

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

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

#### SUMMARY

Commercial landings of large pelagic species in 1996 are presented. In 1997, the Program's Pelagic and Reef Fishes Resources Assessment Unit continued to develop fishery data information systems in twelve CARICOM 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 1997, with St. Lucia holding its first full fish tag and release tournament in May of this year.

#### RÉSUMÉ

Ce document présente les débarquements commerciaux de 1996 d'espèces de grands pélagiques. En 1997, le Program's Pelagic and Reef Fishes Resource Assessment Unit a continué d'élaborer des systèmes d'information de données de pêche dans 12 pays de la CARICOM. La Grenade et la Jamaïque ont continué à participer au Programme ICCAT de Recherche intensive sur les Istiophoridés. La recherche sur les modes de déplacement, dans la mer des Caraïbes, de 4 espèces de grands pélagiques, dont le thon à nageoires noires, s'est poursuivie en 1997 ; pour la première fois à Ste. Lucie, au mois de mai de cette année, le marquage a couvert la totalité d'un championnat de pêche.

#### RESUMEN

Se presentan los desembarques comerciales de grandes especies pelágicas en 1996. En 1997, el Program's Pelagic and Reef Fishes Resource Assessment Unit (CFRAMP) siguió desarrollando sistemas de comunicación de datos de pesquería en doce países de CARICOM. Grenada y Jamaica continuaron participando en el Programa ICCAT de Investigación Intensiva sobre Marlines. En 1997 prosiguió la investigación sobre los esquemas de movimiento en el Caribe de cuatro grandes especies pelágicas, incluyendo el atún aleta negra. St.Lucia celebró su primer torneo de marcado y liberación de peces en mayo de este año.

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## INTRODUCTION

There are twelve Caribbean countries which participate in the CARICOM<sup>1</sup> Fisheries Resource Assessment and Management Program (CFRAMP<sup>2</sup>). The fisheries in these countries are largely artisanal. This report provides large pelagic landings for the period January-December 1996 for those CFRAMP countries for which the data are available at this time, and briefly summarises CFRAMP's as well as individual country activities in large pelagic research for the period November 1996-September 1997.

## FISHERIES INFORMATION

Table 1 provides commercial landing statistics for large pelagics in Barbados, Grenada, St. Lucia, St. Vincent and the Grenadines, Jamaica, and Guyana. 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.

## RESEARCH AND STATISTICS

### *Statistics*

During the reporting period, CFRAMP staff continued to work with countries to develop their fishery data information systems (licensing and registration of fishing vessels, and catch, effort, and biological data). This work includes development of individual country field sampling programs, development of software for computerisation of data and generation of reports, and training in field sampling, and data handling (computing) techniques.

In several countries, biological data (data on length frequencies, age, and maturity) are being collected on a number of fish species including yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*), blackfin tuna (*T. atlanticus*), king mackerel (*Scomberomorus cavalla*), and wahoo (*Acanthocybium solandri*). In addition, Trinidad and Tobago are continuing to collect biological data on Serra 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 Serra Spanish mackerel, the blacktip shark, and the Caribbean sharpnose shark (*R. porosus*) are being collected in Guyana. A number of administrative and logistical problems, both at the CFRAMP and individual country levels, have negatively impacted biological sampling in the various countries. CFRAMP is trying to address these problems as much as possible, to allow the data information systems to develop and improve unimpeded.

### *Participation in the ICCAT Program for Enhanced Research for Billfish*

During the 1996/1997 billfish season, Grenada and Jamaica continued to collect biological data on all billfish species caught during annual sport fishing tournaments. In Grenada, commercial landings of billfishes were also sampled throughout the reporting period to obtain size frequency data.

### *Determination of migration patterns of 4 large pelagic species*

The movement patterns of blackfin tuna (*Thunnus atlanticus*), king mackerel (*Scomberomorus cavalla*), wahoo (*Acanthocybium solandri*), and dolphinfish (*Coryphaena hippurus*) are being studied by means of a fish tagging study which commenced in April 1996. Using small open boats, fish are being tagged with plastic tipped dart tags and released into the waters of Grenada, St. Vincent and the Grenadines, and Dominica.

CFRAMP is trying to extend the current tagging effort, as well as to ensure the continuation of tagging work in the future, through the use of fishing tournaments and individual sport fisher volunteers. During the reporting period, CFRAMP, in partnership with national Fisheries Divisions and recreational anglers, conducted fish tag and release work during three fishing tournaments: Dominica (June 1997), Bequia, one of the Grenadine islands (July 1997), and St. Lucia (first full tag and release tournament, May 1997).

