered by the Convention operating in the region to provide the required bycatch information as soon as possible.~~

**Appendix 4.**

INTER-AMERICAN TROPICAL TUNA COMMISSION

**WORKING GROUP ON BYCATCH**

**4<sup>TH</sup> MEETING**

KOBE (JAPAN)  
14-16 JANUARY 2004

**RECOMMENDATION**

**A THREE-YEAR PROGRAM TO IMPROVE SEA TURTLE  
CONSERVATION**

**A. COLLECTION AND ANALYSIS OF ALL AVAILABLE INFORMATION ON  
INTERACTIONS WITH SEA TURTLES**

**1. For the purpose of collection of statistically reliable scientific data regarding bycatch of sea turtles from fisheries**

- a. Contracting Parties, cooperating non-Parties, fishing entities and regional economic integration organizations (collectively "CPCs") are encouraged to collect, and provide to the IATTC, all available information on fishery interactions with sea turtles in the eastern Pacific Ocean (EPO), including both incidental and direct catches and other impacts on sea turtle populations.
- b. CPCs should develop other techniques, including electronic and other monitoring devices, to improve the collection of scientific data regarding sea turtle bycatch.

**2. High priority of research in coastal habitat areas of sea turtles**

Interested CPCs, in cooperation with the IATTC, should assign a high priority to conducting research on the interaction between small-scale artisanal fisheries and bycatch of sea turtles in coastal areas.

**3. Review of information and data on sea turtles**

CPCs and, as appropriate, the IATTC should review available information and data regarding:

- a. biology of sea turtles, including, but not limited to, behavior, diet selection, migration pattern, and nesting areas and nursery grounds.
- b. all sea turtle conservation efforts undertaken by CPCs and other organizations.

To this end, the IATTC should intensify, as appropriate, cooperation with FAO, other regional fisheries management organizations and organizations for sea turtle conservation.

**B. MITIGATION MEASURES FOR REDUCING SEA TURTLE BYCATCH**

**1. Review of effectiveness of mitigation measures**

The Commission should review the effectiveness of the mitigation measures and their impact on catches of both sea turtles and target species.

**2. Improvement of fishing gears**

CPCs and the IATTC should continue to improve techniques to further reduce sea turtle bycatch, and should expeditiously undertake research to determine the effectiveness of the use of circle hooks and other measures in reducing the incidental catch and mortality of sea turtles, and assess their effects on the catch of target species.

## **C. INDUSTRY EDUCATION**

### **1. Preparation and distribution of informational materials**

CPCs and the IATTC should continue wide distribution of informational materials to fishermen who operate in the EPO to assist them in treating incidentally-caught sea turtles properly to improve their survivability.

### **2. Convening meetings for fishermen**

CPCs and the IATTC should continue and expand organization of seminars for fishermen to enable them to treat incidentally-caught sea turtles properly to improve their survivability.

## **D. CAPACITY BUILDING IN COASTAL DEVELOPING COUNTRIES**

The Commission should establish a voluntary fund to assist coastal developing CPCs in improving conservation of sea turtles.

## **E. REPORTING**

CPCs should report to the IATTC, in a timely manner, as appropriate, information relevant to this program.

## **Appendix 5.**

### **PROPOSAL BY THE UNITED STATES**

The IATTC staff shall develop a comprehensive program plan and budget, and seek extrabudgetary resources, for the IATTC to serve as a regional information and education center on bycatch to:

- a. Compile and disseminate information about the condition of species of special concern;
- b. Develop and disseminate materials for fishermen on bycatch avoidance, reduction and mitigation gear and techniques;
- c. Develop and disseminate results of research by CPCs and others into the effects and effectiveness of bycatch avoidance and mitigation measures;
- d. Provide advice on and facilitate the acquisition of mitigation tools (e.g., dehookers, line cutters);
- e. Conduct or participate in the conduct of seminars and meetings with fishermen and managers to educate them on such matters as species identification, proper handling and release methods for sea turtles, and the use of mitigation tools;
- f. Use the IATTC website to disseminate current information and research on bycatch avoidance and mitigation.