

NATIONAL REPORT OF TRINIDAD AND TOBAGO

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INTRODUCTION

In Trinidad and Tobago the industrial fishery for tuna, billfish and associated species is a pelagic longline fishery, comprising vessels which fish in the Mid to South Atlantic. There are a small number of local vessels and a fluctuating number of Taiwanese and other foreign vessels which use the National Fisheries Company (NFC) as a trans-shipment port.

The inshore artisanal fishery targets small pelagics. These include mackerels [carite (*Scomberomorus brasiliensis*) and kingfish (*S. cavalla*)], frigate tuna (*Auxis thazard*, locally called bonito), dolphinfish (*Coryphaena hippurus*), wahoo (*Acanthocybium solandri*), Atlantic black skipjack (*Euthynnus alletteratus*) and sailfish (*Istiophorus albicans*). Carite and kingfish are the most important small pelagics in Trinidad while wahoo, dolphinfish and sailfish are most important in Tobago. Species of tuna targeted by the offshore longline fishery are also landed. These are recorded as tuna species by data collectors but comprise primarily albacore (*Thunnus alalunga*) and yellowfin tuna (*T. albacares*).

There are four fishing tournaments annually, one of which targets billfish and another kingfish. The incidental catch includes tuna and some small pelagics. In Tobago there are charter boat operations which promote sport fishing and target billfish. This activity is largely 'tag and release'.

This report essentially describes fishing activities during 1993 as well as trends in administration of the fishery and research. It includes data on the number of vessels involved in the fishery for large and coastal pelagics, nominal landings by the industrial fishery at the trans-shipment port, estimates of total landings by the inshore artisanal fishery and catch data from the international and kingfish fishing tournaments. All data (except for the International Game Fishing Tournament held in Tobago) are for landings in Trinidad only.

VESSELS

In 1993 the trans-shipment port was used by 36 vessels, comprising 9 local vessels and 27 foreign vessels (1 Canadian and 26 Taiwanese). Landings by the inshore artisanal fishery are primarily by the artisanal hook and line and gillnet fisheries and number 208 and 432 vessels respectively.

During the 1993 "International Game Fishing Tournament" 45 vessels participated of which approximately 9 were foreign vessels. For the kingfish tournament 22 boats took part. Two charter boats operated during 1993.

Table 1: Trans-shipment (kg) of Large Pelagics (Trinidad & Tobago, 1993)

SPECIES	VESSEL LANDING BY FLAG (KG)			TOTALS
	Taiwanese	Canadian	T&T (Industrial)	
Albacore <i>Thunnus alalunga</i>	639,065			639,065
Bigeye <i>Thunnus obesus</i>	241,938	839	14,848	257,625
Bluefin <i>Thunnus thynnus</i>				0
Skipjack <i>Euthynnus alletteratus</i>	2,058			2,058
<i>Thunnus sp.</i>	317,306		776	318,082
Yellowfin <i>Thunnus albacares</i>	141,086	507	76,944	218,537
SUB-TOTAL	1,341,453	1,346	92,568	1,435,367
Black Marlin <i>Makaira indica</i>	110,646			110,646
Blue Marlin <i>Makaira nigricans</i>	114,868			114,868
<i>Marlin sp.</i>				0
Sailfish <i>Istiophorus albicans</i>	55,119			55,119
Spearfish <i>Tetrapturus pfluegeri</i>	62,196			62,196
Swordfish <i>Xiphus gladius</i>	51,916	3,829	69,396	125,141
SUB-TOTAL	394,745	3,829	69,396	467,970
Blue Shark <i>Prionace glauca</i>	58,300			58,300
Mako Shark <i>Isurus paucus</i>	113,382		165	113,547
<i>Shark sp.</i>	104,214			104,214
Sharkfin	64,764			64,764
Thresher Shark <i>Alopias vulpinus</i>				0
SUB-TOTAL	340,660	0	165	340,825
Cavalli <i>Caranx hippos</i>				0
Dolphinfish <i>Coryphaena hippurus</i>	17,984			17,984
Kingfish <i>Scomberomorus cavalla</i>	141,120			141,120
Yukum	15,832			15,832
Unknown	3,830			3,830
SUB-TOTAL	178,766	0	0	178,766
TOTAL	2,255,624	5,175	162,129	2,422,928

LANDINGS

Nominal landings by the industrial fishery are presented in Table 1 which shows trans-shipment by species by flag. In 1993 landings by this fishery (including sharks) totalled 2,423 metric tonnes. Tuna species accounted for 59.2% of the total with albacore accounting for 44.5% of the tuna. Billfish amounted to 19.3% of total trans-shippments.

With regard to trans-shipment by flag, Taiwanese vessels accounted for 93% of the total which amounted to 2,256 metric tonnes.

