

NATIONAL REPORT. 2003 UE-SPAIN

Instituto Español de Oceanografía – IEO
Instituto Tecnológico, Pesquero y Alimentario - AZTI

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 Atlantic 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 follow "in situ" this fishery.

The Spanish surface longline fishery targeting the 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 2002, together with the number of supplies used in association with Spanish boats and the number of vessels fishing in association with supplies between 1984 - 2002. In 2002 a total of 18 Spanish purse seiners fished in the area.

1.1.2 Fishing effort

Table 2 show the nominal effort in fishing days and searching days. Since 1995 the nominal effort has been stable.

1.1.3 Catch

Table 3 show the total yearly catches by species. The total catch in 2002 has reached 156,386 t (124,389 t in 2001), the biggest catch of the whole period. At a species level, skipjack has been the main component of the catch with 91,462 t. in 2002 (68,346 t in 2001), while yellowfin tuna reached 53,205 t (47,571 t in 2001) and bigeye 11,096 t (7,930 t in 2001).

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 are fishing in this Ocean in a permanent way. Other vessels moved between oceans through the year.

The vessels ranged from 27 to 42 meters in length and their technical characteristics averaged 210 TRB and 693 HP. The mean number of hooks used per set is 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 period 1993-2000.

1.2.3 Catch

The average level of capture from the beginning of the fishery until the present time is about 900 t. From the year 1998 up to the 2001 the captures oscillated between 1.000 and 2.000 t (live weigh), in areas of the west Indian Ocean. Catch in 2002 was 3 502 t (live weigh).

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.

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 of observers on tuna purse-seiners were carried out, in both 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 (AZTI, IEO and IRD). In 2003 the collection of purse seine fishery and size data have continued and a new biological sampling program (sex ratio, maturity) in the Seychelles cannery have started.

To estimate the by-catch associated with the purse seine fishery, 8 trips have been covered by observers in the Indian Ocean in 2003 and during this month a new observer trip will be carried out. The Spanish scientists have also participated in the three tagging cruises conducted as part of the TAGFAD and FADIO research programs funded by the EU.

3.2. Longline

Regarding the longline fishery the collecting of statistics and biological data, including sex ratio and gonad index, have continued in 2002 through both the logbook system and the observer program. A total of 28000 swordfish have been measured. This number represents 45% 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 continued in 2003.

4. Any other relevant information

Eight documents have been presented to the different working parties: WPTT-03-12, WPTT-03-13, WPTT-03-14, WPTT-03-15, WPTT-03-16, WPTT-03-24, WPB-03-03, WPB-03-04, WPDCS-03-04.

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

(*) 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 - 2002.

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

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

TOTAL CATCH BY SPECIES					
YEAR	YFT	SKJ	BET	ALB	TOTAL
1984	11453	6393	759	197	18802
1985	18431	18643	1330	145	38549
1986	20030	19108	1845	0	40983
1987	26301	27936	4974	4	59215
1988	44948	39742	6810	65	91565
1989	41146	64003	5863	0	111012
1990	43728	47926	4867	145	96666
1991	44023	41790	6005	1066	92923
1992	37836	46694	3638	1461	89629
1993	47792	51272	5418	904	105385
1994	43128	61608	5924	1773	112433
1995	65143	69587	12233	561	147524
1996	59431	66276	11374	826	139134
1997	60977	62914	15897	1029	141025
1998	38565	58646	11245	269	108725
1999	51875	74285	16034	232	142426
2000	52070	77187	10769	410	140872
2001	47571	68346	7930	339	124389
2002	53205	91462	11096	217	156386

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

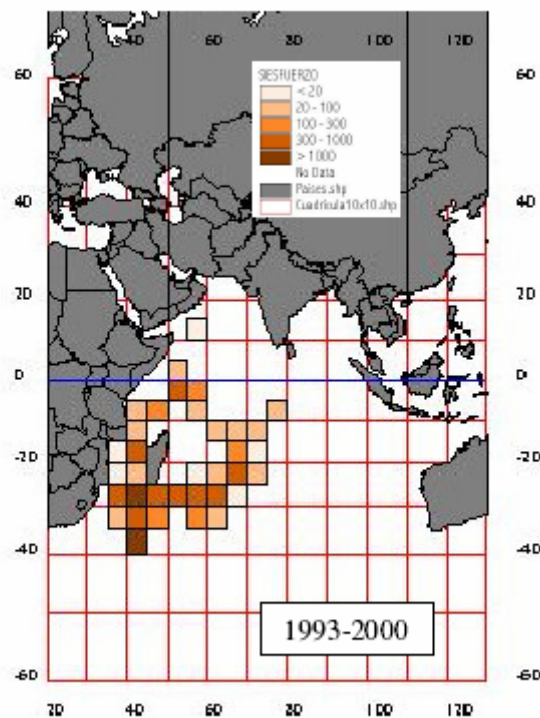


Figure 1. Nominal effort (in thousand of hooks) per 5°x5° square, for swordfish caught by the Spanish longline fleet using the 'traditional' longline style, for the period 1993-2000 combined.