

REPORT OF THE CARICOM FISHERY RESOURCE ASSESSMENT AND MANAGEMENT PROGRAM (CFRAMP)

Mahon, R., S. Singh Renton

Pelagic and Reef Fishes Resource Assessment Unit, Tyrell St., Kingstown, St. Vincent and the Grenadines

SUMMARY

During 1991-1992, the CARICOM Fisheries Resource Assessment and Management Program initiated several sub-projects in the twelve participating countries. In the area of institutional strengthening, Fishery Management Planning, Data and Information Systems, and Licensing and Registration are most relevant to ICCAT activities. In April, 1992, the Program established the Pelagic and Reef Fishes Resource Assessment Unit, in St. Vincent and the Grenadines. This Unit has completed a survey of fishery assessment needs in the participating countries and is in the process of developing proposals for consideration by these countries. The most significant changes in pelagic fisheries in CARICOM were in Grenada, St. Vincent and the Grenadines, and St. Lucia, where 8, 5, and 5 new 15 m longline vessels became operational during the year. In St. Lucia, an additional 20 (of 40) 9 m vessels also went into operation.

RESUME

En 1991-92, le Programme d'Evaluation et de Gestion des Ressources halieutiques de la CARICOM a mis en route plusieurs sous-projets dans les douze pays qui y prennent part. Dans le domaine du renforcement des institutions, la Planification de la Gestion des Pêcheries, les Systèmes de données et d'information, et les Licences et Immatriculations sont celles qui touchent l'ICCAT de plus près. Au mois d'avril 1992, le Programme a créé à St. Vincent et Grenadines l'Unité d'Evaluation des Ressources Pélagiques et des Récifs. Cette unité a mené à bien une prospection des besoins en évaluation des pêcheries des pays participants, et est actuellement en train d'élaborer des propositions pour examen par ces pays. Les modifications les plus significatives des pêcheries pélagiques dans le cadre de la CARICOM se sont produites à Grenade, à St. Vincent et aux Grenadines, et à Ste. Lucie, où 8, 5 et 5 nouveaux palangriers de 15 m sont entrés en activité pendant l'année. A Ste. Lucie, 20 (sur 40) bateaux de plus, de 9 m, sont également entrés en activité.

RESUMEN

Durante 1991/1992, el Programa de CARICOM de Evaluación y Gestión de Recursos de Pesquerías inició diversos subproyectos en los doce países participantes. En el terreno del fortalecimiento institucional, el Plan de Gestión de Pesquerías, el Sistema de Datos e Información, y Matriculación y Registro son los que tienen mayor relevancia respecto a las actividades de ICCAT. En abril de 1992, el Programa estableció la Unidad de Evaluación del Recurso de Peces Pelágicos y de Arrecife, en St. Vincent y las Granadinas. Esta Unidad ha completado una encuesta sobre los requerimientos de evaluación de las pesquerías de los países participantes, y se encuentra en el proceso de desarrollar propuestas para someterlas a la consideración de estos países. Los cambios más significativos en las pesquerías pelágicas en CARICOM tuvieron lugar en Granada, St. Vincent y las Granadinas, y en St. Lucia, donde operaron durante el año 8, 5 y 5 nuevos palangreros de 15 m de eslora, respectivamente. En St. Lucia, faenaron también 20 barcos (de 40), de 9 m de eslora.

Activities for 1991/1992

During 1991/1992 the CARICOM Fishery Resource Assessment and Management Program (Mahon and Murray, 1992) completed two aspects of its Baseline Survey (Mahon and Boyce, 1992; Mahon and Bateson, 1992) and initiated several Subprojects. These include: Establishment/enhancement of fishery data collection and licensing and registration systems (see section below); development of fishery management plans (Falkner *et al.*, in press); a survey of training needs in Fisheries Divisions, and provision of three fellowships (one B.Sc., one M.Sc. and one PhD).

In April 1992, the Pelagic and Reef Fishes Resource Assessment Unit (RAU) was established in St. Vincent and the Grenadines, and staffed with four scientists and three support staff. This Unit has recently completed a survey of fishery assessment needs in participating countries, and is in the process of developing proposals for resource assessment activities to be considered by the participating countries at a workshop next summer. Participating countries have expressed particular interest in information on catch rates, seasons, etc., for pelagic fishes in their EEZs. The RAU will be analysing ICCAT data in an attempt to provide this information.