Landings by the artisanal fishery are shown in Table 2.

Table 2: Landings of main pelagic species by the artisanal fishery

SPECIES	LANDINGS (tonnes)
Carite <i>Scomberomorus brasiliensis</i>	2130*
Kingfish <i>Scomberomorus cavalla</i>	1051*
Bonito (frigate tuna) <i>Anxis thazard</i>	17 ¹
Tuna <i>Thunnus sp.</i>	29 ¹
Dolphinfish <i>Coryphaena hippurus</i>	1 ¹
TOTAL	3228

* raised estimates ¹ = nominal data

Kingfish are targeted by a number of semi-industrial vessels data from which are not included in this report.

SHARK LANDINGS

Generally up to about 15 species of sharks occur in the landings. Some of these species are landed by both the industrial and artisanal fisheries. Landings are primarily the by-catch of other fisheries.

Nominal landings by the industrial fishery are presented in Table 1.

Approximately 341 metric tonnes of shark including shark-fins were landed by this fishery. Most of the landings recorded are by the Taiwanese component. Landings of sharkfins by local vessels are

not included in the data collected at NFC. It is suspected that shark landed does not represent shark caught by the fishery.

Estimated landings for all species combined by the artisanal fishery for 1993 totalled 440 metric tonnes. This represents a decline in landings compared to the two previous years when estimated landings were 922 metric tonnes and 531 metric tonnes in 1991 and 1992 respectively.

Table 3 below shows the Catch from the International Game Fishing Tournament.

Table 3: Catch (kg) from Recreational Fishery (International Game Fishing Tournament)

SPECIES	1993	
	NUMBER	WEIGHTS (KG)
Yellowfin tuna <i>Thunnus albacarus</i>	10	242
Sailfish <i>Istiophorus albicans</i>	15	370
Blue marlin <i>Makaira nigricans</i>	3	415
Dolphin fish <i>Coryphaena hippurus</i>	74	952
Wahoo <i>Acanthocybium solandri</i>	9	141
TOTAL	111	2,156

In preparation for the tournament 40 tagging kits were distributed to anglers. During the tournament 5 fish were tagged (4 blue marlin and 1 Atlantic sailfish).

During the kingfish tournament 1084 kg of fish were caught. Other species included wahoo, dolphinfish, tuna and sailfish.

TRENDS

In the Fishery

There was a minimal increase in the number of local industrial vessels from 7 to 9. The port at the NFC continues to be the major trans-shipment site for foreign and local industrial longliners, in spite of the problems plaguing its operations. This situation is being closely monitored through the Fisheries Division Office at the Port.

The recent fleet of hook and line vessels targeting coastal pelagics such as kingfish use a number of landing sites. It is therefore difficult to monitor their activities. There is a move toward the implementation of a mandatory logbook system.

In Research

Data have been compiled on weights of individual fish trans-shipped by the industrial fishery for primarily yellowfin tuna, bigeye tuna and swordfish. These will be examined in co-operation with the CARICOM Fisheries Resource Assessment and Management Programme (CFRAMP) with regard to size limits of these species (Singh-Renton and Mahon, 1993).

Stock Assessment is focused on inshore pelagics and sharks. It is hoped that through the (CFRAMP) regional initiative data collection mechanisms will be strengthened in support of this.

Preliminary age-based stock assessment of *Scomberomorus brasiliensis* (Henry & Martin, 1992) indicate that stocks are fully exploited. Management strategies for carite have been proposed in a draft Management Plan (Fisheries Division 1993). Continuing research will lead to finalisation of the management plan including assessment of the most important species of the incidental catch.

About 34 species of sharks have been identified from waters around Trinidad and Tobago. These include two deep water species and five species of hammerheads. Assessment and management oriented shark research is in progress for some species of sharks (for example, *Carcharhinus porosus*, *C. limbatus*, *Sphyrna lewini*, *S. tudes* and *Rhizoprionodon lalandii*). There is concern about the drop in landings over the past three years. The shark research programme is being improved to determine major contributing factors to this as there have been changes in fishing patterns and almost all sharks landed are by-catch of other fisheries.

In Legislation

A project for the upgrading of existing fisheries and related legislation has been implemented with the assistance of the United Nations Food and Agriculture Organization. This will support improved data collection strategies (mandatory logbooks) and implementation of policy related to fisheries development.

REFERENCES

- Henry, C. and L. Martin (1992). Preliminary Stock Assessment for the Carite Fishery of Trinidad. Technical report of the project for the establishment of data collection systems and assessment of the fisheries resources. FAO/UNDP : TRI/91/001/TR10 Port of Spain (Trinidad). July, 1992 : 47p.
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