

## **TABLES/TABLEAUX**

**Table 2.2.1a:** Catches (tonnes) of *Sardina pilchardus* (1990–2006) by zone, fleet and year/Captures (tonnes) de *Sardina pilchardus* (1990-2006) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
North	Moroccan coastal purse-seiners	15478	17261	18745	24496	16643	16661	11497	7154	5567	4277
	<b>Total North</b>	<b>15478</b>	<b>17261</b>	<b>18745</b>	<b>24496</b>	<b>16643</b>	<b>16661</b>	<b>11497</b>	<b>7154</b>	<b>5567</b>	<b>4277</b>
A (32°N - 29°N)	Moroccan coastal purse-seiners	48881	33643	46199	54145	30838	19381	3546	16237	33186	21814
	<b>Total A</b>	<b>48881</b>	<b>33643</b>	<b>46199</b>	<b>54145</b>	<b>30838</b>	<b>19381</b>	<b>3546</b>	<b>16237</b>	<b>33186</b>	<b>21814</b>
B (29°N - 26°N)	Moroccan coastal purse-seiners	223714	261757	197939	253322	399051	477947	354820	423268	347965	370164
	Spanish purse-seiners	58481	100319	28071	2218	12790	89	25			
	<b>Total B</b>	<b>282195</b>	<b>362076</b>	<b>226010</b>	<b>255540</b>	<b>411841</b>	<b>478036</b>	<b>354845</b>	<b>423268</b>	<b>347965</b>	<b>370164</b>
C (26°N – Sud)	Moroccan coastal purse-seiners & RSW	28450	33727	31919	30127	18880	27561	8439	37951	45355	18715
	Spanish purse-seiners	66075	16229	68759	112243	67800	13714	125813	113053	138166	55726
	Ukraine and other pelagic trawlers <sup>(5)</sup>							30188	7474	16861	44093
	Russian pelagic trawlers <sup>(3)</sup>	356203	262579	144627	67523	53845	45417	53121	24630	5100	4762
	Other pelagic trawlers <sup>(2)</sup>	315479	342261	184374	78532	45860	45276				
	Mauritania (artisanal)										
	Mauritania (industrial)										
	Others Mauritania <sup>(4)</sup>							10356	15139	8118	7144
	European Union <sup>(4)</sup>							1223	9255	11484	4134
	Senegal (artisanal)		167	123	1	1892	268	0	0	3	1
	Senegal (industrial)										
<b>Total C</b>	<b>766207</b>	<b>654796</b>	<b>429679</b>	<b>288425</b>	<b>186385</b>	<b>131968</b>	<b>229140</b>	<b>207502</b>	<b>225084</b>	<b>134574</b>	
<b>Total</b>	<b>all fleets and zones</b>	<b>1112762</b>	<b>1067776</b>	<b>720633</b>	<b>622605</b>	<b>645707</b>	<b>646046</b>	<b>599028</b>	<b>654161</b>	<b>611802</b>	<b>530829</b>

(cont.)

(1) Data obtained from COPACE/PACE SERIES 90/50 tables A 3 (page 31) and A 7 (page 35)

(2) Data obtained from COPACE/PACE SERIES 97/60 Table 9 page 15

(3) Data from 1983-1995 obtained from COPACE/PACE/SERIES 97/60 Table 9, Page 15. For the period 1996-1999 the data are Russian statistics from statistical sub-divisions 34.1.3 and 34.3.1. For these years Russia did not fish in Senegal.

(4) Data obtained from IMROP statistics

(5) Moroccan statistics (INRH)

**Table 2.2.1a (cont.):** Catches (tonnes) of *Sardina pilchardus* (1990–2006) by zone, fleet and year/Captures (tonnes) de *Sardina pilchardus* (1990-2006) par zone, flottille et année

<b>Zone</b>	<b>Fleet</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
North	Moroccan coastal purse-seiners	6790	6302	18516	20655	21451	17363	18484
	<b>Total North</b>	<b>6790</b>	<b>6302</b>	<b>18516</b>	<b>20655</b>	<b>21451</b>	<b>17363</b>	<b>18484</b>
A (32 °N– 29 °N)	Moroccan coastal purse-seiners	29694	45725	23206	74578	60471	25160	25618
	<b>Total A</b>	<b>29694</b>	<b>45725</b>	<b>23206</b>	<b>74578</b>	<b>60471</b>	<b>25160</b>	<b>25618</b>
B (29 °N–26 °N)	Moroccan coastal purse-seiners	485124	699246	610872	517271	473987	528071	363297
	Spanish purse-seiners							
	<b>Total B</b>	<b>485124</b>	<b>699246</b>	<b>610872</b>	<b>517271</b>	<b>473987</b>	<b>528071</b>	<b>363297</b>
C (26 °N–South)	Moroccan coastal purse-seiners and RSW	1448	3118	21527	43903	76249	108331	148779
	Spanish purse-seiners							
	Ukraine and other pelagic trawlers <sup>(5)</sup>	36127	14156			476	6599	33290
	Russian pelagic trawlers <sup>(2)</sup>					2902	10575	31334
	Other pelagic trawlers <sup>(1)</sup>							
	Mauritania (artisanal)						45	
	Others Mauritania <sup>(3)</sup>	11952	4988	9783	32853	25359	25597	53472
	European Union <sup>(3)</sup>	11593	13644	27789	50703	55471	39597	20190
	Senegal (artisanal)	3	2	507			14212	12000
	Senegal (industrial)						666	0
	<b>Total C</b>	<b>61120</b>	<b>35906</b>	<b>59099</b>	<b>127459</b>	<b>160457</b>	<b>205622</b>	<b>299065</b>
<b>Total</b>	<b>All fleets and zones</b>	<b>582728</b>	<b>787178</b>	<b>711693</b>	<b>739963</b>	<b>716366</b>	<b>776216</b>	<b>706464</b>

**Table 2.2.1b:** Effort of *Sardina pilchardus* (1990–2006) by zone, fleet and year/Effort de *Sardina pilchardus* (1990-2006) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
North	Moroccan coastal purse-seiners <sup>(1)</sup>	1675	1943	3160	3189	2865	3046	1872	936	800	(**)
A (32 °N–29 °N)	Moroccan coastal purse-seiners <sup>(1)</sup>	7330	4605	5848	6829	4135	1943	578	1530	2364	5122
B (29 °N–26 °N)	Moroccan coastal purse-seiners <sup>(1)</sup>	7023	10085	9163	10404	16375	20693	19361	9365	10248	14102
	Spanish purse-seiners <sup>(2)</sup>	407	782	477	20	259	2	1			
C (2 6°N–20 °N)	Moroccan coastal purse-seiners <sup>(1)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Moroccan purse-seiners RSW <sup>(2)</sup>										
	Spanish purse-seiners <sup>(2)</sup>	416	187	546	715	471	115	910	814	870	567
	Ukraine and other pelagic trawlers <sup>(2) (4)</sup>	NA	NA	NA	93	1194	2323	2239	3080	5797	4803
	Russia <sup>(2) (4)</sup>				1476	2818	4162	2952	4411	7399	6524
	All fleets <sup>(2) (5)</sup>	15188	14199	7497	5027	3389	2297				
	Others Mauritania <sup>(3)</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	European Union <sup>(4)</sup>							715	940	1300	1538
	Senegal (artisanal)										
Senegal (industrial)											

(1) Trips with sardine catches.

(2) Fishing days.

(3) Do not target sardine.

(4) Morocco-INRH.

(5) Standardized effort (RTMS, from COPACE/PACE Series 97/61, p.17, table 13)

(\*\*) NA: Not available.

(cont.)

