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**SEVENTH SESSION OF THE SCIENTIFIC COMMITTEE****MAHÉ, SEYCHELLES, 8-12 NOVEMBER 2004****NATIONAL REPORT. 2004 UE-SPAIN**

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**1. General Fisheries Statistics**

Since the beginning of the tropical tuna Spanish fishery in 1984, data of catch and effort have been collected by a logbooks system created to get information on the fleet in the Indian Ocean. Sampling of sizes landed has been conducted under the control of experts of the Instituto Español de Oceanografía (IEO) and Spanish Fishing Agency in close collaboration with the Seychelles Fishing Authorities (SFA) and the IRD's scientist team. Since the beginning of the 90's a Spanish expert on fisheries has been permanently based in Mahe, Seychelles Islands, in order to monitor "in situ" this fishery.

The Spanish surface longline fishery targeting swordfish (*Xiphias gladius*) started its activity in the Indian Ocean in the mid-nineties. The basic data for the scientific monitoring of this fleet have been collected by logbooks and an observer program that provide detailed information on the activities of the fleet and biological information on the individual swordfish caught.

**1.1. Purse seine fishery****1.1.1 Fishing vessels**

Table 1 shows the carrying capacity (in tons) and number of boats by category of the Spanish purse seine fleet from 1984 to 2003, together with the number of supplies used in association with Spanish boats and the number of vessels fishing in association with supplies between 1984 - 2003. In 2003, 18 Spanish purse seiners fished in the area, same number that in 2002.

**1.1.2 Fishing effort**

Table 2 show the nominal effort in fishing days and searching days. After the higher level of the last nineties, since 2000 the nominal effort has been reduced and remind stable. In 2003 the fishing effort (4468 f.d) is similar to the 1994 level.

**1.1.3 Catch**

Table 3 shows the total yearly catches by species. The total catch in 2003 has reached 176,200 t (156,386 t in 2002), the biggest catch of the whole period. The important increase in catches in 2003 has been mainly due to the dramatic increase in the yellowfin catch (78,968 t.) a 48% higher than the 2002 catch. On the contrary the skipjack's catch in 2003 (88,035 t.) has been lower than the 2002 catch (91,462 t.) as well as the bigeye's catch, 8,544 t. in 2003 against 11,096 t. in 2002.

## **1.2. Longline fishery**

### **1.2.1 Fishing vessels**

After some exploratory trips in 1993 and 1994 and sporadic fish in 1995 to 1997 the number of Spanish longliners fishing in the Indian Ocean increase to 8 or 10 in the most recent period (1998-2002). However only two vessels were fishing in this Ocean in a permanent way and others were moving between oceans through the year. During 2002 and 2003 the number of vessels were 16 and 19 respectively mainly fishing in the Indian Ocean.

The vessels ranged from 27 to 42 meters in length and their technical characteristics averaged 210 TRB and 693 HP. The type of gear used was the "traditional" Spanish longline but since 2001 the 'american' longline style (Florida style modified) was introduced with a mean number of hooks used per set of 1151, considerably fewer than the number of hooks used in the "traditional" Spanish longline style.

### **1.2.2 Fishing effort**

Figure 1 shows the spatial distribution of the average nominal effort (number of hooks) during the year 2002.

### **1.2.3 Catch**

From the year 1998 up to the 2001 the captures oscillated between 1.000 and 2.000 t (round weight), in areas of the west Indian Ocean. Although the activity of this fleet in previous years was restricted to areas western of 80°E, an expansion to eastward reaching 95° E during the year 2002 was observed. In the mid 2003 four of the vessels began prospecting the fishery of this resource in the South Eastern areas reaching 110° E. Catch in 2002 and 2003 were 3 502 t and 4289 t (round weight), respectively.

## **2. Report on the implementation of recommendations of the Scientific Committee**

All national research programs include as part of their objectives the main recommendations made by the Scientific Committee in research and statistics.

In particular, in 2004 a logbook system has been established for the supply vessels in order to get detailed information on its activities.

## **3. National Research Programs currently in place**

### **3.1. Purse seine**

The European Union has initiated a Data Collection and Management Programme for the period 2002 – 2006. This programme is aimed at procuring information on catch, effort and biological parameters of all the fisheries undertaken in European waters and/or by fleets flying the flags of community countries. Within this programme, a number of trips were covered by observers on tuna purse-seiners, both in the Indian and Atlantic oceans, so as to obtain information about tuna discards and species associated with these fisheries, namely cetaceans, sharks, swordfish, and turtles. Although the observer programmes are national, that is, performed independently by each country, the programme project: definition of forms, selection criteria, training course content, trip planning, etc, has been carried out in a coordinated fashion between both European countries with a tropical purse-seine fleet (France and Spain), and through their corresponding research institutes (IRD, IEO and AZTI).

In 2004 the collection of purse seine fishery and size data have continued as well as the biological sampling program (sex ratio, maturity) in the Seychelles cannery started in 2003.

To estimate the by-catch associated with the purse seine fishery, a total of 7 trips have been covered by observers in the Indian Ocean in 2003 and 9 trips in 2004 until now.

### **3.2. Longline**

The billfish working party have considered among its top priorities the swordfish research and assessment. Because of this the IEO have established priority to research systems to help on this activities, providing annually high representative and high quality information on this species, although the activity of the Spanish fleet in the area is relatively minor in relation with mayor player. Additionally, a specific research project have been also established to obtain scientific estimations of by-catch species, considering that the quality of the final estimations are, at least at scientific level, more important than the annual and formal date's compliance. In previous papers (see IOTC WP/DCS/01/02) it was provided detailed information, at species level, of all by-catch species, including tunas, billfish and sharks, for the period 1993 (first year of fishery) to the year 2000. The updated by-catch estimations are planned to be also analysed in a similar multi-annual scope in order to develop appropriate methods to achieve the most accurate estimations possible by species, for the most recent years.

