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**ANNUAL REPORT TO THE COMMISSION  
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

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**WCPFC-SC8-AR/CCM-05**

**EUROPEAN UNION**

## **1.- PURSE SEINE**

### **1.1.- Annual catch and effort by primary species in the WCPFC Convention Area.**

Fishing vessels operating in the eastern Pacific Ocean have 100% coverage of onboard observers, in line with the Agreement on the International Dolphin Conservation Program (AIDCP). Although this agreement applies to vessels operating in the IATTC convention area, the four EC-flagged purse seiners operating in the Pacific Ocean have carried out their activity in both the IATTC and WCPFC Convention Areas during 2011, and have carried observers of the APICD in c. 70% of the trips. Information from trips not covered by observers of the APICD is obtained from logbooks. Total catches reported by the observers and logbooks, catches to the east of 150°W and discards of the three main target species during 2011, as well as in previous years, are shown in Table I.

	<b>2011</b>			
	<b>WCPFC</b>	<b>WCPFC east of 150°W</b>	<b>Discards</b>	<b>No. Sets</b>
<b>BET</b>	7367	72	18	
<b>SKJ</b>	27907	507	97	593
<b>YFT</b>	4177	112	4	

	<b>2010</b>				<b>2009</b>			
	<b>WCPFC</b>	<b>east of 150°W</b>	<b>Discards</b>	<b>No. Sets</b>	<b>WCPFC</b>	<b>east of 150°W</b>	<b>Discards</b>	<b>No. Sets</b>
<b>BET</b>	4912	4	36		3817	35	50	
<b>SKJ</b>	20520	53	258	446	19712	198	1026	417
<b>YFT</b>	4041	21	9		3071	22	62	

	<b>2008</b>				<b>2007</b>			
	<b>WCPFC</b>	<b>east of 150°W</b>	<b>Discards</b>	<b>No. Sets</b>	<b>WCPFC</b>	<b>east of 150°W</b>	<b>Discards</b>	<b>No. Sets</b>
<b>BET</b>	5865	97	114		3282	175	45	
<b>SKJ</b>	25277	664	575	434	15377	699	169	415
<b>YFT</b>	4779	94	20		4428	97	5	

**Table I.-** Total catches (in metric tonnes) of BET, SKJ and YFT from EC-Spain purse seiners in the WCPFC convention area, in the WCPFC-CA east of the 150°W meridian, estimated discards and number of sets during the last 5 years.

## 1.2.- Number of vessels by size

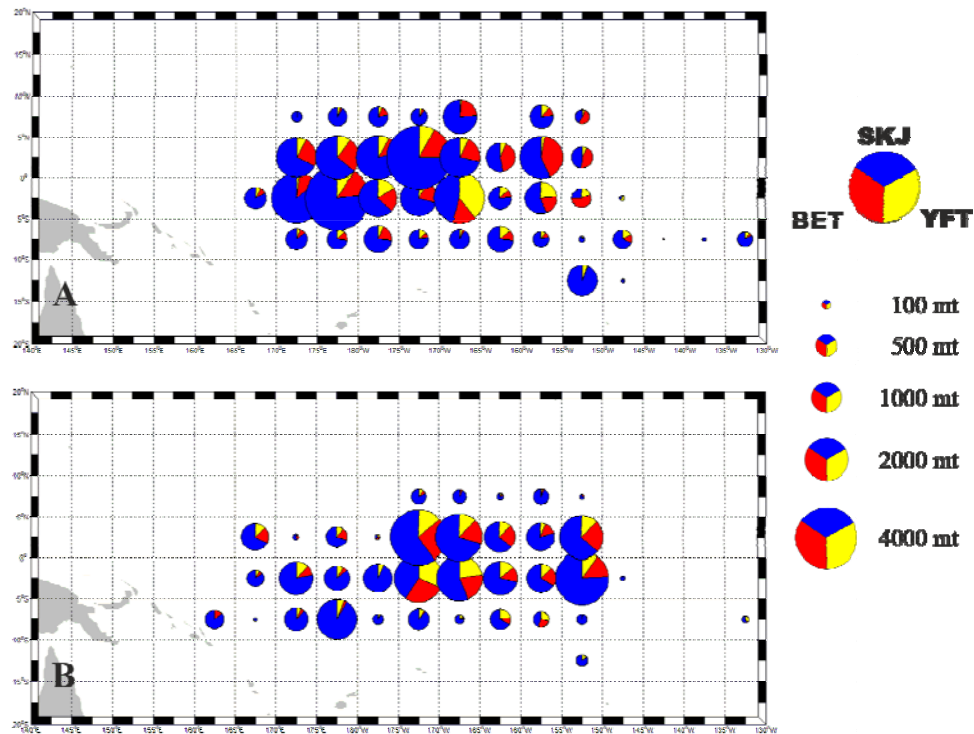
As in previous years, 4 EC-Spain flagged purse seiners fished in the WCPFC-CA in 2011, with gross register tonnages of 1562, 2468, 2502 and 3200 GRT. Tuna are mainly caught by sets on FADs, but also on free schools. Catches are frozen onboard in salt vats. Table II summarizes the number of vessels and total gross register tonnages from the beginning of the fishery in the WCPFC-CA.

