

Kenyan sports fishing Sailfish Catches



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Background information on the data

- IOTC-OFCF Co-operation
- OFCF visit in Feb 2006 (Sakonju-san & Fujiwara-san)
- Historical sport fishing data in Malindi and Watamu
- Implemented a project for computerization of historical data from sport fishing clubs
- Sport-fishing database was developed
- Data computerized from 1987 to 2006
- An average of 1200 trips undertaken annually
- 50% of the catches are Sailfish

Description of the fishery

- Worldwide, sailfish are important species for the anglers
- The exploitation of large pelagic fishes regionally has been on the increase reaching the peak in 2005
- This paper tries to look at the catches of the sailfish within the period that commercial exploitation of the large pelagic in the western Indian Ocean has been on the increase and try to derive some index of abundance alongside other fisheries

Fishery cont'd

- Coastline stretches for 640km
- Most sports fishing activities are at Malindi
- The northern Kenya bank represents the busiest area

Two seasons

- Southeast monsoon winds (April to September)
- Northeast monsoon winds (October to March)

Data Collected

date, name of boat, species, number, weight, and remarks (tagged, released, or retained)

Malindi/Kilifi Sports fishing Grounds

LAMU

TANA RIVER

MALINDI



North Kenya Banks

Legend

- FISHING POINTS/ Events
- Major Rivers

0 1 2 4 6 8 Nautical Miles

She Shale

Sabaki

Malindi Harbour Malindi

Casuarina

Leopard Reef

Boiling Pot Boiling Pot Boiling Pot Casuarina Ledge

Wahoo Ville Top Banks Bonito Rip Casuarina Ledge

Mountains Mountains North Ledge

South Outer Mountains North Ledge

South Outer Mountains South Mrima

South Mrima

Main Ledge

Haggard Mountains

KILIFI

Activities during the seasons



FISHING

Fishing operation

Day fishing takes **8** hours

Overnight fishing **28** hrs

Crew Size **2** to **4**

Most use artificial lures

Vessel characteristics

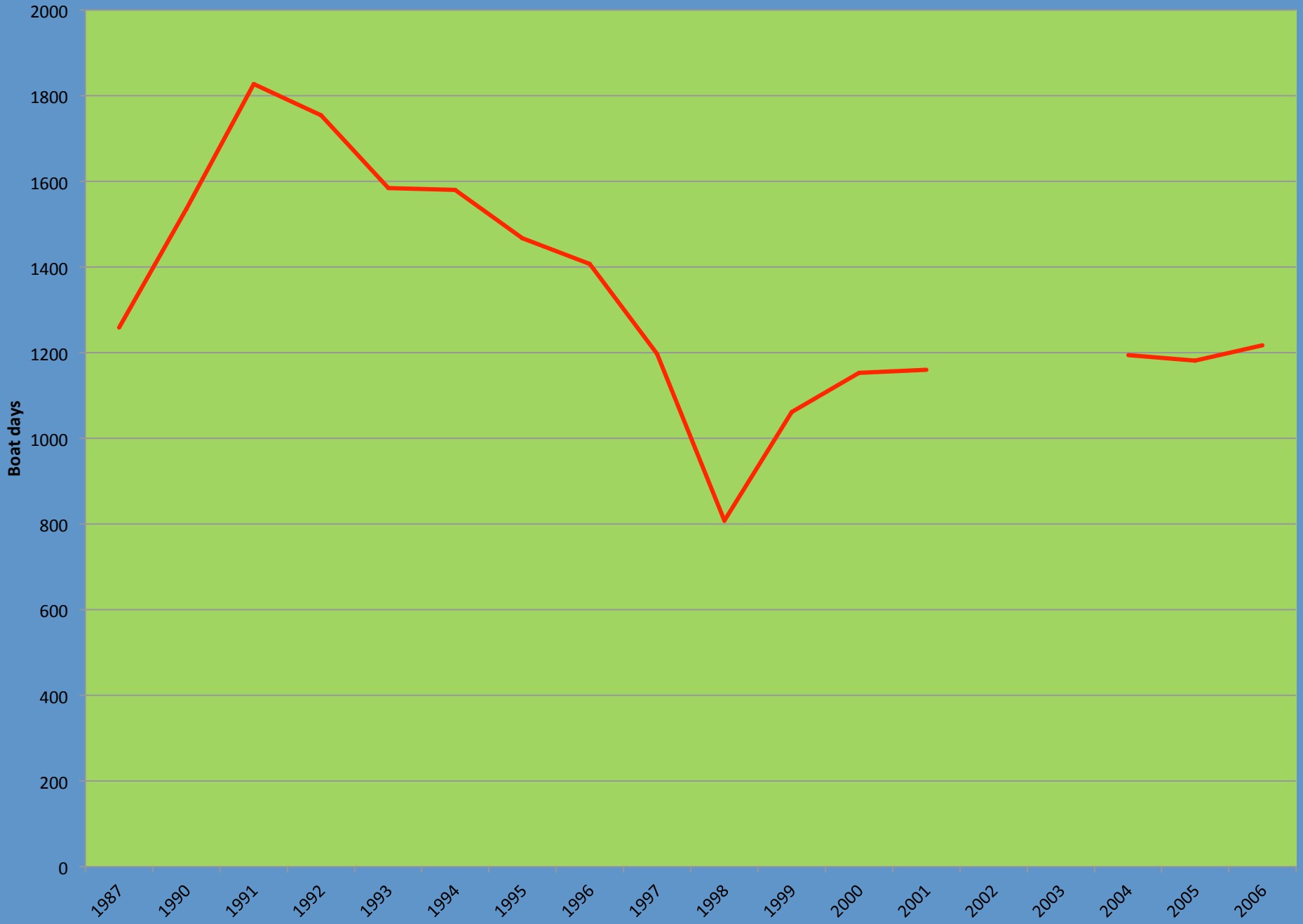
Twin outboard engines most
170 hp

Inboard engines **250** to **900** hp

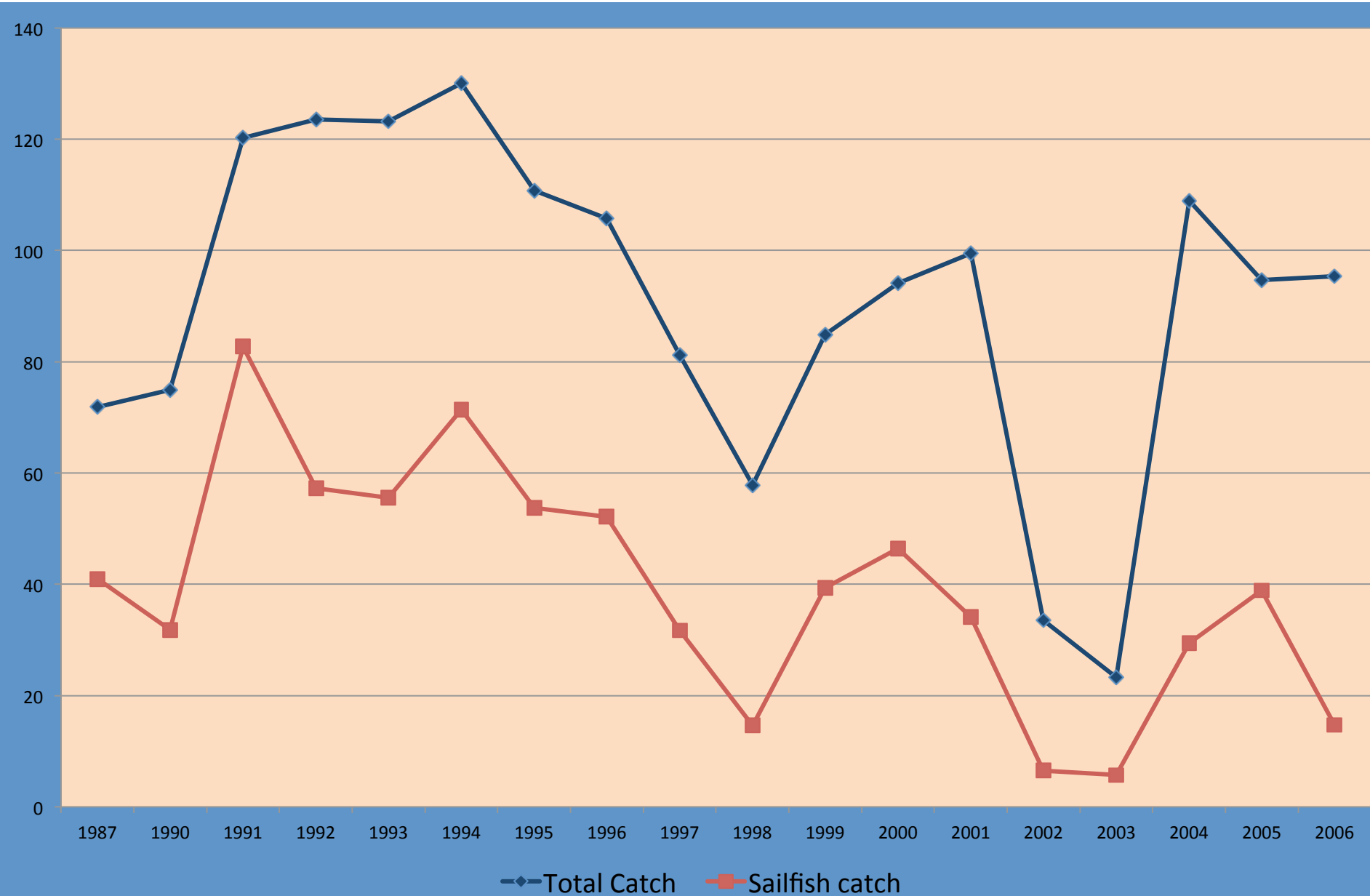