Changes in pelagic fisheries

In CARICOM Member States, fisheries for pelagics are most important in the countries of the southern Lesser Antilles (Dominica, St. Lucia, St. Vincent and the Grenadines, Barbados, Grenada), and in Trinidad and Tobago. In other countries demersal fisheries predominate. In the above countries, there is a continued emphasis on expansion of pelagic fishing through the improvement of small-scale vessels and gear, and through the introduction of mid-size commercial vessels:

- In St. Lucia, forty new Yanmar 9 m vessels and five new Yanmar 15 m longline vessels were introduced between 1989 and 1992. However, only 50% of the 9 m vessels are currently being used in the fishing industry.
- In Grenada, eight new Yanmar 15 m vessels, each equipped with 10 miles of longline gear, were given to the government by the Japanese. These vessels have been in operation since April 1992.
- In St. Vincent and the Grenadines five new Yanmar 12.5 m multipurpose vessels, equipped with longline and trolling gear, and one canoe were given to the government by the Japanese.
- In Trinidad and Tobago, two locally owned vessels began surface longlining activities in 1988. By 1990, the local longline fleet comprised thirteen vessels. At present, however, there are only eight local vessels (13.7-23 m) in operation.

Fishery data and statistics

Enhancement of national data collection systems

The Data and Information Subproject aims to establish shore based systems for the collection and management of catch and effort data in all participating countries (Fanning, 1992). A workshop to design these systems and to plan for their implementation was held in Barbados in June, 1992 (Fanning and Manwaring, in press). Implementation will continue through 1992-1993.

The Trip Interview Program (TIP) (Gold, 1992) will be used for data management which will be coordinated by the CARICOM Fishery Management Unit in Belize, and the OECF Fishery Unit in St. Vincent and the Grenadines. Participating countries have been provided with the microcomputer hardware and software required for data management and reporting.

The Licensing and Registration Subproject aims to establish vessel registration systems in all participating countries, and to provide the capability for licensing. These systems will include data on the characteristics of vessels and gear.

Submission of national statistics to ICCAT

At present, the ICCAT database includes data for only four CARICOM Member States, Grenada, St. Lucia, Barbados, and Trinidad and Tobago. As indicated above, these are among the countries which are most active in fishing for pelagics. In the process of establishing data collection systems in the participating countries, CFRAMP will ensure that the data are collected in a format which is consistent with ICCAT's database requirement (Singh-Renton and Mahon, in press). The procedures and mechanisms for submission of data from CARICOM countries to ICCAT will be determined and established during the course of the Data and Information Subproject.

The four countries above are in the process of confirming that the data in the ICCAT database are consistent with their national records. However, during the Data and Information Subproject, raising factors and other aspects of the methodology of estimating total landings will be reviewed and if revised, may result in changes in the estimates. ICCAT will be informed of any such changes. In addition, ICCAT's statistics for Trinidad show data only on species recorded under the following two ICCAT species codes: SSM which could include both *Scomberomorus brasiliensis* and *S. maculatus*; KGX which includes unclassified *Scomberomorus spp.*. However, additional data exist which give landings of other pelagic species at Trinidad's trans-shipment port (Chan A Shing, Fisheries Division, Trinidad, pers. comm.). CFRAMP is consulting with Fisheries Division personnel in Trinidad to document this information for submission to ICCAT.

Monitoring trans-shipment port activities

At present, several commercial Taiwanese vessels are allowed to land and trans-ship their catch at the trans-shipment port in Trinidad. Five Vincentian vessels also use the port for trans-shipment operations. The Taiwanese vessels usually dress and freeze fish at sea, and most of the fish is trans-shipped in a frozen state. In Trinidad, frozen trans-shipments are usually recorded by container weight and tuna species are not distinguished (Chan A Shing, Fisheries Division, Trinidad & Tobago, pers. comm.). The Fisheries Division, Trinidad and Tobago is in the process of documenting the activities at the trans-shipment port, and is examining the possibility of establishing a regular data collection system at the port in collaboration with the CFRAMP Data and Information Subproject.