**Table 2.2.1b (cont.):** Effort of *Sardina pilchardus* (1990–2006) by zones, fleet and year/Effort de *Sardina pilchardus* (1990-2006) par zone, flottille et année

Zone	Fleet	2000	2001	2002	2003	2004	2005	2006
North	Moroccan coastal purse-seiners <sup>(1)</sup>							
A (32 °N– 29 °N)	Moroccan coastal purse-seiners <sup>(1)</sup>	8797	3674	4012	6847	7440	2204	1245
B (29 °N–6 °N)	Moroccan coastal purse-seiners <sup>(1)</sup>	23367	15512	28392	18780	26945	27338	21137
	Spanish purse-seiners <sup>(2)</sup>							
C (26 °N–20 °N)	Moroccan coastal purse-seiners <sup>(1)</sup>	NA	NA	180	805	1762	1117	1236
	Moroccan purse-seiners RSW <sup>(2)</sup>			346	342	479	2415	2204
	Spanish purse-seiners <sup>(2)</sup>							
	Ukraine and other pelagic trawlers <sup>(2)(4)</sup>	3982	2218			479	1603	
	Russia <sup>(2)(4)</sup>					1466	1623	2212
	All fleets <sup>(2)(5)</sup>							
	Others Mauritania <sup>(3)</sup>	8147	8337	7833	8158	11571	7168	7108
	European Union <sup>(4)</sup>	1308	1857	2178	2085	2006	1456	998
	Senegal (artisanal) <sup>(6)</sup>						81461	87643
Senegal (industrial) <sup>(2)</sup>						159		

**Table 2.4.1:** Sampling intensity of *Sardina pilchardus* in 2006/Intensité d'échantillonnage de *Sardina pilchardus* en 2006

Country	Fleet	Q1	Q2	Q3	Q4	2006
Country x	Fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Morocco Zone North	Moroccan	NOT AVAILABLE TO THE WORKING GROUP				
Morocco Zone A	Moroccan	<b>2782</b>	<b>4985</b>	<b>13260</b>	<b>4593</b>	<b>25620</b>
		68	55	15	22	160
		6990	4471	630	1757	13848
		200	260	80	110	650
Zone B	Moroccan	<b>86445</b>	<b>51118</b>	<b>86314</b>	<b>139420</b>	<b>363297</b>
		49	86	111	87	333
		2616	4886	6942	5027	19471
		203	246	270	261	980
Zone C, north of C. Blanc	Moroccan	<b>13819</b>	<b>41753</b>	<b>43974</b>	<b>49233</b>	<b>148779</b>
		10	16	10	13	49
		496	930	490	762	2678
		100	150	70	130	450
	Russian*	<b>3644</b>	<b>6151</b>	<b>2277</b>	<b>19261</b>	<b>31334</b>
		0	14	23\14	181\24	218\38
		0	1016	4487	43527	49030
		0	213	298	506	1017
Mauritania	EU	<b>8097</b>	<b>5713</b>	<b>50</b>	<b>6330</b>	<b>20190</b>
		85	24	NA	NA	109
		8420	1785	NA	NA	10205
		0	0	0	0	0
	Russian	<b>27536</b>	<b>13046</b>	<b>1706</b>	<b>11184</b>	<b>53472</b>
		NA	21	NA	NA	21
		NA	1941	NA	NA	1941
		0	0	0	0	0
artisanal	NA					
Senegal	industrial	NA				
	artisanal	NA	NA	NA	NA	<b>12000</b>
		60	23	0	2	85
		5063	1164	0	150	6377
		0	0	0	0	0
The Gambia	industrial	NA				
	artisanal	NA				

\* commercial\research

**Table 2.5.1a:** Age-length key, Zone A+B 2006 (in numbers) (Moroccan catches)/  
Clé taille-âge, Zone A+B 2006 (en individus) (captures marocaines)

Zone A+B 2006							
Length/age	0	1	2	3	4	5	6
6.0							
6.5							
7.0							
7.5							
8.0							
8.5	28						
9.0	301						
9.5	906						
10.0	1 227						
10.5	3 923						
11.0	4 315						
11.5	8 344						
12.0	11 029						
12.5	15 000						
13.0	26 222						
13.5	35 196						
14.0	55 925						
14.5	84 935						
15.0	119 772	9 981					
15.5	107 627	58 706					
16.0	34 687	115 622					
16.5		106 220					
17.0		122 817	6141				
17.5		150 872	13 119				
18.0		158 406	52 802				
18.5		142 844	153 047				
19.0		56 289	288 482				
19.5		48 715	382 763	13 919			
20.0			418 924	50 021			
20.5			392 711	53 551			
21.0			212 338	111 757			
21.5			168 567	112 378			
22.0			77 332	136 469			
22.5			27 889	211 161	7 968		
23.0			4 915	211 336	49 148		
23.5				130 305	134 798		
24.0				13 968	186 244	13 968	
24.5				4476	67 144	35 810	
25.0					20 744	24 892	4 149
25.5					4 047	16 187	4 047
26.0						3 891	7 782
26.5							5 606
27.0							1 668
27.5							
<b>Total (in 10<sup>3</sup>)</b>	<b>509 436</b>	<b>970 472</b>	<b>2 199 032</b>	<b>1 049 341</b>	<b>470 092</b>	<b>94 749</b>	<b>23 252</b>
<b>Average size (cm)</b>	14.48	17.42	20.02	22.16	23.86	24.79	25.93
<b>Average weight (kg)</b>	0.025	0.045	0.069	0.094	0.118	0.133	0.153

**Table 2.5.1b:** Age-length key, Zone C 2006 (in thousands of individuals) (Moroccan and Russian catches)/  
Clé taille-âge, Zone C 2006 (en milliers d'individus) (captures marocaines et russes)

Zone C 2005							
Length/age	0	1	2	3	4	5	6
9.0							
9.5							
10.0							
10.5							
11.0							
11.5							
12.0							
12.5							
13.0							
13.5	89						
14.0	89						
14.5	488						
15.0	1 324						
15.5	1 470	459					
16.0	879	370					
16.5	1 046	1 427					
17.0	101	3 131					
17.5		6 358					
18.0		5 602	420				
18.5		5 504	847				
19.0		4 394	3 808				
19.5		8 586	9 246				
20.0		14 966	21 768				
20.5		15 029	23 122				
21.0		17 607	27 210				
21.5		15 509	60 096	3 877			
22.0		10 191	84 074	15 286			
22.5			273 036	60 675			
23.0			216 167	150 377	18 797		
23.5			115 155	196 440	47 417		
24.0			102 860	253 193	39 561		
24.5			24 088	139 711	52 994	9 635	
25.0				117 668	56 655	26 148	
25.5				46 695	62 261	10 377	2 594
26.0				26 677	48 503	33 952	2 425
26.5				9 877	16 461	7 682	2 195
27.0				2 528	11 796	9 268	2 528
27.5					5 492	3 775	1 030
28.0					1 003	602	201
28.5						573	287
29.0							43
<b>Total (in 10<sup>3</sup>)</b>	5 487	109 133	961 899	1 023 005	360 939	102 013	11 301
<b>Average size (cm)</b>	15.03	19.56	22.14	23.46	24.42	25.26	25.95
<b>Average weight (kg)</b>	0.031	0.067	0.097	0.115	0.129	0.142	0.154

**Table 2.5.2a:** Catch-at-age (thousands of individuals) of *Sardina pilchardus* in Zone A+B/Capture par âge (milliers d'individus) de *Sardina pilchardus* dans la Zone A+B

Age/Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0	45270	15128	38261	2999957	1869433	1882528	1596381	8566572	3058732	1045264	3422264	1630954	3626884	2918742	1358525	721420	509436
1	589629	1636731	450608	1777920	4717104	3757581	3908056	6083372	5898782	2346296	2166548	2729404	4118047	2891346	2293358	1430273	970472
2	1826829	1530553	2643529	954213	1824105	2723592	1646273	1199298	2111017	1871809	1970485	4450602	2591126	2461023	3719324	4464664	2199032
3	1222857	994532	333241	253858	454180	1131255	997641	252393	187031	832765	1483769	2671350	655140	1304157	1006405	1165911	1049341
4	516916	486308	113119	205332	264557	497298	270374	125102	105540	710509	560989	472617	605361	541733	307211	311665	470092
5	386516	302275	23395	292772	122245	177757	333451	145026	84831	488961	266672	259516	176381	195026	71976	88027	94749
6	25909	40272	737	115747	37865	130572	53847	28611	84525	233510	48739	239837		31005	12915	14249	23252
7+	37319	45478	129	24	33	37	32	59	41	27	36	45					
Total	4651245	5051277	3603019	6599823	9289523	10300622	8806054	16400434	11530499	7529140	9919501	12454323	11772939	10343033	8769715	8196209	5316375

The series 1990–2001 was obtained from the 2002WG (FAO 2002).