Lengths **7** to **11** m

Year	D a t a available	No. of trips	Total Catch in No.	Total Weight in Kgs.	S a i l f i s h Catches in No.	S a i l f i s h weight in No.	% of the total catch in Weight
1987	Jan- Dec	1,259	7,918	71,865	1,612	40,979	57
1990	Jan- Dec	1,536	10,317	75,002	1,287	31,830	42
1991	Jan- Dec	1,827	12,753	120,222	3,478	82,680	69
1992	Jan- Dec	1,755	13,358	123,502	2,409	57,303	46
1993	Jan- Dec	1,585	10,696	123,231	2,109	55,590	45
1994	Jan- Dec	1,581	12,742	129,991	2,786	71,455	55
1995	Jan- Dec	1,468	12,404	110,764	2,223	53,750	49
1996	Jan- Dec	1,408	11,979	105,745	2,107	52,088	49
1997	Jan- Dec	1,198	8,459	81,174	1,266	31,717	39
1998	Jan- Dec	808	7,712	57,891	598	14,575	25
1999	Jan- Dec	1,061	9,936	84,922	1,544	39,379	46
2000	Jan- Dec	1,153	8,978	94,137	1,841	46,449	49
2001	Jan- Dec	1,161	8,384	99,491	1,337	34,063	34
2002	Jan- Jun	471	4,191	33,528	242	6,514	19
2003	Dec	157	1,452	23,213	228	5,735	25
2004	Jan- Dec	1,195	10,353	108,982	1,123	29,394	27
2005	Jan- Dec	1,182	10,553	94,680	1,486	38,934	41
2006	Jan- Dec	1,218	8,331	95,314	581	14,761	15

Effort (Boat days)

