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ABSTRACT

This paper gives an overview of the recreational fishery of Saint Lucia. Sports fishing operators were interviewed and available data was analyzed. Commercial recreational fishing in St Lucia began in the early 1950's and continues to develop. A number of fishing expeditions are held through out the year with the main clientele being tourists. The number of fishing trips per week greatly depends on the availability of clients. There is one major tournament held at the beginning of October. This month is viewed as the peak of the billfish season. Persons from the wider Caribbean, particularly neighboring countries, come to the island specifically for this tournament. The recreational fishery is proving to be of significant economic value to St Lucia. The main species caught during regular informal competition include dolphin, tuna, kingfish, wahoo, barracuda, and small shark. During the major tournament, however, larger fish such as billfish are targeted.

To date accurate records of catch from this fishery have not been kept. Weights of large billfish are estimated since operators are not skilled in measuring large, live fish. Catch and release is practised especially for sharks, barracuda and billfish under 150-200 pounds. The undersized billfish are tagged before being released. Persons involved in this fishery show great willingness to be trained in appropriate data collection and are eager to work in collaboration with the Department of Fisheries on tagging or other related programs.

Key words: billfish, recreational fishing, tagging, tournament

INTRODUCTION

The marine recreational fishery in Saint Lucia is still in an initial stage of development. However, over the past four years it has become quite obvious that there is great potential within this fishery. During recent years, the popularity of this fishery has increased tremendously and it is proving to be of economic value to St Lucia.

Recreational fishing in St Lucia began in the 1950's and was pioneered by a St Lucian native, William 'Bill' Hackshaw, born in 1910 (Michael Hackshaw,

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per. comm.). At that time fisheries in St Lucia were mainly of the artisanal type and Bill Hackshaw, along with a few friends, got involved in recreational fishing as a sport, rather than as a business. Since then many other persons have become involved in recreational fishing either for sport or as a business. The Hackshaw family (second and third generations) are just one of 5 families depending on this fishery as a means of income, and many other individuals are involved mainly for sport.

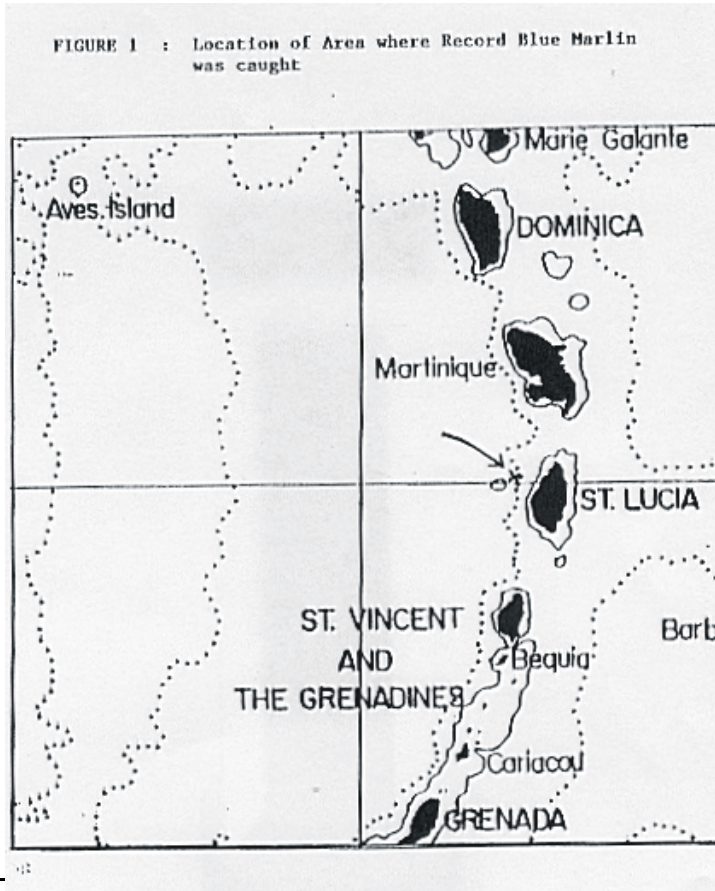
In 1972 a recreational fishing club was formed with about a dozen members and by 1984 this club officially registered as The St Lucia Game Fishing Association (SLGFA) which presently has 66 members (Richard Johnson, per. comm). This association has been responsible for the organization of all fishing tournaments held on the island. Informal tournaments are usually held on national holidays such as Independence Day (22nd February), Whit Monday (23rd May) and National Day (13th December). The major annual tournament is held at the beginning of October.