**Table 2.5.2b:** Mean weight-at-age (kg) of *Sardina pilchardus* in Zone A+B/Poids moyen par âge (kg) de *Sardina pilchardus* dans la Zone A+B

Age/Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0	0.027	0.037	0.026	0.026	0.031	0.027	0.023	0.022	0.022	0.023	0.025	0.024	0.023	0.026	0.029	0.024	0.025
1	0.046	0.089	0.054	0.040	0.042	0.041	0.035	0.031	0.035	0.037	0.038	0.038	0.045	0.037	0.045	0.052	0.045
2	0.065	0.088	0.071	0.053	0.051	0.046	0.044	0.038	0.043	0.051	0.059	0.055	0.058	0.065	0.061	0.070	0.069
3	0.079	0.097	0.070	0.060	0.068	0.060	0.055	0.048	0.050	0.059	0.074	0.066	0.097	0.095	0.094	0.098	0.094
4	0.084	0.099	0.081	0.074	0.090	0.074	0.078	0.056	0.060	0.066	0.086	0.076	0.120	0.119	0.116	0.132	0.118
5	0.090	0.103	0.085	0.085	0.101	0.085	0.092	0.080	0.075	0.072	0.095	0.084	0.139	0.136	0.133	0.152	0.133
6	0.094	0.114	0.096	0.106	0.105	0.104	0.119	0.106	0.085	0.084	0.108	0.096		0.148	0.147	0.170	0.153
7+	0.131	0.139	0.114														

The series 1990–2001 was obtained from the 2002WG (FAO 2002).

**Table 2.5.2c:** Catch-at-age (thousands of individuals) of *Sardina pilchardus* in Zone C/Capture par âge (milliers d'individus) de *Sardina pilchardus* dans la Zone C

Age/Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0	129		420	68	1741	125	2894	77448	19813	28108	8144	4784	523			0	5487
1	889223	624613	588710	106919	55705	41876	62995	551093	1211337	330086	261948	153886	86732	142702	4399	552	109133
2	2036191	1604457	1961506	623152	664866	170317	417509	741833	979006	541112	258328	151759	177207	258420	179480	81894	961899
3	2658165	2327931	1495437	1971575	1347683	320607	980631	496298	423899	110766	90861	53378	137394	363571	466303	483289	1023005
4	2891544	2658842	172164	644966	547308	574014	495336	424345	283838	27746	52950	31107	99051	259917	217335	412637	360939
5	1309369	1130307	1090898	303493	100737	340482	153962	110890	113496	10520	21075	12381	37950	150986	122344	260291	102013
6	314011	233996	298608	100455	6565	89430	7030	41633	7808	2592	1767	1038		28268	13740	38497	11301
7	91165	31124	12199	16051	1726	5595	4197	0	1715	526	381	224					
Total	10189797	8611270	5619942	3766679	2726331	1542446	2124554	2443540	3040911	1051458	695454	408556	538857	1203864	1003601	1277158	2573777

**Table 2.5.2d:** Mean weight-at-age (kg) of *Sardina pilchardus* in Zone C/Poids moyen par âge (kg) de *Sardina pilchardus* dans la Zone C

Age/Year	1990	1991	1992	1993	1994	1995	1996*	1997	1998	1999*	2000	2001	2002	2003	2004	2005	2006
0	0.018	0.023	0.027	0.020	0.022	0.021	0.024	0.014	0.019	0.027	0.023	0.025	0.026				0.031
1	0.067	0.072	0.070	0.048	0.043	0.046	0.029	0.040	0.051	0.062	0.056	0.059	0.051	0.050	0.057	0.064	0.067
2	0.081	0.083	0.072	0.072	0.055	0.083	0.068	0.070	0.064	0.077	0.070	0.074	0.100	0.076	0.090	0.096	0.097
3	0.089	0.089	0.071	0.076	0.059	0.089	0.085	0.094	0.086	0.092	0.089	0.091	0.115	0.105	0.105	0.114	0.115
4	0.094	0.093	0.113	0.083	0.085	0.105	0.104	0.107	0.117	0.111	0.114	0.112	0.128	0.129	0.125	0.130	0.129
5	0.102	0.101	0.104	0.091	0.108	0.100	0.117	0.114	0.121	0.119	0.120	0.120	0.147	0.145	0.138	0.142	0.142
6	0.108	0.101	0.093	0.110	0.102	0.106	0.128	0.124	0.119	0.141	0.130	0.135		0.174	0.166	0.166	0.154
7	0.103	0.101	0.131	0.110	0.109	0.109	0.130	0.122	0.132	0.160	0.146	0.153					

**Table 3.2.1a:** Catches (tonnes) of *Sardinella aurita* (1990–2006) by zone, fleet and year/Captures (tonnes) de *Sardinella aurita* (1990–2006) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Morocco Zone North	Moroccan										
Morocco Zone A	Moroccan										
Morocco Zone B	Moroccan										
Zone C, north of C. Blanc	Moroccan										
Mauritania	Russian	103075	18829	267	3423	1932	5619	1537	13790	15256	23089
	Ukraine and others				101	1386	8939	10796	15770	66237	61243
	EU industrial										
	other industrial										
	artisanal								20104	14930	12470
	all (without artisanal)	78645	50425	53756	35436	23409	65175	205756	168062	243672	173423
Senegal	industrial	10761	20290	19586	4499	3455	5948	6610	6024	2423	3525
	artisanal	83661	95114	155869	144944	132109	94845	138732	151112	131394	90108
The Gambia	industrial	2691	933	74	55	6	5	6	21	6	88
	artisanal	6	0	3	2	0	1	6	60	33	36
<b>Total</b>	<b>all fleets</b>	<b>278839</b>	<b>185591</b>	<b>229555</b>	<b>188460</b>	<b>162297</b>	<b>180532</b>	<b>363443</b>	<b>354839</b>	<b>459021</b>	<b>351512</b>

Zone	Fleet	2000	2001	2002	2003	2004	2005	2006*
Morocco Zone North	Moroccan							34
Morocco Zone A	Moroccan							
Morocco Zone B	Moroccan							3
Zone C, north of C. Blanc	Moroccan				94			530
Mauritania	Russian	0	0	0	0	880	3970	11980
	Ukraine and others	46308	13893	0	0	508	8852	21435
	EU industrial				130237	72437	91927	58270
	Russian, Ukraine and others				52517	42138	79263	51598
	artisanal	20186	18878	20624	25672	22055	17810	16200
	all (without artisanal)	177518	162291	170622				
Senegal	industrial	444	1282	1326	409	885	1035	264
	artisanal	111461	122284	116687	121207	139669	197920	139553
The Gambia	industrial	110	174	215	199	168	107	
	artisanal	5	29	807	605	512	923	639
<b>Total</b>	<b>all fleets</b>	<b>356032</b>	<b>318831</b>	<b>310281</b>	<b>330940</b>	<b>279252</b>	<b>401807</b>	<b>300506</b>

\*Preliminary.