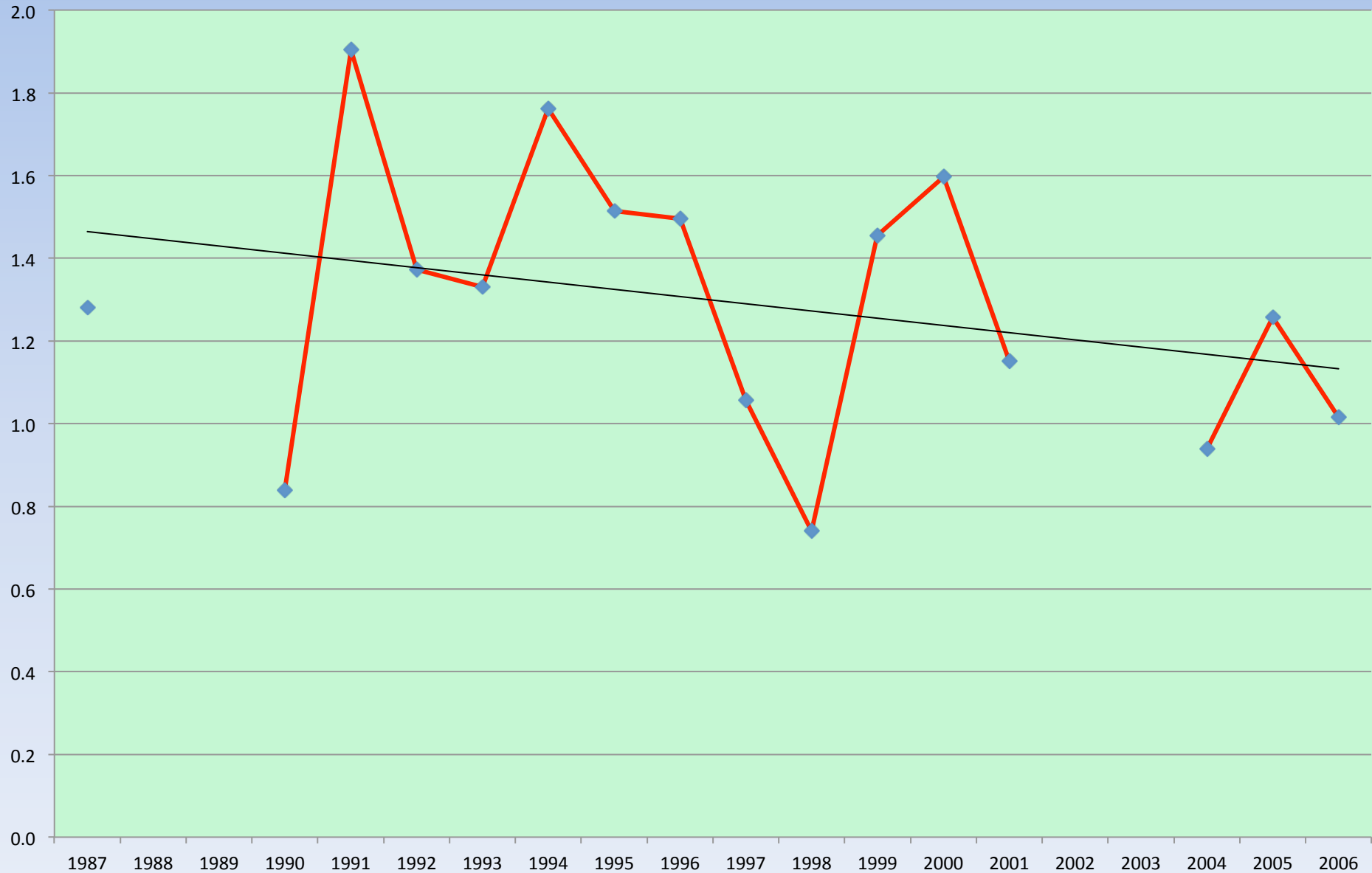


Sailfish catches against total catch in tons

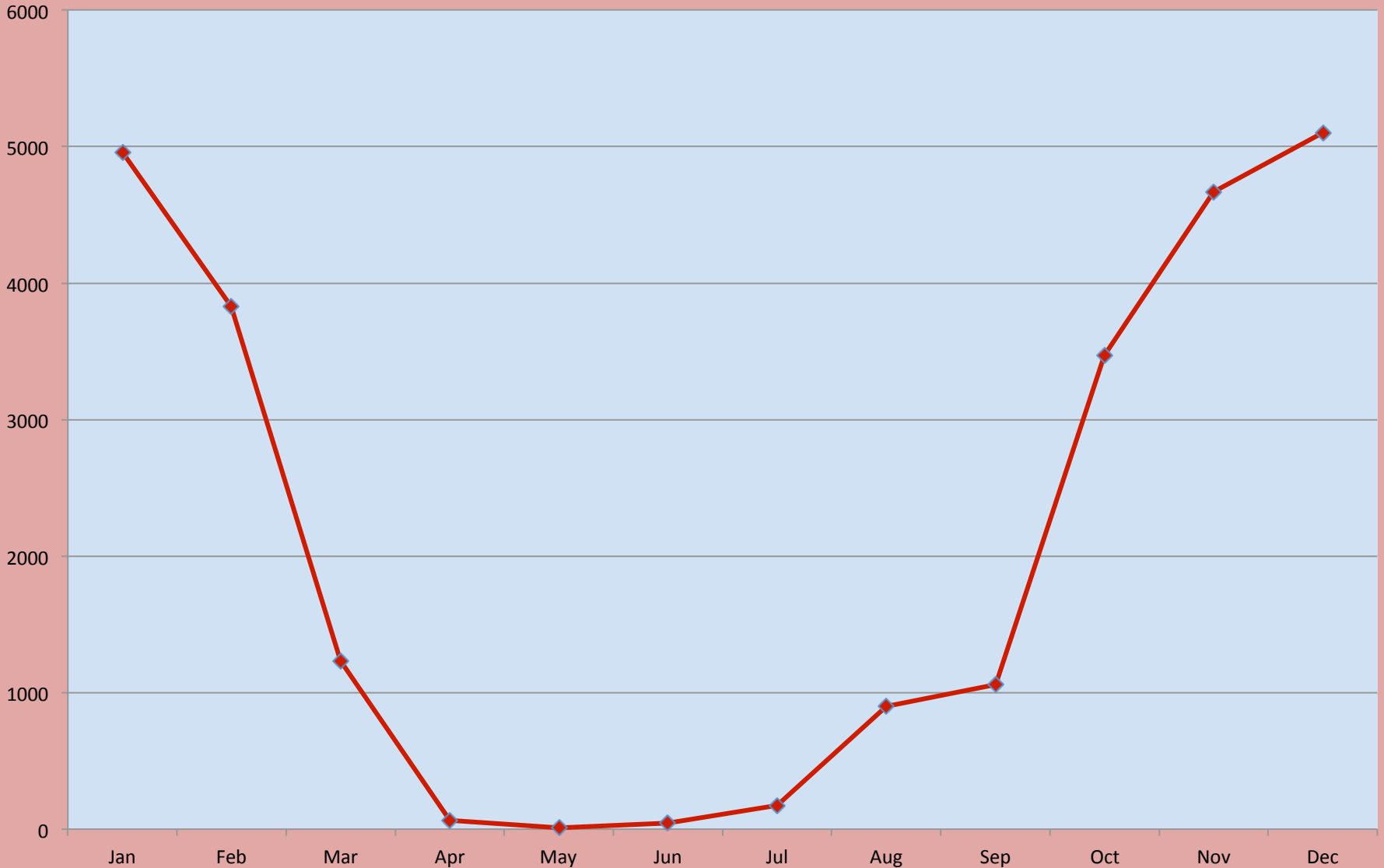


