

## REPORT OF THE CARICOM FISHERIES RESOURCE ASSESSMENT AND MANGEMENT PROGRAM (CFRAMP)

### *Pelagic and Reef Fishes Resource Assesment Unit<sup>1</sup>*

#### SUMMARY

Nominal catch statistics for large pelagic species are presented for the period 1991-1995. In 1996, the Program's Pelagic and Reef Fishes Resource Assessment Unit continued work on establishing/developing statistical data collection in all 12 participating countries. Grenada and Jamaica continued to participate in the ICCAT Program for Enhanced Research for Billfish. Investigation of movement patterns in the Caribbean of four large pelagic species, including blackfin tuna, continued in 1996.

#### RÉSUMÉ

Les statistiques nominales de capture des grands pélagiques sont présentées pour la période 1991-1995. En 1996, le Programme *Pelagic and Reef Fishes Resource Assessment Unit* a été poursuivi avec la mise en place d'un programme de collecte des données statistiques des douze pays participants. La Grenade et la Jamaïque participent toujours au Programme ICCAT de Recherche Intensive sur les Istiophoridés. Les recherches sur les modèles migratoires dans la Mer des Antilles de quatre grands pélagiques, dont le thon à nageoires noires, ont continué en 1996.

#### RESUMEN

Se presentan las estadísticas nominales de captura para el período 1991-1995. En 1996, el Program's Pelagic and Reef Fishes resource Assessment Unit continuó su tarea estableciendo/ desarrollando la recolección de datos estadísticos en el conjunto de los doce países participantes. Granada y Jamaica continuaron participando en el Programa ICCAT de Investigación Intensiva sobre Marlines. Continuó en 1996 la investigación de los esquemas de movimiento de cuatro grandes especies pelágicas en el Caribe, incluyendo al atún aleta negra.

#### INTRODUCTION

There are twelve Caribbean countries which participate in the CARICOM<sup>1</sup> Fisheries Resource Assessment and Management Program (CFRAMP). The fisheries in these countries are largely artisanal. Six of the twelve CFRAMP participating countries harvest notable amounts of tuna and tuna-like species. This document provides details of the annual large pelagic landings of five of these six CFRAMP participating countries for 1991 to 1995, and CFRAMP's as well as individual participating country activities in large pelagic research for the period 1995-1996.

#### FISHERIES INFORMATION

Table 1 provides landing statistics for large pelagics in those participating countries with large pelagic fisheries. As noted in table 1, some categories can include more than one species, and may represent a different group of species for each country. Given the artisanal nature of the fisheries in these Caribbean countries, the large pelagic catches are small, compared to those reported by the large, industrial ICCAT member countries.

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<sup>1</sup>CARICOM - Caribbean Community and Common Market

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<sup>1</sup> Tyrell Street, St. Vincent and the Grenadines, West Indies.

## RESEARCH AND STATISTICS

During 1996, CFRAMP continued its efforts to standardise fishery data collection systems in all participating countries, and to encourage the recording of catch and effort data at the species level. In addition, CFRAMP continued to work with participating countries to collect biological data (data on length frequencies, age, and maturity) on a number of fish species including yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*), blackfin tuna (*T. atlanticus*), king mackerel (*Scomberomorous cavalla*), and wahoo (*Acanthocybium solandri*). Trinidad and Tobago are continuing to collect biological data on Spanish mackerel (*S. brasiliensis*), and selected shark species such as the blacktip shark (*Carcharhinus limbatus*), the puppy shark (*C. porosus*), and the Brazilian sharpnose shark, (*Rhizoprionodon lalandii*). Length frequency data on Spanish mackerel, the blacktip shark, and the Caribbean sharpnose shark (*R. porosus*) are being collected in Guyana. These data are currently being computerised to facilitate assessment-related data analyses in the near future.

During the 1995/1996 billfish season, Grenada continued to collect biological data (lower jaw fork length (LJFL), pectoral fork length (PFL), pectoral anal length (PAL), weight and sex) for the ICCAT Programme for Enhanced Research for Billfish. The commercial landings were sampled for size frequencies. Data on length, weight and sex were recorded for recreational billfish catches.

The movement patterns of blackfin tuna, king mackerel, wahoo, and dolphinfish are being studied by means of a fish tagging study. Using small open boats, fish are being tagged with plastic tipped dart tags and released in the waters of Grenada, St. Vincent and the Grenadines, and Dominica. In addition, CFRAMP is trying to extend the current tagging effort through the use of fishing tournaments. Since April 1996, 70 blackfin tuna, 5 dolphinfish and 6 wahoo have been successfully tagged and released.

CFRAMP examined ICCAT catch and effort data for the Caribbean region for the period 1956-1990 to determine temporal and spatial trends in catch, effort, and estimated catch per unit of effort for a number of tuna species.