<b>Year</b>	<b>GRT</b>	<b>No. vessels</b>
<b>1996</b>	1351	1
<b>1997</b>	1351	1
<b>1998</b>	4419	3
<b>1999</b>	8176	4
<b>2000</b>	6887	4
<b>2001</b>	9172	4
<b>2002</b>	9172	4
<b>2003</b>	10678	5
<b>2004</b>	6532	3
<b>2005</b>	6532	3
<b>2006</b>	6532	3
<b>2007</b>	9732	4
<b>2008</b>	9732	4
<b>2009</b>	9732	4
<b>2010</b>	9732	4
<b>2011</b>	9732	4

**Table II.-** Number of EC-Spain purse seiners and total gross register tonnage in the WCPFC-CA by year.

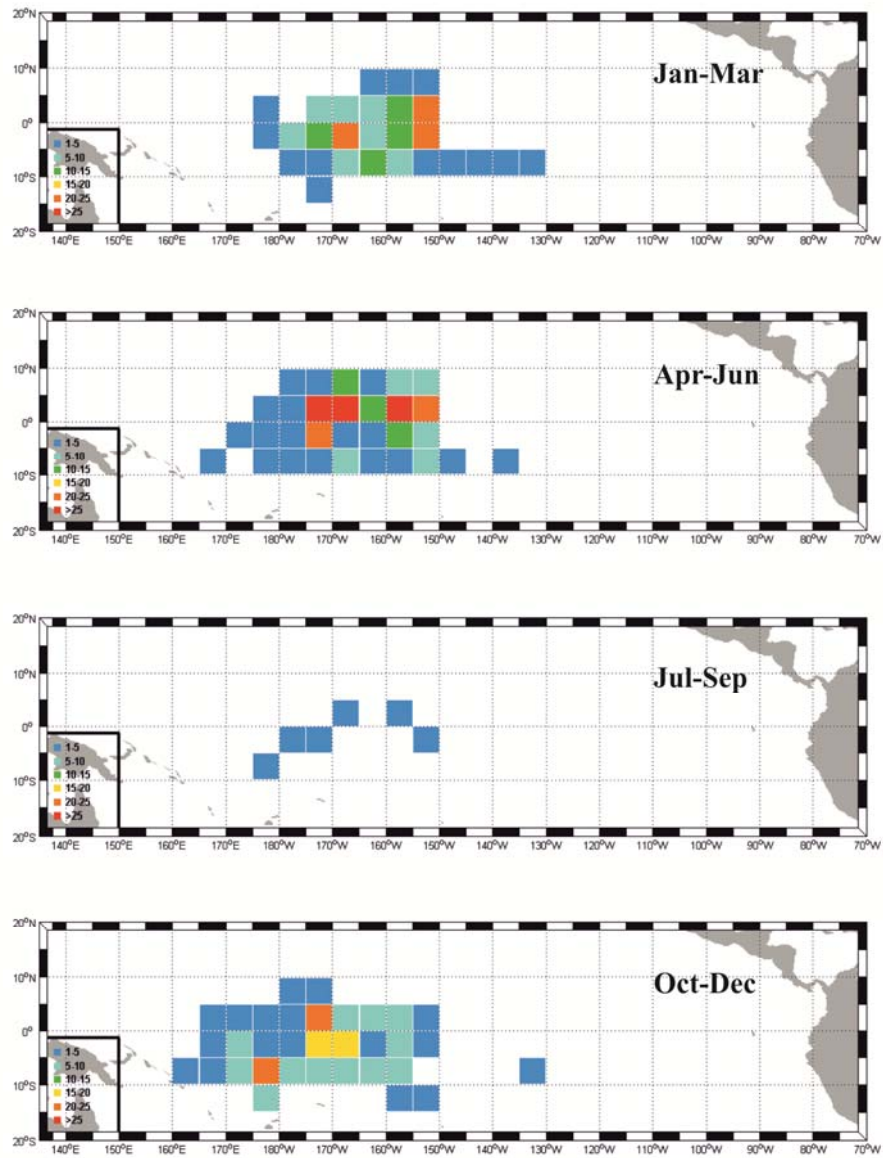
### 1.3.- Fishing patterns

Figure 1 shows the distribution of the catches (5° x 5°) of Spanish purse seiners in the WCPFC-CA during 2011 and 2010. An increase of the catches to the west took place during 2011 in relation to the previous year, probably reflecting the moderate La Niña conditions during most of the year.