Nominal CPUE

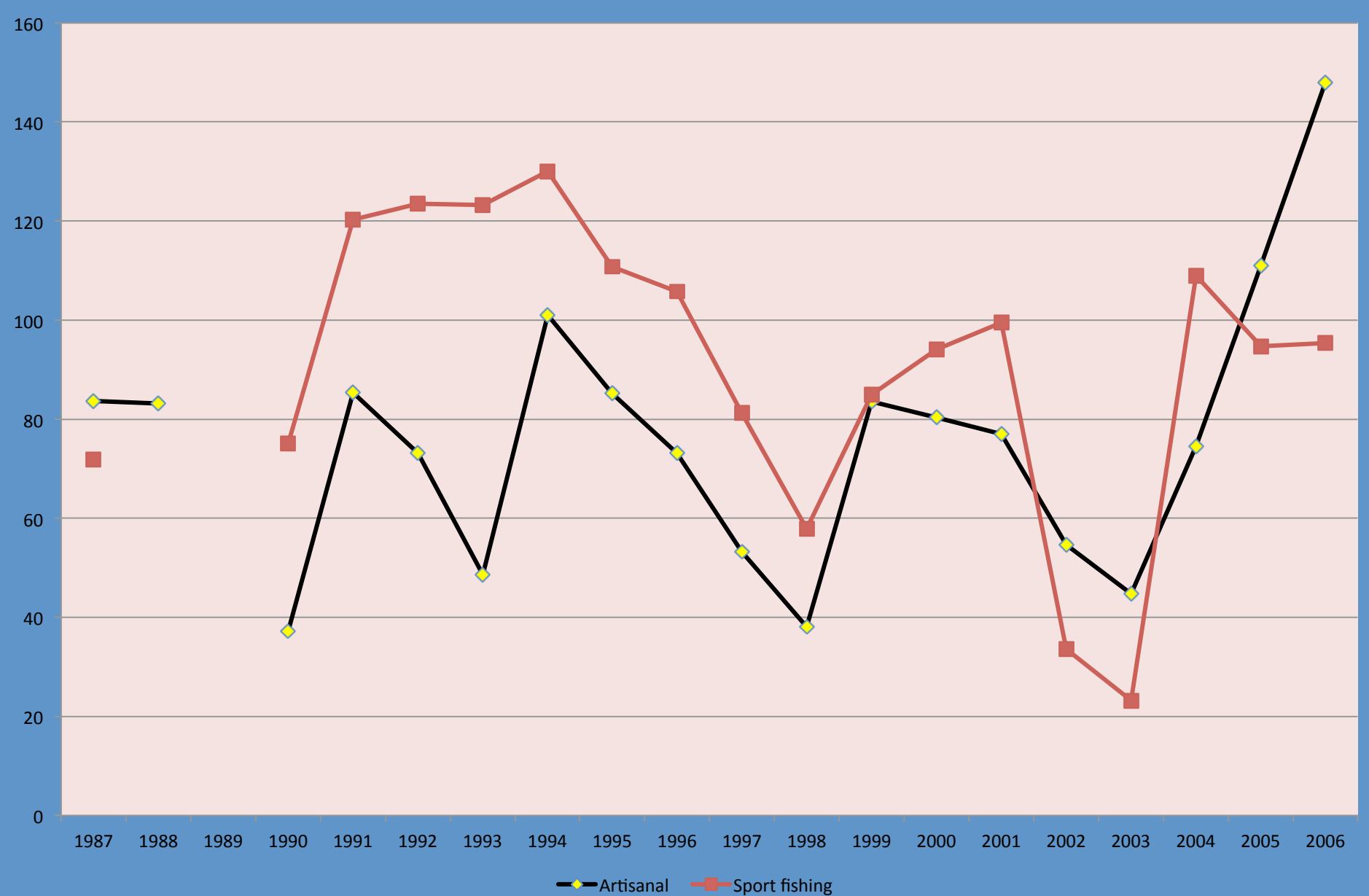
Sailfish Catch in No. per trip



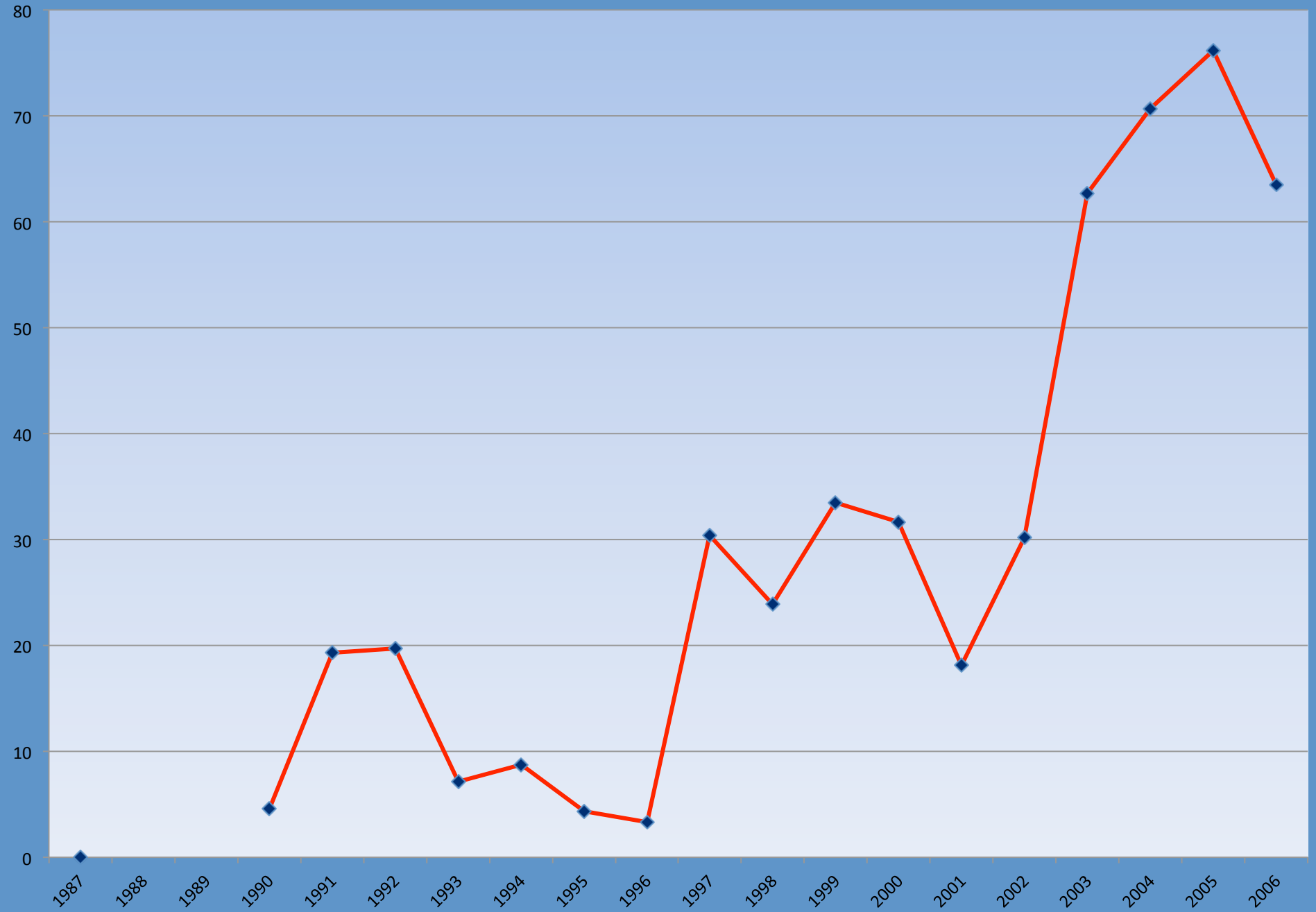