A number of fishing expeditions are held throughout the year with the main clientele being tourists. The number of trips per week depends largely on the availability of clients. The main species targeted during informal fishing expeditions are dolphin fish, tuna, kingfish, wahoo, barracuda and small shark (Howard Otway, per. comm.). Larger fish such as billfish are targeted during the major annual tournament, although prizes are also awarded for the largest dolphin fish, tuna or wahoo over twenty (20) pounds (Howard Otway, per. comm.). In St Lucia, blue marlin is the most common species of billfish caught with sailfish being less abundant and white marlin being the least common.

The Southern Caribbean record for blue marlin stands at 549 lbs and this record was set by Brian Hamel-Smith of Trinidad and Tobago in 1993 at St Lucia's third Annual International Billfish Tournament (SLGFA, 1994). The record fish being caught just 15 miles west of the weigh station, located at the Rodney Bay Marina (Figure 1). The island's record for white marlin stands at 60 lbs, that of sailfish is 70 lbs, longbill spear fish is 49.75 lbs, tuna is 120 lbs, dolphin fish is 33 lbs and wahoo/kingfish is 63 lbs (SLGFA, 1994). There is no island record for swordfish

which are rarely caught, probably because these fish tend to feed at greater depths while sports fishing in St Lucia mainly uses surface trolling.

In order to conserve St Lucia's billfish stocks, catch and release has recently been started for blue marlin under 150-200 lbs, white marlin under 35 lbs, and sailfish under 35 lbs (SLGFA, 1994). Swordfish under 50 lbs are also released (Howard Otway, per. comm.).



1. Location of area where record Blue marlin was caught.

Figure

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To date, no accurate records of the catch from this fishery have been kept, however persons involved in this fishery show great willingness to be trained in appropriate data collection and are eager to work in collaboration with the Department of Fisheries on tagging or other related programs.

METHODS

Sport fishing operators were interviewed and information on species caught, times and days fished, and available catch data were recorded. All records kept by the SLGFA were analyzed and reviewed. Information available from the St Lucia Tourist Board on the sport fishing industry was also noted.

Catch per unit effort (CPUE) was derived by dividing the total catch (number of fish) by the total fishing time. This was only calculated for the Annual Billfish Tournaments since accurate records on time spent fishing for the rest of the year was not available. Catch includes fishes 1) released, 2) tagged and released, and 3) boated.

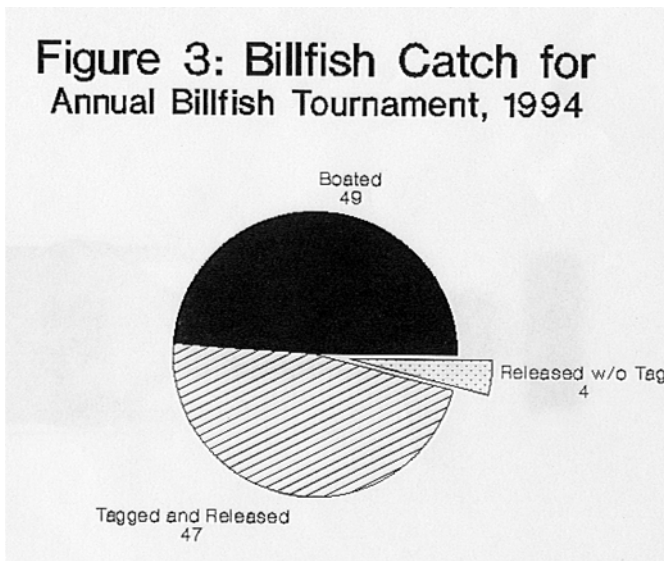


Figure 3. Billfish catch for Annual Billfish Tournament, 1994.