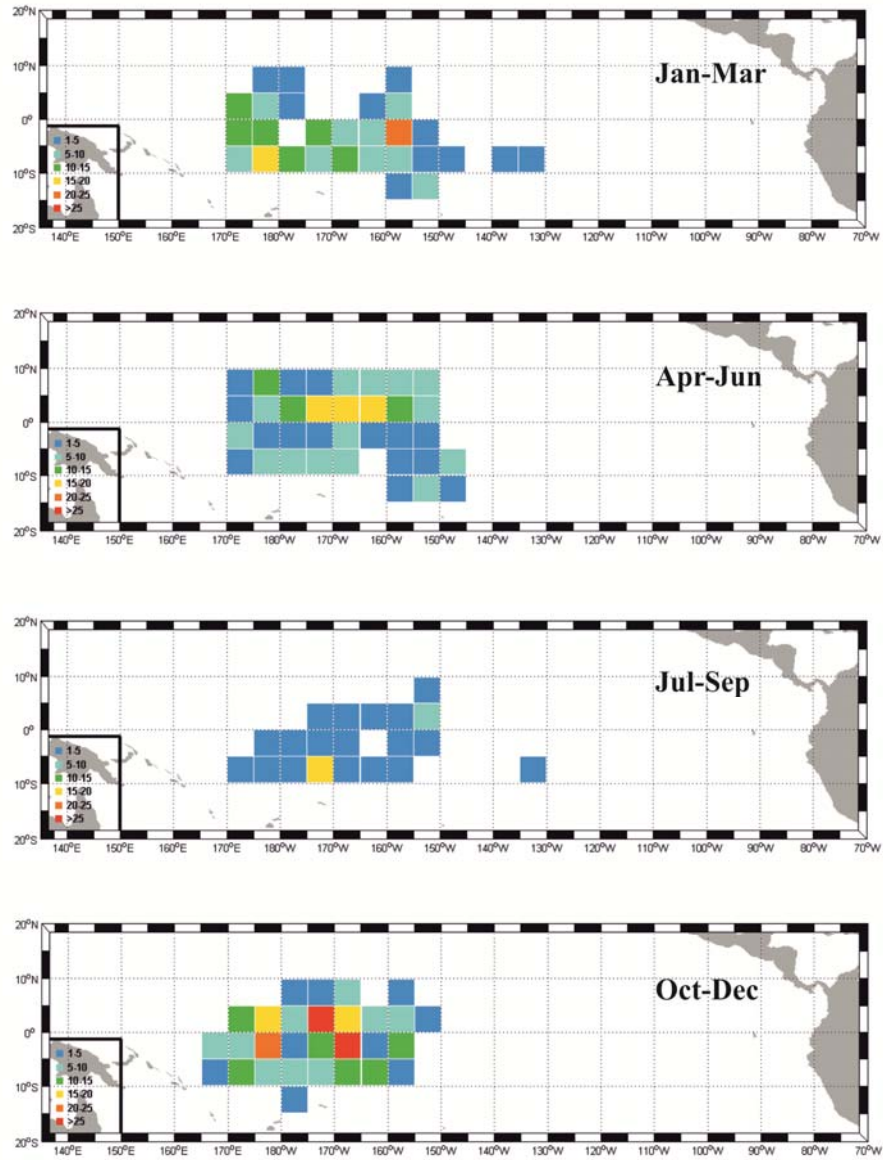


**Fig. 1.-** Distribution of catches by area (5°x5°) and species in 2011 (A) and 2010 (B).

The distribution of fishing effort during 2010 and 2011, by quarter, is shown in figures 2 and 3, respectively. The fishing effort is seen to be mainly distributed around the equator (10° S to 10° N). Since the last quarter of 2010, the purse seine effort shifted to the west, probably reflecting the effects of La Niña conditions. A clear decrease of the effort was observed in the third quarter of 2010, due to the closure of the FAD fishery. This decrease is also observed during 2011, but to a lesser extent.



**Fig. 2.-** Distribution of the purse seine effort, in fishing days, by area (5°x5°) and quarter in 2010.



**Fig. 3.-** Distribution of the purse seine effort, in fishing days, by area (5°x5°) and quarter in 2011.

#### **1.4.- Estimated total catches of non-target, associated and dependent species.**

Table III summarizes the purse seine bycatch by species in 2011 in the WCPFC-CA. In most cases, only the number of fish of each species per set is recorded by the observers. The total weight has been estimated by multiplying the number of fish by an average weight for the purse seine fishery provided by the IATTC (N. Vogel, pers. comm.).

Around 42% of the *Carcharinus falciformis*, the main shark species bycatch of the purse seine fleet, as well as 50% of the *Sphyrna* sp. and *Allopias* sp. bycatch included in table III was released alive.