Monthly Sailfish Catches in Numbers for 18 years



Comparison between artisanal & sportsfishing catches



% Catch tagged



% tagged monthly



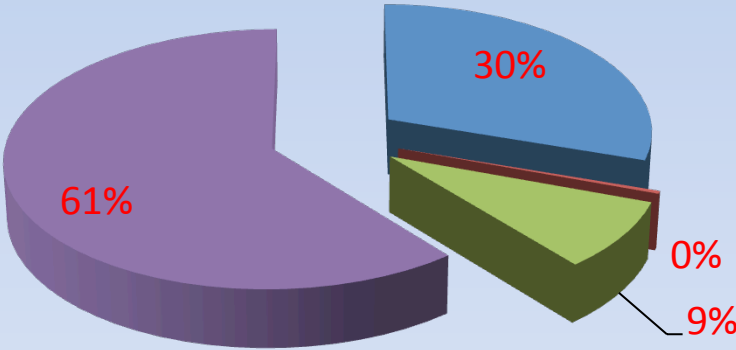
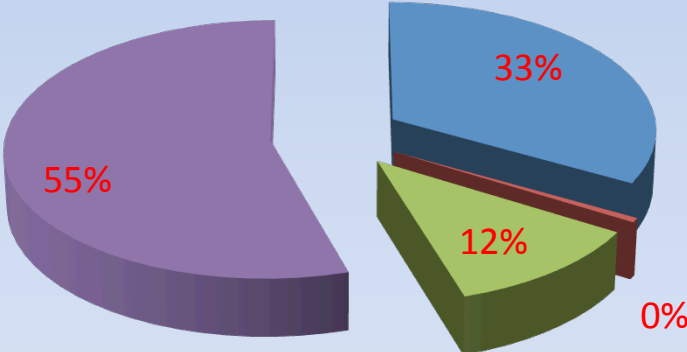
Average weight in Kgs