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RESULTS AND DISCUSSION

Catch and Landings Data To date, accurate records of catch from the sport fishery have not been kept. This is not due to any unwillingness of the operators to supply the Department of Fisheries with data, but rather it is due to the lack of a training program for data collection by sport fishermen.

Recently, data collection forms have been designed specifically for sport fishing (Figure 2). These forms will soon be introduced to all sport fishing operators and data will be collected on a monthly basis by the Department of Fisheries. It is hoped that by 1995 a comprehensive data collection system will be in place for this fishery.

Annual International Billfish Tournament an annual fishing competition has taken place since 1972. This competition initially involved mainly local boats with prizes comprising of small trophies and bottles of liquor. In the mid to late 1980's, greater publicity managed to attract boats from a few of the neighboring islands such as Martinique, Grenada, Barbados and St Vincent. By 1990 boats from five islands with a total of 113 anglers had registered for the competition (SLGFA, 1994).

In 1991 the Annual Fishing Competition was upgraded to the Annual International Billfish Tournament. Twenty five boats registered for the first Annual International Billfish Tournament and there was a total of \$11,945.00US in trophies, angler cash prizes and other prizes to be won (SLGFA, 1994). Over the next few years this tournament increased in popularity and in the fourth Annual International Billfish Tournament held 1st-4th October, 1994, 34 boats registered with 166 anglers representing 14 different countries, and \$41,500.00US in trophies, anglers cash prizes and other prizes (Table 1).

During this annual tournament the targeted species are *Istiophorus albicans* (Atlantic sailfish), *Makaira nigricans* (Atlantic blue marlin), *Tetrapturus albidus* (Atlantic white marlin) and *Tetrapturus pfluegeri* (longbill spearfish). *Xiphias gladius* (swordfish) although not specifically targeted, are also sometimes caught.

The sport fishing operators and other persons involved in this fishery recognize its economic and social value, and the SLGFA has gone through great strides to bring this fishery to its present standard. Recently there has been some concern among members of this Association about the billfish population. They claim that commercial longlining activities of neighboring islands and experimental longlining in St Lucia, is causing a rapid decline in the billfish population. Since there is no accurate data on billfish catches before and after the introduction of

Figure 4: Species Composition for Annual Billfish Tournament 1991-1994

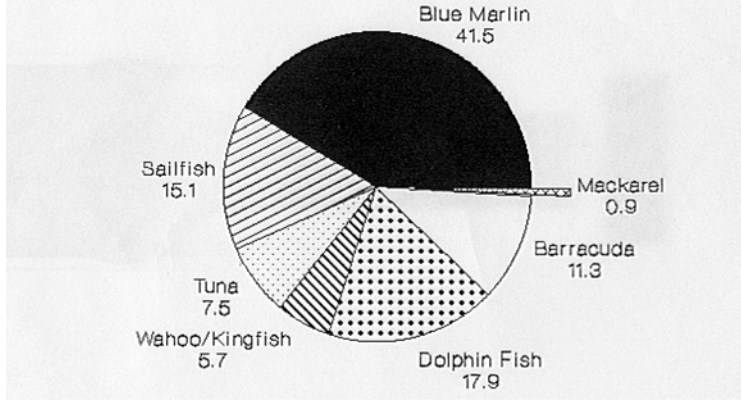


Figure 4. Species composition for Annual Billfish Tournament 1991-1994.

longlining within this region, it is difficult to determine whether or not there is a decline in the billfish population and the cause of this decline. It is expected that over the next few years, data can be collected from this fishery and hence its status can be determined.

Daily Fishing Expeditions Throughout the year, boats are chartered by tourists from sport fishing operators for fishing trips. Most of these tourists are inexperienced in fishing and are out just for the thrill of catching a fish. The targeted species in such cases are mainly small pelagics such as kingfish/wahoo, dolphin fish, barracuda and tuna. More experienced tourists however would tend to target larger pelagics such as billfish (Howard Otway, per. comm.) There is no set time of the year, week or day when these trips are planned. The frequency of fishing expeditions depends mainly on the availability of clientele (Michael Hackshaw and Howard Otway, per. comm.).

Catch and Release Many of the fish caught during sport fishing are released, regardless of the species, even though there are no formal release

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programs on the island. The release of blue marlin estimated to be under 100 lbs was an informal release procedure agreed upon by members of the SLGFA.