There is a mandatory Spanish protocol for releasing marine turtles caught by purse seine alive. All turtles involved in fishing operations must be released in the best conditions as soon as possible. In 2011, only one green turtle, *Chelonia mydas*, was involved in purse seine fishing operations within the WCPFC-CA (observer coverage: 53% of the total catch in weight). This turtle was released unharmed.

Purse seine bycatch in the WCPFC-CA for 2010 is provided in Table IV.

	Species	WCPFC	East of 150 ° W
BILLFISH	<i>Istiophoridae, Xiphiidae</i>	0,51	0
	<i>Istiophorus platypterus</i>	0,06	0
	<i>Makaira indica</i>	5,23	0
	<i>Makaira nigricans</i>	20,71	0
	<i>Makaira, Tetrapturus</i>	6,45	0
SHARKS	<i>Alopias spp.</i>	0,11	0
	<i>Carcharhinus falciformis</i>	40,99	1,08
	<i>Carcharhinus longimanus</i>	0,16	0
	<i>Carcharhinus spp.</i>	0,13	0,07
	<i>Sphyrna spp.</i>	0,2	0
	<i>Sphyrna zygaena</i>	0,12	0
	Sharks, nei	0,45	0
OTHER FISH	<i>Ablennes hians</i>	0,01	0
	<i>Acanthocybium solandri</i>	2,78	0,21
	<i>Aluterus monoceros</i>	0,01	<0.01
	<i>Aluterus scriptus</i>	<0.01	0
	<i>Aluterus spp.</i>	<0.01	0
	<i>Balistidae</i>	0,04	0
	<i>Canthidermis maculatus</i>	3,62	0,06
	<i>Caranx sexfasciatus</i>	0,04	0
	<i>Caranx spp.</i>	<0.01	0
	<i>Coryphaena equiselis</i>	0,04	0
	<i>Coryphaena hippurus</i>	5,52	0,42
	<i>Coryphaenidae</i>	5,64	0
	<i>Decapterus macarellus</i>	0,09	0
	<i>Elagatis bipinnulata</i>	4,45	0,01
	<i>Kyphosus analogus</i>	<0.01	0
	<i>Kyphosus elegans</i>	0,02	0
	<i>Kyphosus spp.</i>	0,01	<0.01
	<i>Lobotes surinamensis</i>	<0.01	0
	<i>Mobula japonica</i>	0,07	0
	<i>Mobula spp.</i>	0,07	0
	<i>Mobulidae</i>	0,04	0
	<i>Mola mola</i>	3,07	0
	<i>Naucrates ductor</i>	<0.01	0
	<i>Pteroplatytrygon violacea</i>	0,02	0
<i>Sectator ocyurus</i>	0,01	0	
<i>Seriola rivoliana</i>	0,01	0	
<i>Seriola, Caranx spp.</i>	<0.01	0	
<i>Sphyraena barracuda</i>	0,47	0,12	
	<i>Uraspis helvola</i>	0,01	0