Quarterly catches over the years

1987 & 1990

1991 to 1994

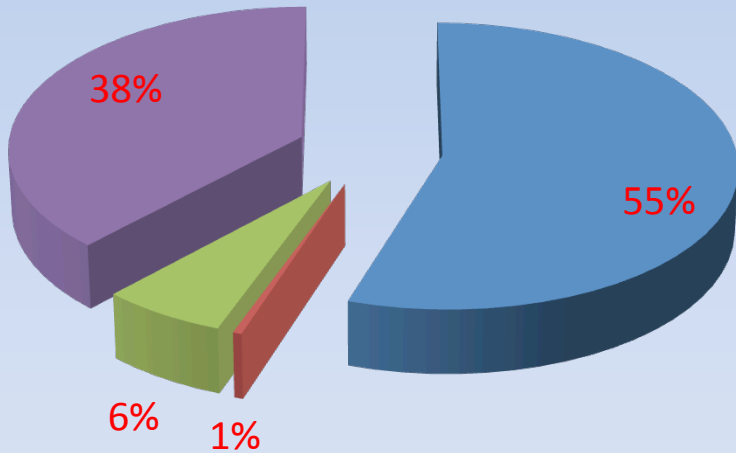


■ 1st Q ■ 2nd Q ■ 3rd Q ■ 4th Q

■ 1st Q ■ 2nd Q

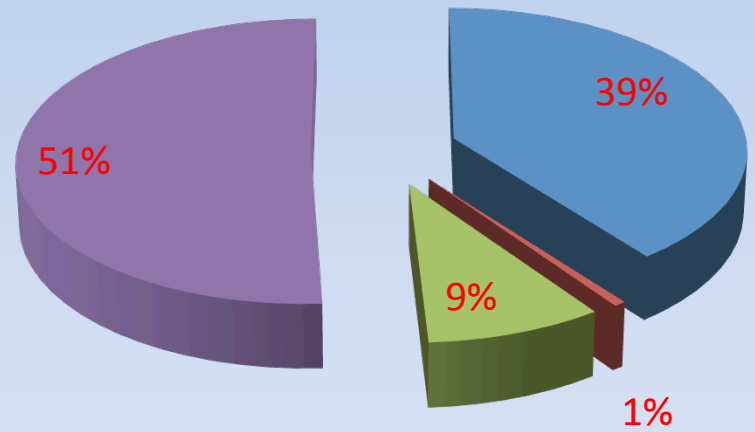
Quarterly catches cont'd

1995 to 2000



■ 1st Q ■ 2nd Q ■ 3rd Q ■ 4th Q

2001 to 2005



■ 1st Q ■ 2nd Q ■ 3rd Q ■ 4th Q

Conclusion

- It would be worth exploring the possibility of deriving indices of abundance from the information available as those may prove very useful in future assessments of the stock of sailfish, in combination with indices of abundance derived from other fisheries
- Need for additional information on the history of the fishery, through interviews to sport fishermen

Future Plans

- Compilation and computerization of additional data from the sport fishing clubs
- Improvement of the current database
- Training of the sport fishing club staff on data entry
- Carry out biological sampling
- Lunar rhythmicity on catches and the widely accepted belief held by recreational fishers that lunar phase has an influence on angler success
- Fleet should be partitioned according to the directed effort



Ahsante Sana

Thanks