Since the commencement of field trips in April 1996, 183 blackfin tuna, 24 wahoo, 14 dolphinfish, and 3 king mackerel have been successfully tagged and released. Only three recaptures have been reported: all recaptures were blackfin tuna which were caught in the same area of their releases 7, 12, and 440 days later.

## ACKNOWLEDGEMENTS

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Table 1. Commercial landings (mt) of large pelagic fish species by several CARICOM countries in 1996. Only data for Grenada and St. Vincent and the Grenadines have been raised to reflect total landings. For Guyana and Jamaica, recorded landings for only some species are available at the time of writing this report. In all cases, discards are not included.

Country	Common Name	Scientific Name	1996	
Barbados	Large tunas		67.0	
	Billfish unsp		50.0	
	Wahoo	<i>Acanthocybium solandri</i>	35.0	
	Small tunas		1.0	
Grenada	Yellowfin Tuna	<i>Thunnus albacares</i>	525.3	
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	10.9	
	Blackfin Tuna	<i>Thunnus atlanticus</i>	163.8	
	Bigeye Tuna	<i>Thunnus obesus</i>	0.2	
	King Mackerel	<i>Scomberomorus cavalla</i>	1.9	
	Wahoo	<i>Acanthocybium solandri</i>	55.9	
	Atlantic Bonito	<i>Sarda sarda</i>	23.7	
	Albacore	<i>Thunnus alalunga</i>	1.1	
	Atlantic Sailfish	<i>Istiophorus albicans</i>	55.6	
	Blue Marlin	<i>Makaira nigricans</i>	25.5	
	Swordfish	<i>Xiphias gladius</i>	0.7	
	Shark unsp.		4.2	
	St. Lucia	Yellowfin Tuna	<i>Thunnus albacares</i>	110.0
Skipjack Tuna		<i>Katsuwonus pelamis</i>	37.0	
Blackfin Tuna		<i>Thunnus atlanticus</i>	32.0	
Albacore Tuna		<i>Thunnus alalunga</i>	1.3	
Atlantic Black Skipjack		<i>Thunnus alleteratus</i>	0.5	
Bluefin Tuna		<i>Thunnus thynnus</i>	3.3	
Tuna unsp.			8.0	
Atlantic Bonito		<i>Sarda sarda</i>	0.4	
King Mackerel		<i>Scomberomorus cavalla</i>	1.6	
Spotted Spanish Mackerel		<i>Scomberomorus maculatus</i>	0.2	
Cero Mackerel		<i>Scomberomorus regalis</i>	0.2	
Wahoo		<i>Acanthocybium solandri</i>	221.0	
St. Vincent and Grenadines		Yellowfin Tuna	<i>Thunnus albacares</i>	36.7
		Albacore	<i>Thunnus alalunga</i>	0.1
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	37.3	
	Blackfin Tuna	<i>Thunnus atlanticus</i>	18.1	
	Bigeye Tuna	<i>Thunnus obesus</i>	4.0	
	Little Tuna	<i>Euthynnus alleteratus</i>	0.0	
	Wahoo	<i>Acanthocybium solandri</i>	22.8	
	Mackerel	<i>Scomberomorus spp.</i>	1.3	
	Atlantic Sailfish	<i>Istiophorus albicans</i>	0.6	
	Marlin	<i>Makaira nigricans</i> & <i>Tetrapturus albidus</i>	1.1	
	Swordfish	<i>Xiphias gladius</i>	2.6	
	Shark unsp.		2.5	
	Shortfin Mako	<i>Isurus oxyrinchus</i>	0.3	

Table 1. (continued)

Jamaica	Yellowfin Tuna	<i>Thunnus albacares</i>	20.8
	Skipjack Tuna	<i>Katsuwonus pelamis</i>	62.1
	Atlantic bonito	<i>Sarda sarda</i>	8.4
	Blackfin tuna	<i>Thunnus atlanticus</i>	147.8
Guyana	Serra Spanish mackerel	<i>Scomberomorus brasiliensis</i>	211.2
	Shark unsp.		764.6

Notes:

**Barbados:** The large tunas include yellowfin and bigeye tunas. The small tunas include skipjack, blackfin, and frigate tunas.

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

**St. Lucia:** CFRAMP staff are investigating the recorded landings of spotted Spanish Mackerel and bluefin tuna, as these may be cases of species misidentification.

**Guyana:** Data for Guyana are only preliminary at this time.

**All countries:** At present, wahoo catches may include a small amount of king mackerel.