**Table 3.2.1b:** Catches (tonnes) of *Sardinella maderensis* (1990–2006) by zone, fleet and year/Captures (tonnes) de *Sardinella maderensis* (1990-2006) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Morocco Zone North	Moroccan										
Morocco Zone A	Moroccan										
Morocco Zone B	Moroccan										
Zone C, north of C. Blanc	Moroccan										
	Russian	38014	7186		14	8	23	6	55	61	93
	Ukraine and others				0	6	36	43	63	266	246
Mauritania	EU industrial										
	Russian, Ukraine and others										
	artisanal								292	185	579
	all (without artisanal)	28355	7445	14146	8859	5799	16350	41804	23383	35242	17168
Senegal	industrial	6714	9962	14286	8389	4639	10717	7398	9008	4306	3720
	artisanal	68706	69575	74325	76968	46280	46584	114316	82462	89254	116249
The Gambia	industrial	3257	567	15	32	5	4	4	10	6	73
	artisanal	17	0	1	0.8	0	0.5	5	26	31	32
<b>Total</b>	<b>all fleets</b>	<b>145063</b>	<b>94735</b>	<b>102774</b>	<b>94263</b>	<b>56737</b>	<b>73714</b>	<b>163576</b>	<b>115007</b>	<b>129166</b>	<b>137581</b>

Zone	Fleet	2000	2001	2002	2003	2004	2005	2006*
Morocco Zone North	Moroccan							
Morocco Zone A	Moroccan							
Morocco Zone B	Moroccan							
Zone C, north of C. Blanc	Moroccan							
	Russian	0	0	0		120	700	2114
	Ukraine and others	0	5957	0		69	1356	3784
Mauritania	EU industrial				6186	7279	3758	4115
	Russian, Ukraine and others				18826	11880	10566	9477
	artisanal	2141	1339	2365	0	1402	878	
	all (without artisanal)	4245	23078	20077	14798			
Senegal	industrial	1176	1288	1362	2186	1776	1960	17
	artisanal	109933	118463	125523	162283	154637	114745	135130
The Gambia	industrial	88	250	375	408	275	162	
	artisanal	6	31	900	883	754	1125	1111
<b>Total</b>	<b>all fleets</b>	<b>117589</b>	<b>150406</b>	<b>150602</b>	<b>205570</b>	<b>178192</b>	<b>135250</b>	<b>155748</b>

\*Preliminary.

**Table 3.2.2:** Effort of sardinellas (1990–2006) (in fishing days; number of trips for Senegalese artisanal fisheries)/Effort de pêche des sardinelles (1990-2006) (en jours de pêche; nombre de voyages pour les pêcheries artisanales sénégalaises)

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N. Cap Blanc	Russian				1383	1624	1839	713	1331	1602	1721
	Ukraine and others				93	1194	2323	2239	3080	5797	4803
Mauritania	Russian, Ukraine and others		7865	8415	7317	3893	6272	9318	6879	8100	7340
	EU, standardized							715	940	1300	1538
Senegal	industrial	239	636	1347	770	344	431	482	598	480	1367
	artisanal*	72800	69174	80000	80555	70322	65377	71365	87157	77844	76810

Zone	Fleet	2000	2001	2002	2003	2004	2005	2006**
Morocco	Russian						1603	2212
	Ukraine and others	3982	2218				1623	
Mauritania	Russian, Ukraine and others	8147	8337	7833	8158	11571	7168	7108
	EU, standardized	1308	1857	2178	2085	2006	1456	998
Senegal	industrial	121	185	153	172	178	159	20
	artisanal*	82187	91684	92339	97315	75439	81461	87648

\*Number of trips.

\*\*Preliminary.

**Table 3.4.1:** Sampling intensity of *Sardinella aurita* (2006)/Intensité d'échantillonnage de *Sardinella aurita* (2006)

Country	Fleet	Q1	Q2	Q3	Q4	2006
country x	fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Morocco Zone North	Moroccan	NA	NA	NA	NA	
Morocco Zone A	Moroccan	<b>0</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>23</b>
		0	0	0	0	0
		0	0	0	0	0
		0	0	0	0	0
Morocco Zone B	Moroccan	<b>6446</b>	<b>3070</b>	<b>1557</b>	<b>252</b>	<b>11324</b>
		9	4	7	1	21
		407	105	204	17	733
		0	0	0	0	0
Zone C, north of Cap. Blanc	Moroccan	NA	NA	NA	NA	NA
	Russian	<b>0</b>	<b>2</b>	<b>200</b>	<b>3197</b>	<b>11980</b>
		0	3	69/15	79/12	151/27
		0	1026	21769/3484	24514/273	47309/3757
		0	99	489	352	940
Ukraine & others	NA	NA	NA	NA	NA	
Mauritania	EU	<b>800</b>	<b>8993</b>	<b>40432</b>	<b>8046</b>	<b>58271</b>
		62	47	NA	NA	109
		5330	4590	NA	NA	9920
		0	0	0	0	0
	Russia	<b>11343</b>	<b>13053</b>	<b>11798</b>	<b>15404</b>	<b>51599</b>
		NA /9	65	88/10	NA	153/19
		NA /32	4273	4819/927	NA	9092/1088
		NA	NA	NA	NA	NA
	artisanal	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
NA		NA	NA	NA	NA	
Senegal	industrial		NA	NA	NA	NA
			4	0	0	4
			549	0	0	549
			0	0	0	0
	artisanal	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>139553</b>
		95	152	100	95	442
		10086	13394	8966	8982	41428
	NA	NA	NA	NA	NA	
The Gambia	industrial	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
	artisanal	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA

\* Commercial/research surveys.

**Table 3.4.2:** Sampling intensity of *Sardinella maderensis* (2006)/Intensité d'échantillonnage de *Sardinella maderensis* (2006)

Country	Fleet	Q1	Q2	Q3	Q4	2006
country x	fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Morocco Zone North	Moroccan					
Morocco Zone A	Moroccan					
Morocco Zone B	Moroccan					
Zone C, north of C. Blanc	Moroccan					
	Russian	NA	NA	54/14	49/7	100/21
		NA	NA	15886/3000	15297/302	31183/3302
	Ukraine & others					
Mauritania	EU	<b>78</b>	<b>155</b>	<b>2765</b>	<b>1118</b>	<b>4116</b>
		18	27	NA	NA	45
		545	2161	NA	NA	2706
		NA	NA	NA	NA	NA
	Russian	<b>351</b>	<b>404</b>	<b>6420</b>	<b>2302</b>	<b>9477</b>
		NA/12	?NA	42/13	70	112/25
		NA/195	1867	2750/2096	NA	4617/2291
		NA	NA	NA	NA	NA
	artisanal	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
Senegal	industrial	0	0	0	0	0
	artisanal	NA	NA	NA	NA	<b>135130</b>
		51	36	30	35	152
		4356	3572	2221	2419	12568
	NA	NA	NA	NA	NA	
The Gambia	industrial	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
	artisanal	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA

\* Commercial/research surveys.

**Table 4.2.1a:** Catches (tonnes) of *Trachurus trachurus* (1990–2006) by zone, fleet and year/Captures (tonnes) de *Trachurus trachurus* (1990-2006) par zone, flottille et année

<b>Zone</b>	<b>Fleet</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Morocco Zone North	Moroccan	7111	4851	7085	12380	9250	11291	2259	3873	3384	5824	7170	5167
Morocco Zone A	Moroccan	4948	5231	9071	10255	12863	9773	6695	3149	1899	4389	4634	4482
Morocco Zone B	Moroccan	10	10	29	12	110	111	90	533	1346	688	1062	281
Zone C, north of C. Blanc	Moroccan									3	3	7	1
	Russian				2020	2523	6897	4024	4736	10147	13418	0	0
	Ukrainian and others				320	16254	21032	18644	26649	47630	43784	50175	45812
Mauritania	EU												
	others												
	all	33000	11949	20316	23250	15172	22492	16054	11558	20601	15051	5132	14206
Senegal	industrial												
	artisanal												
The Gambia	industrial												
	artisanal												
<b>Total</b>	<b>all fleets</b>	<b>45069</b>	<b>22041</b>	<b>36501</b>	<b>48237</b>	<b>56172</b>	<b>71596</b>	<b>47766</b>	<b>50498</b>	<b>85010</b>	<b>83157</b>	<b>68180</b>	<b>69949</b>

(cont.)