## ACKNOWLEDGEMENTS

CFRAMP wishes to thank the fisheries officers in its participating countries, for their assistance in the preparation of this report. The information and statistics presented were provided by Ms. Sandra Prescod (Barbados), Mr. Harold Guiste (Dominica), Mr. Paul Phillip (Grenada), Ms. Williana Joseph (St. Lucia), and Ms. Cheryl Jardine (St. Vincent and the Grenadines).

**Table 1. Commercial landings (mt, rounded to the nearest 0.1 mt when data were sufficiently precise) of large pelagic fish species by some CARICOM countries, 1991 - 1995.**

Country	Common Name	Scientific Name	1991	1992	1993	1994	1995
Barbados	Tuna unsp		71.0	112.0	167.0	162.0	255.0
	Billfish unsp		58.0	84.0	99.0	91.0	148.0
	Wahoo	<i>Acanthocybium solandri</i>	60.0	51.0	91.0	82.0	42.0
	Shark unsp		19.0	24.0	18.0	22.0	24.0
Dominica	YellowfinTuna	<i>Thunnus albacares</i>	11.7	22.6	30.2	31.0	9.0
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	37.8	41.1	23.6	43.0	32.8
	Blackfin Tuna	<i>Thunnus atlanticus</i>	9.7	13.9	14.8	19.0	30.1
	Wahoo	<i>Acanthocybium solandri</i> & <i>Scomberomorus cavalla</i>	42.8	59.1	58.6	59.0	58.0
Grenada	YellowfinTuna	<i>Thunnus albacares</i>	620.2	595.2	857.9	385.0	409.9
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	25.0	30.1	25.1	11.0	12.4
	Blackfin Tuna	<i>Thunnus atlanticus</i>	194.8	146.0	252.7	189.0	123.2
	Bigeye Tuna	<i>Thunnus obesus</i>	64.8	25.0	20.1	10.0	9.9
	Mackerel	<i>Scomberomorus spp.</i>	0.4	0.2	0.7	2.0	2.0
	Wahoo	<i>Acanthocybium solandri</i>	76.5	104.0	95.7	46.0	49.2
	Atlantic Sailfish	<i>Istiophorus albicans</i>	315.7	310.0	246.2	151.0	118.8
	Blue Marlin	<i>Makaira nigricans</i>	63.9	51.8	57.9	52.0	50.1
	Swordfish	<i>Xiphias gladius</i>	2.0	3.2	13.1		1.0
St Lucia	YellowfinTuna	<i>Thunnus albacares</i>	49.3	57.5	91.7	130.4	144.0
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	51.2	39.3	52.6	86.0	72.0
	Blackfin Tuna	<i>Thunnus atlanticus</i>	14.2	13.4	15.9	81.7	47.0
	Tuna unsp.		56.1	44.5	71.8	15.7	10.0
	Atlantic Bonito	<i>Sarda sarda</i>	3.2	2.8	4.2	1.3	<1.0
	Kingfish	<i>Scomberomorus cavalla</i> & <i>Acanthocybium solandri</i>	78.6	149.8	141.2	97.6	79.8
	Shark	<i>Unknown</i>					5.5
St.Vincent and Grenadines	YellowfinTuna	<i>Thunnus albacares</i>	23.9	21.8	65.0	16.0	42.8
	Albacore	<i>Thunnus alalunga</i>			2.0	0.1	<0.1
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	27.4	19.8	65.8	56.0	53.0
	Blackfin Tuna	<i>Thunnus atlanticus</i>	10.6	6.6	53.4	19.0	20.1
	Bigeye Tuna	<i>Thunnus obesus</i>	0.0	1.2	3.3	0.1	3.6
	Little Tuna	<i>Euthynnus alleteratus</i>		0.2	1.0		<0.5
	Wahoo	<i>Acanthocybium solandri</i>	32.5	32.9	41.0	28.0	15.9
	Cero Mackerel	<i>Scomberomorus regalis</i>		0.7	0.2	0.2	<0.5
	Atlantic Sailfish	<i>Istiophorus albicans</i>	0.6	4.0	3.7	4.0	1.9
	Blue Marlin	<i>Makaira nigricans</i>	0.3	1.4	1.7	2.0	1.0
	White Marlin	<i>Tetrapturus albidus</i>		0.1	0.8	0.4	<0.5
	Swordfish	<i>Xiphias gladius</i>	0.0	3.1	22.4	0.1	4.1
	Shark	<i>Carcharhinus spp.</i>			6.4	2.4	6.6
	Shark	<i>Unknown</i>					2.3

### Notes:

Blanks signify that no data are available.

Barbados. Landings of wahoo include a small amount of king mackerel. Unknown quantities of frigate tuna are also caught.

Dominica, Grenada and St. Vincent and the Grenadines. Landings of skipjack tuna include catches of frigate tuna and bullet tuna.

Wahoo catches include a negligible amount of king mackerel.