Regarding the swordfish the collecting of statistics and biological data, including sex ratio and gonad index, have continued in 2003 through both the logbook system and the observer program. A total of 34669 swordfish have been measured. This number represents 46% of all fishes caught.

The traditional opportunistic tagging program of swordfish and other associated species as sharks and billfishes carried out by observers and fishermen has tagged since the beginning of the fishery 339 swordfish (159 in 2003) and 498 individuals of associated species (219 in 2003).

#### **4. Any other relevant information**

Thirteen documents have been presented to the different working parties: WPTT-04-02, WPTT-04-08, WPTT-04-11, WPTT-04-12, WPTT-04-13, WPTT-04-14, WPTT-04-24, WPTT-04-INF02, WPTT-04-INF03, WPTT-04-INF05, WPB-04-05, IOTC-SC-04-INF03 and IOTC-SC-04-INF05.

Class	50-400	401-600	601-800	801-1200	1201-2000	>2000	total	C.Cap.	Supp	VAS*
1984	-	-	2	5	5	0	12	5343	-	-
1985	-	-	2	5	7	0	14	9142	-	-
1986	-	-	2	5	3	0	10	8793	-	-
1987	-	-	2	4	6	0	12	10504	-	-
1988	-	-	2	6	8	0	16	14361	-	-
1989	-	-	3	8	9	0	20	20050	-	-
1990	-	-	3	8	9	0	20	17908	-	-
1991	0	0	3	6	8	0	17	16568	-	-
1992	0	0	1	6	11	0	18	16711	-	-
1993	0	0	1	6	11	1	19	18953	-	-
1994	0	0	2	4	11	1	18	18779	-	-
1995	0	0	2	5	11	1	19	20908	-	-
1996	0	0	2	6	13	1	22	24090	-	-
1997	0	0	2	6	14	1	23	26128	-	-
1998	0	0	2	6	12	0	20	21243	-	-
1999	0	0	2	6	12	0	20	20260	6	7
2000	0	0	1	7	9	0	17	19473	7	9
2001	0	0	1	7	9	0	17	20479	5	5
2002	0	0	1	6	10	1	18	20490	8	9
2003	0	0	1	6	9	2	18	21007	5	5

(\*) Vessel associated with supply

Table 1. Number of Spanish Purse seiners by category, carrying capacity in tons, number of supplies used in association with spanish boat and number of vessels fishing in association with supplies 1984 - 2003.

YEAR	F.DAYS	S.DAYS
1984	1713	1432
1985	2846	2379
1986	2634	2161
1987	2938	2300
1988	3331	2613
1989	5164	4241
1990	5006	4205
1991	4325	3544
1992	4296	3591
1993	4565	3842
1994	4463	3771
1995	5221	4470
1996	5793	4925
1997	6407	5584
1998	5644	4888
1999	5224	4496
2000	4526	3825
2001	4940	4214
2002	4570	3889
2003	4468	3671

Table 2. Nominal fishing effort in fishing days, searching days and standardized fishing days of the purse seine Spanish fleet (1984 – 2002).

CATCH ON FREE SCHOOL BY SPECIES					
YEAR	YFT	SKJ	BET	ALB	TOTAL
1984	9338	3251	478	197	13264
1985	13145	6178	644	145	20112
1986	14265	8921	572	0	23758
1987	15657	12987	2208	4	30856
1988	31370	9594	3232	65	44261
1989	25151	26818	2043	0	54012
1990	31939	12606	2492	105	47142
1991	34123	7883	2257	1011	45289
1992	24110	9638	520	1455	35724
1993	33860	14432	2664	904	51861
1994	30306	18536	1807	1734	52383
1995	28815	13054	1953	531	44353
1996	33435	20332	1977	814	57786
1997	22807	8673	1243	966	33898
1998	16522	9224	2683	250	28679
1999	17186	10826	1732	231	29976
2000	20024	9225	2050	367	31753
2001	28712	11382	1526	335	41974
2002	28494	7398	1530	212	37668
2003	46160	14746	2954	517	64403

Table 3. Spanish purse seiners total catch by species in the Indian Ocean, 1984-2002.

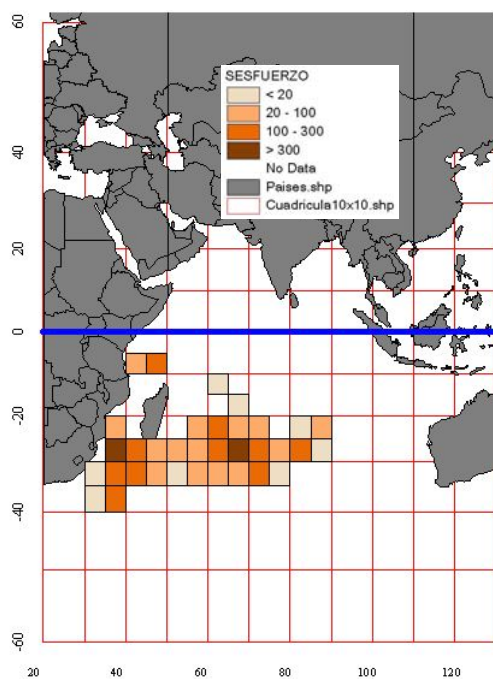


Figure 1. Nominal effort (in thousand of hooks) per 5°x5° square, for swordfish caught by the Spanish longline fleet, during the year 2002.