**Table 4.2.1a (cont.):** Catches (tonnes) of *Trachurus trachurus* (1990–2006) by zone, fleet and year/  
Captures (tonnes) de *Trachurus trachurus* (1990-2006) par zone, flottille et année

<b>Zone</b>	<b>Fleet</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006*</b>
Morocco Zone North	Moroccan	6128	8731	10431	7811	12217
Morocco Zone A	Moroccan	2858	5192	3368	3688	1330
Morocco Zone B	Moroccan	165	459	424	256	3430
Zone C, north of C. Blanc	Moroccan	0	0	11	4953	1586
	Russian	0	0	51223	32316	27755
	Ukrainian and others	8	0	27916	47833	22979
Mauritania	EU		1050	684	7668	4409
	others		48625	75295	16285	18685
	all	32203	49675	75979	23953	23094
Senegal	industrial					
	artisanal					
The Gambia	industrial					
	artisanal					
<b>Total</b>	<b>all fleets</b>	<b>31916</b>	<b>64057</b>	<b>169350</b>	<b>120810</b>	<b>92391</b>

\* preliminary

**Table 4.2.1b:** Catches (tonnes) of *Trachurus trecae* (1990–2006 by zone, fleet and year/Captures (tonnes) de *Trachurus trecae* (1990-2006 par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Morocco Zone North	Moroccan												
Morocco Zone A	Moroccan												
Morocco Zone B	Moroccan												
Zone C, north of C. Blanc	Moroccan												
	Russian				505	631	1724	1006	1184	2537	3355	0	0
	Ukrainian and others				80	4064	5258	4661	6662	11908	10946	42481	38788
Mauritania	EU												
	others												
	all	57000	94398	116995	86769	56850	97272	70274	52320	91455	65206	128776	170235
Senegal	industrial	33	234	877	14614	10597	15816	13397	11666	13888	2600	0	7
	artisanal	1525	3957	2218	3343	962	1382	1045	509	2804	1765	460	788
The Gambia	industrial	452	747	14	542	166	181	176	383	90	170	111	132
	artisanal	30	60	27	49	21	64	60	13	38	103	78	93
<b>Total</b>	<b>all fleets</b>	<b>59040</b>	<b>99396</b>	<b>120131</b>	<b>105902</b>	<b>73291</b>	<b>121697</b>	<b>90619</b>	<b>72737</b>	<b>122720</b>	<b>84145</b>	<b>171906</b>	<b>210043</b>

(cont.)

**Table 4.2.1b (cont.):** Catches (tonnes) of *Trachurus trecae* (1990–2005) by zone, fleet and year/Captures (tonnes) de *Trachurus trecae* (1990-2006) par zone, flottille et année

Zone	Fleet	2002	2003	2004	2005	2006
Morocco Zone North	Moroccan					
Morocco Zone A	Moroccan					
Morocco Zone B	Moroccan					
Zone C, north of C. Blanc	Moroccan				3806	1219
	Russian	0	0	595	26893	23097
	Ukrainian and others	0	0		45459	21838
Mauritania	EU	0	4471	18938	14668	39524
	others	0	94077	159239	175566	165323
	all	149014	98547	178176	190233	204847
Senegal	industrial	8	3		83	0
	artisanal	4537	2570	2584	5557	3595
The Gambia	industrial	140	110	125	0	0
	artisanal	150	145	140	0	0
<b>Total</b>	<b>all fleets</b>	<b>168339</b>	<b>101375</b>	<b>181621</b>	<b>271948</b>	<b>254596</b>

\* preliminary

**Table 4.2.1c:** Catches (tonnes) of *Caranx rhonchus* (1990–2006) by zone, fleet and year/Captures (tonnes) de *Caranx rhonchus* (1990-2006) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Morocco Zone North	Moroccan												
Morocco Zone A	Moroccan												
Morocco Zone B	Moroccan												
Zone C, north of C. Blanc	Moroccan												
	Russian												
	Ukrainian and others												
Mauritania	EU												
	others												
	all	22000	6487	1927	9451	6235	345	630	1236	1386	648	43290	21662
Senegal	industrial	6	0	10066	867	564	601	288	1742	140	16251	5	0
	artisanal	4725	2907	3650	4007	2590	3574	2980	2934	4407	8359	2383	3236
The Gambia	industrial	83	0	161	32	9	7	4	57	1	98	81	109
	artisanal	94	44	44	59	56	166	172	77	59	87	55	60
<b>Total</b>	<b>all fleets</b>	<b>26908</b>	<b>9438</b>	<b>15848</b>	<b>14416</b>	<b>9454</b>	<b>4693</b>	<b>4074</b>	<b>6046</b>	<b>5993</b>	<b>25443</b>	<b>45814</b>	<b>25067</b>

(cont.)

**Table 4.2.1c (cont.):** Catches (tonnes) of *Caranx rhonchus* (1990–2005) by zone, fleet and year/  
Captures (tonnes) de *Caranx rhonchus* (1990-2005) par zone, flottille et année

Zone	Fleet	2002	2003	2004	2005	2006*
Morocco Zone North						
Morocco Zone A	Moroccan					
Morocco Zone B	Moroccan					
Zone C, North of C. Blanc	Moroccan					
	Russian					
	Ukrainian & others					
Mauritania	EU		1733	891	4106	8276
	others		30038	37779	12576	33285
	all	66103	31771	38670	16682	41561
Senegal	industrial	5	0	0	0	0
	artisanal	5823	3455	4179	4833	4132
The Gambia	industrial	115	76	89		
	artisanal	134	126	111		
<b>Total</b>	<b>all fleets</b>	<b>72180</b>	<b>35428</b>	<b>43049</b>	<b>21515</b>	<b>45693</b>

\* Preliminary.

**Table 4.4.1:** Sampling intensity of *Trachurus trachurus* (2006)/  
 Intensité d'échantillonnage de *Trachurus trachurus* (2006)

Country	Fleet	Q1	Q2	Q3	Q4	2006
Country x	Fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Morocco Zone North	Moroccan	NO SAMPLING				
Morocco Zone A	Moroccan	NA	636		695	1330
		0	34		4	38
		0	827		322	1149
		0	0	0	0	0
Morocco Zone B	Moroccan	NA	NA	NA	3430	3430
		0	0	0	0	0
		0	0	0	0	0
		0	0	0	0	0
Zone C, north of C. Blanc	Moroccan	79	222	338	948	1586
			2		2	4
			42		17	59
			0	0	0	0
	Russian	10602	10436	4246	2470	27755
		52	44	65	68	229
		13060	11299	20605	21243	66207
		799	748	842	584	2973
Mauritania	EU	1152	1412	1194	652	4409
		36	0	0	0	36
		1956	0	0	0	1956
		0	0	0	0	0
IMROP	Russian Ukrainian and others	5164	5149	6664	1708	18685
			21	33		54
			1234	1383		2617
Senegal	industrial	NO SAMPLING				
	artisanal					
The Gambia	industrial					

**Table 4.4.2:** Sampling intensity of *Trachurus trecae* (2006)/Intensité d'échantillonnage de *Trachurus trecae* (2006)

Country	Fleet	Q1	Q2	Q3	Q4	2006
Country x	Fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Morocco Zone North	Moroccan	NO CATCH				
Morocco Zone A						
Morocco Zone B						
Zone C, north of C. Blanc	Moroccan	<b>79</b>	<b>172</b>	<b>263</b>	<b>737</b>	<b>1252</b>
		0	0	0	0	0
		0	0	0	0	0
			0	0	0	0
	Russian	<b>0</b>	<b>3187</b>	<b>11433</b>	<b>8477</b>	<b>23097</b>
		0	22	147	110	279
		0	4557	47916	29128	81601
		0	225	920	678	1823
Ukrainian and others	NA	NA	NA	NA	NA	
Mauritania	EU	<b>12205</b>	<b>14969</b>	<b>7990</b>	<b>4360</b>	<b>39524</b>
		29	30	0	0	59
		1053	2906	0	0	3959
		0	0	0	0	0
	Russian Fed. Ukrainian and others/IMROP	<b>54724</b>	<b>54568</b>	<b>44598</b>	<b>11433</b>	<b>165323</b>
			103	98		201
			7587	6658	0	14245
		0	0	0	0	0
	Russian	<b>310</b>	<b>492</b>	<b>162</b>	<b>36</b>	<b>1000</b>
Senegal	industrial	NO SAMPLES				

