

ICCAT ENHANCED RESEARCH PROGRAM FOR BILLFISH
(Expenditures/Contributions 2010 & Program Plan for 2011)

Summary and Program objectives

The ICCAT Enhanced Research Program for Billfish, which began in 1987, continued in 2010. The Secretariat coordinates the transfer of funds and the distribution of tags, information, and data. The General Coordinator of the Program is Dr. David Die (USA); the East Atlantic coordinator was Mr. Paul Bannerman (Ghana), while the West Atlantic coordinator is Dr. Eric Prince (USA).

The original plan for the ICCAT Enhanced Research Program for Billfish (IERPB, SCRS 1986) included the following specific objectives: (1) to provide more detailed catch and effort statistics, particularly for size frequency data; (2) to initiate the ICCAT tagging program for billfish; and (3) to assist in collecting data for age and growth studies. During past Billfish Species Group meetings, the Billfish Species Group requested that the IERPBF expands its objectives to evaluate habitat use of adult billfish, study billfish spawning patterns and billfish population genetics. The Billfish Species Group believes that these studies are essential to improve billfish assessments. Efforts to meet these goals continued during 2010 and are highlighted below.

The program depends on financial contributions, including in-kind support, to reach its objectives. This support is especially critical because the largest portion of billfish catches is, in recent years, coming from countries that depend on the support of the program to collect fishery data and biological samples. In recent years most of the financial support came from ICCAT funds but in 2009 there was also a contribution from Chinese Taipei.

2010 Activities

The following is a summary of the activities of the Program; more details of activities conducted in the western Atlantic can be found in SCRS/2010/150 and in SCRS/2010/100. Five observer trips onboard Venezuelan longline vessels were completed by July 2010 and some more may be completed before the end of the year. Sampling of Venezuelan artisanal catches also continued in the central coast of Venezuela and more than 1700 trips were monitored. Biological sampling from both the pelagic longline and artisanal Venezuelan fisheries has provided more than 11,000 samples. These included more than 6000 sailfish, more than 1700 blue marlin and almost 1000 white marlin spines and gonads for age, growth and reproductive studies. This year this program recovered 45 tagged billfish before August 2010.

The IERPBF continued to support Brazil in their collaboration with United States institutions for testing the performance of circle hooks on board commercial vessels, deploying pop-up satellite tags, tissue sampling for genetic analyses, and fin spine sampling for age and growth studies. With IERPBF support, Uruguay continued to collect samples this year for age, growth and genetic analysis of billfish onboard longline vessels. Barbados provided the IERPBF with data catch and effort on billfish recreational tournaments and has also reinitiated its billfish tagging program.

In West Africa the program continued to support a review of billfish statistics in Ghana, Senegal and Cote d'Ivoire. Improvements of catch records from these countries are reflected in the Task I tables for billfish, and were obvious during the marlin data preparatory meeting of 2010. Support of this program facilitated the estimation of relative abundance indices for Cote d'Ivoire, Ghana and Senegal during 2010, and studies of spawning of billfish in Cote d'Ivoire. The program also profited from the cooperation with Spanish scientists that collected biological samples of billfish on-board purse seiners.

Documents that were produced in 2010 with the benefit of direct support of the IERPBF were SCI/2010/023, SCI/2010/024, SCI/2010/030, SCRS/2010/020, SCRS/2010/021, SCRS/2010/027, SCRS/2010/049, SCRS/2010/093 and SCRS/2010/100.

2011 Plan and activities

The highest priorities for 2011 are to support the improvement of data on the genetic identification of white marlin in the historical catches of white marlin and to continue improving the statistics of artisanal fisheries Atlantic-wide. Such priorities will require to continue:

- the support of the monitoring of the Uruguayan, Venezuelan and Brazilian longline fleet through onboard observers, reporting of conventional tags, and biological sampling.
- the support of biological sampling in western Africa.
- to support the processing of historical samples of white marlin spines for genetic studies.