Sharks

Generally, pelagics sharks do not comprise a major portion of the catch in any CARICOM state, and landings are usually not identified by species. Data from Barbados, Grenada and St. Vincent and the Grenadines, islands with significant pelagic fisheries, indicate that during the 1980s only 0.8-2.4% of the pelagic catch consisted of shark species (Mahon *et al.*, 1992). In Guyana and Trinidad, the sharks caught are predominantly coastal species taken

in gillnet fisheries for demersal fishes and for *Scomberomorus spp.* respectively. In Trinidad, most of the pelagic sharks landed are caught incidentally by commercial longliners targeting swordfish and tuna species. However, it should be noted that catches of mako shark are transhipped by these longline vessels from Trinidad. Furthermore, the records of shark catches by these vessels are thought to be incomplete.

References

- Fanning, P. 1992. Subproject Initiation Mission Report for Fisheries Data and Information Systems Licensing and Registration Systems (WBS 1.1.2 and 1.1.4). CARICOM Fishery Research Document No. 3: 29pp.
- Fanning, P. and G. Manwaring. in press. Report of the Subproject Specification Workshop for the Data and Information Systems and Licensing and Registration Systems Subprojects. CARICOM Fishery Research Document (IN PREPARATION).
- Gold, S. M. 1992. User's Guide for the Microcomputer-Based Data Entry Portion of TIP Trip Interview Program. Version 3.2. NMFS, SEFC, Miami, Florida: 222 pp.
- Mahon, R. and R. Bateson. 1992. Report of the CFRAMP Baseline Survey on the Role of Regional Institutions in Fisheries Research and Management. CARICOM Fishery Research Document 6: 30pp.
- Mahon, R. and S. Boyce. 1992. Baseline Survey of Fisheries Departments in CFRAMP Participating Countries: Summary Report. CARICOM Fishery Report No. 1: 72pp.
- Mahon, R. and P. A. Murray. 1992. The CARICOM Fishery Resource Assessment and Management Program. ICCAT Coll. Vol. Sci. Pap. 39: 683-885.
- Falkner, N. W., R. Mahon and M. Haughton. 1992. Subproject Initiation Mission Report for National Fishery Management Plans (WBS 1.1.1). CARICOM Fishery Research Document No. 4: 21pp.
- Mahon, R., J. Rennie, R. Ryan and S. Singh-Renton. 1992. MS. Billfish catch and effort data from Barbados, Grenada, St. Lucia and St. Vincent and the Grenadines. ICCAT Document SCRS/92/68.
- Singh-Renton, S. and R. Mahon. in press. Guidelines for Collection and Reporting of Fishery Data on Atlantic Tunas, Tuna-like Species and Associated Species. CARICOM Fishery Research Document (IN PREPARATION).

NATIONAL CATCH STATISTICS (BARBADOS)						
ESTIMATED LANDINGS (MT) - 1970 - 1990						
YEAR	YELLOW FIN TUNA	KING FISH	BILL FISH	SKIP JACK TUNA	OTHERS	TOTAL (MT)
1970	53	123	235	0	0	411
1971	56	131	250	0	0	437
1972	41	95	182	0	0	318
1973	48	112	213	0	0	373
1974	48	112	213	0	63	436
1975	79	104	352	0	67	702
1976	95	220	420	0	78	813
1977	58	135	257	0	186	636
1978	67	157	299	0	129	652
1979	81	189	361	0	123	754
1980	67	156	298	0	0	521
1981	30	144	117	78	0	369
1982	36	219	99	72	0	426
1983	51	222	126	39	0	438
1984	90	219	141	48	0	498
1985	57	120	105	36	0	318
1986	59	138	145	33	0	355
1987	57	159	117	21	0	354
1988	236	332	333	3	0	904
1989 *	62	80	88	9	0	239
1990 *	89	51	70	11	0	221
TOTAL (MT)	1440	3279	4421	350	666	10175

*Catch estimates for 1989 and 1990 are provisional totals.