**Table 4.4.3:** Sampling intensity of *Caranx rhonchus* (2006)/Intensité d'échantillonnage de *Caranx rhonchus* (2006)

Country	Fleet	Q1	Q2	Q3	Q4	2006
Country x	Fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Zone C, north of Cap Blanc	Russian	NO SAMPLING				
Mauritania	EU (Holland)	3717	4559			<b>8276</b>
		7	2			9
		101	52			153
		NO SAMPLES				
	Russian		16666	16619		<b>33285</b>
			40	46		86
		Ukrainian and others/IMROP	1341	2203		3544
			0	0	0	0
	artisanal	NO SAMPLING				

**Table 4.6.1:** Catch-at-age (thousands of individuals) of *Trachurus trachurus* (1990–2006) in the subregion/Capture par âge (milliers d'individus) de *Trachurus trachurus* (1990-2006) dans la sous-région

Age*/Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	4	6484	53108	66916	1536	12098	15126	10646	326	1376	0	0	12	2600	8464	2359	10610
2	4586	13185	28247	35600	107303	14031	30261	24820	94706	15260	1661	2761	1234	15928	494776	7881	188088
3	22892	9050	15942	20089	111357	40680	32404	18779	134126	19154	4760	13933	14836	34786	308491	264350	328260
4	48754	6983	5970	7534	8222	64130	33910	17397	79966	25152	15375	67957	26026	38726	161607	365202	188763
5	17855	7626	5444	6796	584	51569	33737	38216	38008	29947	28735	59492	18538	29972	82263	78570	54488
6	6014	3872	6198	7829	238	8145	15470	29132	28945	40700	31238	46787	20378	25957	33521	43133	25621
7	3721	807	1967	2511	482	1459	3514	13619	26358	37394	31015	31598	15360	11925	8728	37963	12694
8	38	9	252	295	369	1215	1159	1243	25607	61210	19660	7541	4267	6914	5138	15981	5714
Catch (N)	105854	50008	119118	149562	232085	195322	167577	155849	430041	232193	134444	230069	100651	166808	1102990	815439	814239
Catch (t)	33000	11949	20316	25590	33949	50421	38722	42943	78381	72256	55314	69949	31916	54604	169350	120810	92391

**Table 4.6.2:** Catch-at-age (thousands of individuals) of *Trachurus trecae* (1990–2006) in the subregion/Capture par âge (milliers d'individus) de *Trachurus trecae* (1990-2005) dans la sous-région

Age*/Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	38	12677	54654	44199	56387	3025	13503	2492	3616	1075	11672	4962	87	9846	64240	19694	346054
2	1313	54198	248592	188981	127537	10938	5974	29124	4175	12010	38323	161508	9895	11870	495572	172353	366131
3	41906	93601	85537	96421	64950	94808	8138	31855	24753	20126	74209	199627	136052	32852	246183	179968	408270
4	60131	99139	45507	40423	27161	111123	14507	19509	24555	19473	71320	159871	130940	57701	233177	123763	283962
5	41011	45512	44714	38346	25979	56587	32892	51305	3812	26416	102520	103886	79390	50233	94663	93817	145690
6	14893	15279	21722	18504	12400	24002	113357	41444	1783	64113	107894	72646	55764	34346	25199	72455	35658
7	1492	3692	7599	6611	4429	11916	65982	27841	1528	42040	55660	56142	34046	28750	5578	32996	4107
8	254	694	4210	4427	2952	7575	11228	11527	1769	26494	59365	48022	39578	47201	12744	33824	330
Catch (N)	161037	324793	512535	437912	321795	319976	265581	215097	65992	211747	520963	806665	485752	272799	1177355	728871	1590201
Catch (t)	59040	99396	120130	105902	73291	121697	90619	72737	122720	84145	171906	210043	168339	100624	178951	190300	254596

\* Age readings by Russian Federation only.

**Table 5.2.1:** Catch (tonnes) of *Scomber japonicus* (1990–2006) by zone, fleet and year/  
Captures (en tonnes) de *Scomber japonicus* (1990-2005) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Morocco Zone North	Moroccan	2474	829	1051	1181	1710	1678	887	2224	862	3353
Morocco Zone A	Moroccan	21519	6145	8863	9948	34886	24762	10600	13712	5272	11034
Morocco Zone B	Moroccan	2519	3618	3330	4510	384	910	4021	11761	4849	1401
	<b>Northern fishery</b>	<b>26513</b>	<b>10592</b>	<b>13244</b>	<b>15639</b>	<b>36979</b>	<b>27351</b>	<b>15507</b>	<b>27697</b>	<b>10983</b>	<b>15788</b>
Zone C, C. Bojador to C. Blanc	Moroccan								55	1	
	Russian				4988	20970	27030	10975	50200	32290	30531
	Ukrainian and others				1824	11927	45661	55386	82015	115555	66601
	<b>All</b>				<b>6812</b>	<b>32897</b>	<b>72691</b>	<b>66361</b>	<b>132270</b>	<b>147846</b>	<b>97132</b>
Mauritania	EU										
	NON EU										
	Artisanal										
	<b>All</b>	<b>20000</b>	<b>8235</b>	<b>20303</b>	<b>16578</b>	<b>19094</b>	<b>44730</b>	<b>98017</b>	<b>48464</b>	<b>41192</b>	<b>21470</b>
Senegal	Industrial	17	88	431	1240	2189	1	3532	3534	3062	6461
	Artisanal	2482	843	1859	1376	1224	2296	1392	1596	1654	2439
	<b>Total Senegal</b>	<b>2499</b>	<b>931</b>	<b>2290</b>	<b>2616</b>	<b>3413</b>	<b>2297</b>	<b>4924</b>	<b>5130</b>	<b>4716</b>	<b>8900</b>
The Gambia	Industrial	235	281	7	46	34	0	46	116	20	125
	Artisanal	49	13	23	20	27	106	80	42	22	59
	<b>Total Gambia</b>	<b>284</b>	<b>294</b>	<b>30</b>	<b>66</b>	<b>61</b>	<b>106</b>	<b>126</b>	<b>158</b>	<b>42</b>	<b>184</b>
	<b>Southern fishery</b>	<b>22783</b>	<b>9460</b>	<b>22623</b>	<b>26072</b>	<b>55465</b>	<b>119824</b>	<b>169428</b>	<b>186022</b>	<b>193796</b>	<b>127686</b>
<b>TOTAL</b>	<b>N+S</b>	<b>49296</b>	<b>20052</b>	<b>35867</b>	<b>41711</b>	<b>92444</b>	<b>147175</b>	<b>184935</b>	<b>213719</b>	<b>204779</b>	<b>143474</b>

**Table 5.2.1 (cont.):** Catches (tonnes) of *Scomber japonicus* (1990–2006) by zone, fleet and year/  
Captures (en tonnes) de *Scomber japonicus* (1990-2006) par zone, flottille et année

Zone	Fleet	2000	2001	2002	2003	2004	2005	2006
Morocco Zone North	Moroccan	5612	1911	5779	6039	7174	12369	11097
Morocco Zone A	Moroccan	23267	9347	7426	9487	44402	45359	16491
Morocco Zone B	Moroccan	4281	14361	9495	18940	4423	4174	40389
	<b>Northern Fishery</b>	<b>33160</b>	<b>25619</b>	<b>22700</b>	<b>34465</b>	<b>55999</b>	<b>61902</b>	<b>67977</b>
Zone C, C. Bojador to C. Blanc	Moroccan			2	72	1826	21494	18276
	Russian	0	0	0	0	57636	40343	66187
	Ukrainian and others	90530	65186	0	0	6539	14312	16675
	<b>All</b>	<b>90530</b>	<b>65186</b>	<b>2</b>	<b>72</b>	<b>66002</b>	<b>76149</b>	<b>101138</b>
Mauritania	EU				32168	8356	4645	7345
	NON EU				101050	88210	33314	26101
	Artisanal				0	0	1	0*
	<b>All</b>	<b>65074</b>	<b>65662</b>	<b>104615</b>	<b>133218</b>	<b>96566</b>	37961	<b>33446</b>
Senegal	Industrial	51	13	27	0	1	71	0
	Artisanal	2321	1880	8869	14186	5939	7502	6940*
	<b>Total Senegal</b>	<b>2372</b>	<b>1893</b>	<b>8896</b>	<b>14186</b>	<b>5940</b>	<b>7573</b>	<b>6940</b>
The Gambia	Industrial	98	107	125	187	148	120	—
	Artisanal	42	62	219	121	128	66	—
	<b>Total Gambia</b>	<b>140</b>	<b>169</b>	<b>344</b>	<b>308</b>	<b>276</b>	<b>186</b>	<b>0</b>
	<b>Southern fishery</b>	<b>158116</b>	<b>132910</b>	<b>113857</b>	<b>147785</b>	<b>168783</b>	<b>121869</b>	<b>141524</b>
<b>TOTAL N+S</b>	<b>TOTAL N+S</b>	<b>191276</b>	<b>158529</b>	<b>136557</b>	<b>182250</b>	<b>224782</b>	<b>183771</b>	<b>209501</b>

Note: In Zone C North of Cap Blanc the boats are vessels operated under rental agreements or joint ventures (Russian Federation, Ukraine & others)

\*1824 were caught in Mauritania and declared in the landings of Senegal within the framework of the fishing agreements.