All these activities depend on successful coordination sufficient financial resources and adequate in-kind support. Details of IERPB funded activities for 2011 are provided below. Some of these will complement general improvements in data collection made with the support of the ICCAT data improvement program.

Shore-based sampling

Sampling of artisanal and small scale fisheries to support the estimation of catch and effort statistics will be focused on fleets contributing the largest parts of the catch and/or those having traditionally provided the higher quality data in the past, to ensure the preservation of an uninterrupted time series of catch and relative abundance indices.

West Atlantic

Sampling at landing sites will be conducted for gillnet landings in central Venezuela.

Eastern Atlantic

Monitoring and sample collection will be supported for the artisanal fisheries of Ghana, Côte d'Ivoire, and Senegal.

At-sea sampling

West Atlantic

Continued support will be provided to the sampling made onboard the Uruguayan, Venezuelan, and Brazilian vessels that have been supported in the past by IERPB

Tagging

The program will need to continue to support conventional tagging and recapture reporting conducted by program partners.

Biological studies

The biological sampling program for collecting and processing genetic samples from billfish, particularly white marlin and spearfish, will continue in 2011. This program will aim to determine the ocean-wide ratio of white marlin to roundscale spearfish, including how this ratio has changed through time. The later will be done by taking advantage of the spine collections (from Venezuela, Uruguay, Brazil, Spain, and the United States) collected in the past with the support of the IERPB.

Efforts to collect biological samples for reproduction, age and growth studies requires IERPB support to facilitate cooperation from fleets that are monitored with IERPB funds. The emphasis of biological sampling for age, growth, and reproductive studies will be directed at sailfish and longbill spearfish.

Coordination

Training and sample collection

Program coordinators need to travel to locations not directly accessible to promote IERPB and its data requirements. This includes travel to West African countries, as well as the Caribbean and South America by the general coordinator and the coordinator from the west. Strong coordination between activities of the IERPB and the ICCAT data improvement project will continue to be required.

Program management

Management of the IERPb budget is assumed by the program coordinators, with the support of the Secretariat. Reporting to the SCRSC is responsibility of the coordinators. Countries that are allocated budget lines for program activities need to contact the respective program coordinators for approval of expenditures before the work is carried out. Invoices and brief reports on activities conducted need to be sent to ICCAT to obtain reimbursement of funds.

2010 Budget and Expenditures

This section presents a summary of the contributions and expenditures for the ICCAT Enhanced Research Program for Billfish during 2010. The 2010 budget recommended by the Billfish Working Group for IERPb was €39,850.00. The only contributions made to the IERPb during 2010 were an allocation of €30,000.00 from the regular ICCAT budget. Carryover funds remaining from previous years were €4,978.80 thus total funds available for 2010 were €34,978.80 (**Table 1**). As a consequence some planned activities of the program were not carried out. Expenditures to date in 2010 were €16,281.00 but an additional €16,700.00 are already committed to other activities that have either taken place in 2010 or will take place between October and December. The estimated balance of the program at the end of 2010 will be €1,997.80 (**Table 2**). These unspent funds correspond to savings in the travel from the coordinator for the East who used support from the ICCAT fund to fulfill his coordination travel duties.

In-kind contributions to the program continued to be made during 2010. INIA and the University of Oriente (Venezuela) have provided personnel and other resources as in-kind contributions to the at-sea sampling program, thereby reducing the amount of funds needed for this activity from the ICCAT billfish funds. Also, the western, eastern and overall program coordinators traveled to through each of the region of responsibility to oversee IERPb work. Travel expenditures for these trips were absorbed by the U.S. National Marine Fisheries Service, the University of Miami and, and by the ICCAT Data Fund that supported and as such, represented in-kind contributions to IERPb for 2010. Ghana and Senegal provided in-kind contributions by supporting the time spent in the program by Mr. Bannerman and Mr. T. Diouf (Senegal) co-coordinators for the Eastern Atlantic.