**Table III.-** Purse seine bycatch in metric tonnes in the WCPFC-CA and in the WCPFC-CA east of meridian 150°W during 2011. These figures have been estimated from the bycatch records of the trips carrying observers of the AIDCP (53% of the total catch in weight in the WCPFC-CA), assuming a similar composition of the bycatch in trips without observers onboard.



	Species	WCPFC	East of 150 ° W
BILLFISH	<i>Istiophorus platypterus</i>	0,03	0
	<i>Makaira indica</i>	0,67	0
	<i>Makaira nigricans</i>	27,33	0
	<i>Makaira, Tetrapturus</i>	1,05	0,12
	<i>Tetrapturus angustirostris</i>	0,07	0
	<i>Tetrapturus audax</i>	0,41	0
	<i>Xiphias gladius</i>	0,09	0
SHARKS	<i>Carcharhinus falciformis</i>	46,21	0,02
	<i>Carcharhinus longimanus</i>	0,26	0
	<i>Carcharhinus spp.</i>	0,13	0
	<i>Rhincodon typus</i>	8,39	0
	<i>Sphyrna mokarran</i>	0,08	0
	Sharks, nei	0,07	0
OTHER FISH	<i>Acanthocybium solandri</i>	7,04	0,08
	<i>Aluterus monoceros</i>	0,01	0
	<i>Aluterus scriptus</i>	<0.01	0
	<i>Aluterus spp.</i>	<0.01	0
	Balistidae	2	0
	Balistidae, Monacanthidae	0,02	0
	<i>Canthidermis maculatus</i>	13,72	0,02
	<i>Caranx sexfasciatus</i>	0,01	0
	<i>Caranx spp.</i>	0,1	0
	<i>Coryphaena equiselis</i>	0,35	0
	<i>Coryphaena hippurus</i>	6,24	0,16
	Coryphaenidae	1,04	0
	<i>Decapterus macarellus</i>	0,11	0
	<i>Elagatis bipinnulata</i>	2,95	<0.01
	<i>Kyphosus analogus</i>	0,08	0
	<i>Kyphosus elegans</i>	0,1	<0.01
	<i>Kyphosus spp.</i>	0,02	<0.01
	<i>Lobotes surinamensis</i>	0,08	0
	<i>Manta birostris</i>	0,12	0
	<i>Mobula japonica</i>	0,02	0
	<i>Mobula spp.</i>	0,04	0
	<i>Mobula tarapacana</i>	0,02	0
	Mobulidae, Dasyatidae	0,02	0
	<i>Mola mola</i>	2,03	0,6
	<i>Naucrates ductor</i>	<0.01	0
	Pisces	0,02	0
	<i>Remora remora</i>	<0.01	0
	<i>Sectator ocyurus</i>	0,05	0
	<i>Seriola lalandi</i>	0,07	0
	<i>Seriola rivoliana</i>	0,04	0
	<i>Seriola spp.</i>	0,02	0
	<i>Sphyrna barracuda</i>	0,18	0
<i>Uraspis helvola</i>	0,01	0	
Other fish, nei	<0.01	0	

**Table IV.-** Purse seine bycatch in metric tonnes in the WCPFC-CA and in the WCPFC-CA east of meridian 150°W during 2010. These figures have been estimated from the bycatch records of the trips carrying observers of the AIDCP (89% of the total catch in weight in the WCPFC-CA), assuming a similar composition of the bycatch in trips without observers onboard.