**Table 5.3.1:** CPUE of *Scomber japonicus*, catch (tonnes) and effort (fishing days) standardized to units of RTMS (Russian Federation and Ukraine)/CPUE de *Scomber japonicus*, capture (en tonnes) et effort (jours de pêche) standardisés aux unités de RTMS (Fédération de Russie et Ukraine)

Year	Catch (tonnes)			Standardized effort			CPUE (tonnes/ RTMS day)
	South	North	Total	South	North	Total	
1992	22623	13244	35867	425	249	674	53
1993	26072	15639	41711	447	268	715	58
1994	55465	36979	92444	1098	732	1831	51
1995	119824	27351	147175	2278	520	2798	53
1996	169428	15507	184935	3246	297	3543	52
1997	186022	27697	213719	3812	568	4379	49
1998	193796	10983	204779	4115	233	4348	47
1999	127686	15788	143474	3033	375	3408	42
2000	158116	33160	191276	3188	669	3856	50
2001	132910	25619	158529	2352	453	2806	57
2002	113857	22700	136557	2797	558	3355	41
2003	147785	34465	182250	3151	735	3886	47
2004	168783	55999	224782	3357	1114	4471	50
2005	121869	61902	183771	2930	1488	4418	42
2006	141524	60134	201658	3460	1470	4931	41

**Table 5.4.1:** Sampling intensity of *Scomber japonicus* (2006) by country (zone) and fleet/  
 Intensité d'échantillonnage de *Scomber japonicus* (2006) par pays (zone) et flottille

Country	Fleet	Q1	Q2	Q3	Q4	2006	
Country x	Fleet y	total catch in tonnes					
		number of samples					
		number of fish measured					
		number of fish aged					
Morocco Zone N	Moroccan	NA	NA	NA	NA	NA	
Morocco Zone A	Moroccan	<b>321</b>	<b>1227</b>	<b>12560</b>	<b>2382</b>	<b>16491</b>	
		2	77	111	42	232	
		38	4715	7868	2271	14892	
		0	246	219	160	625	
Morocco Zone B	Moroccan	<b>0</b>	<b>2758</b>	<b>8408</b>	<b>29222</b>	<b>40389</b>	
		0	6	21	4	31	
		0	163	488	91	742	
		0	0	0	0	0	
Zone C, North of C. Blanc	Moroccan	<b>608</b>	<b>2226</b>	<b>9342</b>	<b>6100</b>	<b>18276</b>	
		0	4	1	3	8	
		0	123	38	86	247	
		0	0	0	0	0	
	Russian	<b>29419</b>	<b>12474</b>	<b>12696</b>	<b>11598</b>	<b>66187</b>	
		136	103	144	162	545	
		44377	33152	46847	55707	180083	
		1096	734	977	869	3676	
	Ukrainian and others	0	0	0	0	0	
		0	0	0	0	0	
		0	0	0	0	0	
		0	0	0	0	0	
Mauritania	EU	<b>1355</b>	<b>2038</b>	<b>491</b>	<b>3461</b>	<b>7345</b>	
		18	28	NA	NA	46	
		209	2158	NA	NA	2367	
		0	0	0	0	0	
	Russian, Ukrainian and others	<b>6382</b>	<b>9076</b>	<b>2568</b>	<b>8075</b>	<b>26101</b>	
		NA	85	75	NA	160	
Senegal	industrial	NA	3298	3215	0	6513	
		0	0	0	0	0	
		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>	
		0	0	0	0	0	
	artisanal	<b>6940</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6940</b>	
		13	0	0	0	13	
		1711	0	0	0	1711	
		0	0	0	0	0	
	The Gambia	industrial	0	0	0	0	<b>0</b>
		artisanal	0	0	0	0	<b>0</b>

**Table 5.6.2:** Catch-at-age (thousands of individuals) of *Scomber japonicus* (1992–2006)/Capture par âge (milliers d'individus) de *Scomber japonicus* (1992-2006)

**Northern Fishery**

Years/age	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0	2299	261	1463	110	88	62610	37	12152	71	2958	41	134681	172	17591	985974
1	13155	1565	26747	56553	1405	37999	22715	95033	16343	85881	60942	88557	410427	464539	172745
2	4678	8192	28090	73567	7633	39083	31093	76085	65169	53292	16224	30266	70887	156846	192038
3	5993	12080	29046	41896	3856	15719	12845	11674	50813	79813	19821	35946	28838	25584	45208
4	5626	7216	35927	31173	1071	14755	6845	5296	19189	27433	9898	7981	11235	22394	3717
5	6083	7471	26798	18977	265	15817	1677	1461	2395	3771	2106	6012	1880	6857	241
6+	11781	33296	31066	23364	40	47213	551	550	517	1408	487	2483	190	542	27

**Southern Fishery**

Years/age	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0													14	2828	48580
1	6848	6991	37894	31281	23793	18141	18294	66848	63	12	40088	236819	71645	26975	246942
2	15350	19715	156637	89062	206817	90534	110903	26801	32182	4585	208932	236694	353532	56844	160077
3	23603	27810	93371	102281	174909	74331	140058	48167	122997	156792	105348	79855	147911	123936	191236
4	11207	13097	13945	114099	100991	136392	152047	72959	82528	76701	60150	36565	55114	101899	122681
5	3453	3940	1212	55418	87261	109684	101184	68534	16887	23459	27711	14948	33451	80169	86385
6+	2181	2055	31	16707	37918	74078	49161	55979	63983	43618	30572	5765	37683	41780	47617

**Catch-at-age total (Northern+Southern) Fishery**

Years/age	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
0	2299	261	1463	110	88	62610	37	12152	71	2958	41	134681	186	20419	1034554
1	15642	5046	51103	70302	27127	48848	40772	151769	15873	70749	100404	468151	482072	491514	419686
2	15661	16457	146038	130168	230865	112781	141176	96459	94187	47673	223760	384103	424419	213690	352114
3	23143	23524	96779	115399	192448	78353	152020	56104	168162	194889	124392	166615	176749	149519	236444
4	13163	11979	39427	116275	109874	131514	157974	73367	98411	85774	69614	64093	66349	124293	126398
5	7457	6730	22144	59545	94225	109199	102267	65623	18655	22429	29632	30158	35331	87026	86627
6+	10918	20848	24584	32073	40863	105537	49425	52998	62404	37087	30866	9078	37873	42322	47644

Age-length key from Russian Federation.