2011 Budget and requested contributions

The summary of the 2011 proposed budget, totaling €46,850.00 is attached as **Table 3**. The Working Group requests that the Commission increases its contribution from €30,600.00 to €45,600.00 for 2011 to cover urgent needs of the IERPb program (see **Table 4**). The requested contribution from ICCAT is necessary to fully implement the IERPb 2011 program plan.

The consequence of the Program failing to obtain the requested budget will be to stop or reduce program activities for 2011 including: (1) important at-sea observer trips in Venezuela, Uruguay and Brazil; (2) coordination travel for eastern coordinators; (3) sampling of artisanal fleets in the western and eastern Atlantic (4) sampling and processing of genetic, age and growth samples; (6) promotion of conventional tagging activities, including distribution of tag recovery incentives.

Conclusion

The IERPb has been credited for major improvements in the data supporting the last ICCAT billfish assessments. In preparation for the assessments of marlins the Program needs to continue to facilitate the collection of biological and fishery information. If the IERPb Program were to be terminated due to lack of funds, essential research and monitoring activities that are now supported by the Program will suffer and the Working Group will be in a difficult position to address the needs of the Commission, specially the upcoming assessment meetings for blue marlin and white marlin. Although considerable benefits will accrue from various outputs of the ICCAT data improvement program, the IERPb is the only program that exclusively focuses on billfish. By having this focus it is in the best position to ensure that the research and monitoring activities not covered by the ICCAT data improvement program are given some minimal resources. The IERPb is an important mechanism towards completing the goal of having the highest quality information to assess billfish stocks.

Table 1. Summary budget for 2010 for the Billfish Program.

<i>Source</i>	<i>Euros (€)</i>
Balance at start of Fiscal Year 2010	4,978.80
Budget recommended by the Working Group	39,850.00
Income (Allocation from ICCAT Regular Budget)	30,000.00
<u>Expenditures and obligations (for details see Table 2)</u>	<u>-32,981.00</u>
Estimated BALANCE	1,997.80

Table 2. Detailed 2010 Budget & Expenditures (as of October 1, 2010).

		<i>Euros (€)</i>
Balance transferred from 2009		4,978.80
Income	Total	30,000.00
	ICCAT Commission	30,000.00
Expenditures	Total	-16,281.00
	Venezuela	-16,270.00
	Bank charges	-11.00
Balance (as of October 1, 2010)		18,697.80
Funds obligated until end of 2010		-19,600.00
	Uruguay	-2,000.00
	Brazil	-5,000.00
	Ghana	-3,000.00
	Senegal	-3,000.00
	Côte d'Ivoire	-3,000.00
	Tag reward	-500.00
	Bank charges	-100.00
Total estimated expenditures		-32,981.00
Estimated balance December 31, 2010		1,997.80

Table 3. Summary budget of the ICCAT Enhanced Research Program for Billfish for 2011.

<i>Source</i>	<i>Euros (€)</i>
Balance at start of Fiscal Year 2011 (estimated)	1997.80
Income (Requested from ICCAT Regular Budget)	30,600.00
<u>Other contributions)</u>	<u>15,000.00</u>
<u>Expenditures (see Table 4)</u>	<u>46,850.00</u>
BALANCE	747.80

Table 4. Detail of expenditures planned for 2011.

<i>Source</i>	<i>Amount (€)</i>
STATISTICS & SAMPLING	
<i>West Atlantic shore-based sampling:</i>	
Venezuela	5,000.00
<i>West Atlantic at-sea sampling:</i>	
Venezuela	6,000.00
Uruguay	2,000.00
Brazil	5,000.00
<i>East Atlantic shore-based sampling:</i>	
Senegal	3,000.00
Ghana	3,000.00
Côte d'Ivoire	3,000.00
Processing of Genetic samples	17,000.00 *
Lottery rewards – tagging billfish	500.00
COORDINATION	
Coordination travel East Atlantic	2,000.00
Mailing & miscellaneous	100.00
Bank charges	250.00
GRAND TOTAL	46,850.00

Authorization of all these expenditures depends on sufficient funds being available by ICCAT and from other contributions.

* Number of samples processed will depend on the final budget of the program.