Interest in tag and release was generated in August, 1993 when Mr Howard Otway and Mr Bernard Johnson, president and vice president of SLGFA respectively, attended game fishing tournament meetings in St Thomas and Puerto Rico. This interest led to the first tagged and released blue marlin on the last day of the St Lucia's third Annual International Billfish Tournament, 1993 off a boat owned by Bernard Johnson. As of September, 1994, 32 billfish had been tagged and released (Jodi Rice, per. comm.). In October, 1994 during the fourth Annual International Billfish Tournament 21 billfish were tagged and released, and 2 were released without tags (this represented 51% of the total catch (Figure 3)). The billfish tags used are purchased from The Billfish Foundation, Fort Lauderdale, Florida, U.S.A. The SLGFA is hoping to get involved in other tagging programs.

ECONOMICS

Currently there are 19 sport fishing boats in St Lucia (Table 2). Eleven of these boats are involved in commercial sports fishing year round, while the remainder get involved in this fishery mainly during tournaments and informal competition. Presently there are no records of the annual benefits to the local economy from sport fishing, however, the St Lucia Tourist Board will begin calculating and recording such benefits in the near future.

The estimated yearly average for operating expenses per boat is about \$84,300.00US (Table 3). Boats are chartered through out the year for daily fishing trips at a cost of \$600-\$800US per trip.

Sport fishing appears to be a great attraction to tourists since recently one of St Lucia's major hotels has become interested in creating a new holiday package for tourists that would include fishing expeditions (Howard Otway, per. comm.). This hotelier expects such a holiday package to be a major attraction and thus help to increase hotel room occupancy during the low season, which falls between March and August inclusive each year.

Sport fishing is a growing industry in St Lucia and its full economic potential is yet to be realized.

LITERATURE CITED

SLGFA, 1994. Records of the St Lucia Game Fishing Association-1972 to 1994. P.O. Box 281, Castries, St Lucia, West Indies.

ACKNOWLEDGEMENTS

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Table 1. Summary of data for Annual Billfish Tournaments 1991-1994.

YEAR	Number of Anglers	Number of Boats	Number of Countries	Value of Prizes (US)
1991	Not recorded	25	7	11,945
1992	83	15	7	23,900
1993	110	23	10	34,445
1994	166	34	14	41,500

Table 2. St. Lucian Sport Fishing Boats.

BOAT NAME	MAKE OF BOAT	LENGTH (ft)
Annie Baby	Silvretton	30
Reel Affair	Bertrum	33

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Flying Fish	Tracker	17
Freedon	Bertrum	31
Bacchanal Lady	Bertrum	31
High Time	Bertrum	26
Rough Rider	Donzi	25
Grey Ghost	Bertrum	44
Sea Hunter	Bertrum	38
Blue Boy	Bertrum	31
Great White	Bertrum	31
Little Boy	Bertrum	46
Patti	Bertrum	26
Trivial Pursuit	Aquastart Ocean Ranger	38
Cashan	Tiara	22
Sunsplah	Blackfin	32
Havoc	Bowen	28
Topless	Silverton	30
Sterges	Longliner	45

Table 3. Estimated Yearly Operating expenses per Boat. An average of 14 days fishing per month were used in calculations.

EXPENSES	YEARLY COST (US)
Dockage and Utilities	3,300

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Fuel	60,000
Maintenance	21,000
Total	84,300

Table 4. Estimated Charter Guest Expenses for Annual Billfish Tournament. Assuming 4 persons for the 3 day tournament.

EXPENSES	COST/PERSON (US)
Board and Lodge	600
Participation Fees	350
Transportation	240

Table 5. Billfish Catch and effort Information for Annual Billfish Tournament 1991-1994.

YEAR	1991	1992	1993	1994
TAGGED	0	0	1	21

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BOATED	20	9	9	22
RELEASED	1	1	4	2
TOTAL	21	10	14	45
HOURS	28.5	28.5	28.5	28.5
CPUE*	0.74	0.35	0.49	1.58
BOATS	25	15	23	34

*CPUE = Catch per unit effort (total/hours)