**Table 5.6.3:** Mean weight-at-age (kg) of *Scomber japonicus* (1992–2006) for the Southern stock/Poids moyen par classe d'âge (kg) de *Scomber japonicus* (1992-2006) pour le stock Sud

Years/age	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006*
<b>0</b>															
<b>1</b>	0.117	0.117	0.061	0.057	0.048	0.052	0.060	0.049	0.108	0.119	0.084	0.071	0.086	0.076	0.064
<b>2</b>	0.213	0.213	0.152	0.128	0.121	0.133	0.136	0.188	0.183	0.211	0.162	0.162	0.141	0.119	0.096
<b>3</b>	0.348	0.348	0.253	0.227	0.219	0.213	0.228	0.269	0.307	0.278	0.280	0.266	0.227	0.201	0.132
<b>4</b>	0.511	0.511	0.364	0.353	0.339	0.335	0.341	0.390	0.436	0.450	0.361	0.371	0.410	0.269	0.207
<b>5</b>	0.728	0.728	0.515	0.503	0.498	0.498	0.493	0.529	0.574	0.603	0.427	0.452	0.643	0.382	0.315
<b>6+</b>	0.961	0.883	0.687	0.914	0.719	0.768	0.894	0.745	1.075	0.910	0.624	0.541	0.864	0.556	0.48

\* the same as 2005

**Table 5.6.4:** Percentage of maturity by age groups of *Scomber japonicus*/Pourcentage de maturité par classe d'âge de *Scomber japonicus*

Age	0	1	2	3	4	5	6+
<b>% of maturity</b>	0	0.2	0.8	1	1	1	1

**Table 6.2.1:** Catches (tonnes) of *Engraulis encrasicolus* (1990–2006) by zone, fleet and year/Captures (en tonnes) d'*Engraulis encrasicolus* (1990-2006) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Morocco Zone North	Moroccan										
Morocco Zone A	Moroccan										
Morocco Zone B	Moroccan										
Zone C, north of C. Blanc	Moroccan										
Total Morocco	Moroccan	10324	19125	16635	10310	7516	10257	12039	24697	40403	30373
	Russian										
	Ukrainian and others										
Mauritania	EU industrial		8279	17358	6489	2612	986	3609	34511	79162	93164
	other industrial										
	artisanal										
	all										
Senegal	industrial										
	artisanal										
The Gambia	industrial										
	artisanal										
	<b>all fleets</b>	<b>10324</b>	<b>27404</b>	<b>33993</b>	<b>16799</b>	<b>10128</b>	<b>11243</b>	<b>15648</b>	<b>59208</b>	<b>119565</b>	<b>123537</b>

Country	Fleet	2000	2001	2002	2003	2004	2005	2006*
Morocco Zone North	Moroccan					1561	1837	1440
Morocco Zone A	Moroccan					5380	2393	1407
Morocco Zone B	Moroccan					126	1538	6828
Zone C, north of C. Blanc	Moroccan						305	362
Total Morocco	Moroccan	22096	47417	18473	17000	7068	6073	10037
Mauritania	Russian, Ukrainian and others					104934	51589	74691
	EU industrial					270	167	35249
	other industrial					31573	26334	
	artisanal							
Total Mauritania	all	104090	105350	136232	162854	136777	78090	109940
Senegal	industrial							
	artisanal							
The Gambia	industrial							
	artisanal							
<b>TOTAL</b>	<b>all fleets</b>	<b>126186</b>	<b>152767</b>	<b>154705</b>	<b>179854</b>	<b>143845</b>	<b>84163</b>	<b>119977</b>

\*Preliminary

**Table 6.2.1:** Sampling intensity of *Engraulis encrasicolus* (2006) by country (zone) and fleet/  
 Intensité d'échantillonnage d'*Engraulis encrasicolus* (2006) par pays (zone) et flottille

Country	Fleet	Q1	Q2	Q3	Q4	2006	
country x	fleet y	total catch in tonnes					
		number of samples					
		number of fish measured					
		number of fish aged					
Morocco Zone North	Moroccan	NA	NA	NA	NA	1440	
Morocco Zone A	Moroccan	164	936	253	54	1407	
		18	26	15	9	68	
		3044	4231	2013	1630	10918	
		76	140	30	45	291	
Morocco Zone B	Moroccan	5	1589	4081	1153	6828	
		7	8	2	4	21	
		617	1261	30	531	2439	
		NO SAMPLING					
Zone C, north of C. Blanc	Moroccan	NO SAMPLING					
	Russian	NA	NA	NA	NA	340	
	Ukrainian and others	NA	NA	NA	NA	22	
Mauritania	EU	9300	10356	5653	9940	35249	
		1	NA	NA	NA	1	
		84	NA	NA	NA	84	
	NO SAMPLING						
	Russian, Ukrainian and others	22308	17980	18487	15916	74691	
		NA	NA	1	NA	1	
		NA	NA	6	NA	6	
	NO SAMPLING						
	others	NO SAMPLING					
		NO SAMPLING					
		NO SAMPLING					
		NO SAMPLING					
artisanal	NO SAMPLING						
	NO SAMPLING						
	NO SAMPLING						
	NO SAMPLING						
Senegal	industrial	NO SAMPLING					
		NO SAMPLING					
		NO SAMPLING					
		NO SAMPLING					
	artisanal	NO SAMPLING					
		NO SAMPLING					
		NO SAMPLING					

**Table 7.2.1:** Catches (tonnes) of *Ethmalosa fimbriata* (1990–2004) by zone, fleet and year/Captures (tonnes) d'*Ethmalosa fimbriata* (1990-2004) par zone, flottille et année

Zone	Fleet	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Morocco Zone North	Moroccan										
Morocco Zone A	Moroccan										
Morocco Zone B	Moroccan										
Zone C, north of C. Blanc	Moroccan										
	Russian										
	Ukrainian and others										
Mauritania	EU industrial										
	other industrial										
	artisanal										
	all										
Senegal	industrial										
	artisanal	14785	11542	12164	17332	13504	15686	17462	16423	13833	20540
The Gambia	industrial										
	artisanal	8039	17646	12019	14053	16897	13897	22648	21523	21952	16115
<b>Total</b>	<b>all fleets</b>	<b>22824</b>	<b>29188</b>	<b>24183</b>	<b>31385</b>	<b>30401</b>	<b>29583</b>	<b>40110</b>	<b>37946</b>	<b>35785</b>	<b>36655</b>

Zone	Fleet	2000	2001	2002	2003	2004	2005	2006*
Morocco Zone North	Moroccan							
Morocco Zone A	Moroccan							
Morocco Zone B	Moroccan							
Zone C, north of C. Blanc	Moroccan							
	Russian							
	Ukrainian and others							
Mauritania	EU industrial							
	other industrial							
	artisanal	4026	6378	12899	8298	1680	4545	4545
	all							
Senegal	industrial							
	artisanal	15227	24471	11828	13095	9792	8731	10861
The Gambia	industrial							
	artisanal	20508	18516	18701	22118	16052	19881	20000
<b>Total</b>	<b>all fleets</b>	<b>39761</b>	<b>49365</b>	<b>43428</b>	<b>43511</b>	<b>27524</b>	<b>33157</b>	<b>35406</b>

\*preliminary

**Table 7.2.1:** Sampling intensity of *Ethmalosa fimbriata* (2006) by country (zone) and fleet/  
Intensité d'échantillonnage d'*Ethmalosa fimbriata* (2006) par pays (zone) et flottille

Country	Fleet	Q1	Q2	Q3	Q4	2006
country x	fleet y	total catch in tonnes				
		number of samples				
		number of fish measured				
		number of fish aged				
Morocco Zone North	Moroccan	NO SAMPLING				
Morocco Zone A	Moroccan					
		NO SAMPLING				
Zone C, north of C. Blanc	Moroccan	NO SAMPLING				
	Russian	NA	NA	NA	NA	NA
	Ukrainian and others	NA	NA	NA	NA	NA
Mauritania	EU	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA				
	Russian, Ukrainian and others	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NO SAMPLING				
	others	NO SAMPLING				
		NO SAMPLING				
		NO SAMPLING				
		NO SAMPLING				
		NO SAMPLING				
	artisanal	NO SAMPLING				
NO SAMPLING						
NO SAMPLING						
NO SAMPLING						
Senegal	industrial	NO SAMPLING				
		NO SAMPLING				
		NO SAMPLING				
		NO SAMPLING				
	artisanal	NA	NA	NA	NA	10861
		2	10	5	1	18
		130	411	178	40	759
		NA	NA	NA	NA	NA
The Gambia	industrial	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA
	artisanal	NA	NA	NA	NA	20000
		NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA