

## 8.11 SMT - SMALL TUNAS

### SMT-1. Biology

Small tunas include the following species:

- Blackfin tuna (*Thunnus atlanticus*) – BLF
- Bullet tuna (*Auxis rochei*) – BLT
- Bonito (*Sarda sarda*) – BON
- Plain bonito (*Orcynopsis unicolor*) – BOP
- Serra Spanish mackerel (*Scomberomorus brasiliensis*) – BRS
- Cero (*Scomberomorus regalis*) – CER
- Frigate tuna (*Auxis thazard*) – FRI
- King mackerel (*Scomberomorus cavalla*) – KGM
- Scomberomorus unclassified (*Scomberomorus* spp.) – KGX
- Atlantic black skipjack (*Euthynnus alletteratus*) – LTA
- West African Spanish mackerel (*Scomberomorus tritor*) – MAW
- Atlantic Spanish mackerel (*Scomberomorus maculatus*) – SSM
- Wahoo (*Acanthocybium solandri*) – WAH

Knowledge on the biology of small tunas is very fragmented and not all the information available has been presented at this meeting. Furthermore, the quality of the knowledge is very different according to the species concerned. This is due in large part because many of these species are considered to have little economic importance to the Atlantic tuna fleets, and to the difficulties to conduct sampling of the landings from artisanal fisheries, which constitute a high proportion of the fisheries exploiting small tuna resources. The large industrial fleets often discard small tuna catches at sea or sell them on local markets mixed with other by-catches, especially in Africa. The amount caught is rarely reported in logbooks. Scientific collaboration amongst sub-regions may help to advance understanding of the biology of these species.

These species are widely distributed in the tropical and subtropical waters of the Atlantic Ocean and some even in the Mediterranean Sea and the Black Sea. They often form large schools with other small sized tunas or related species in coastal and high seas waters. They have a varied diet with a preference for small pelagics (e.g., clupeids, mullets, carangids and ammodytes), crustaceans, mollusks and cephalopods. The reproduction period varies according to species and spawning generally takes place near the coast, where the waters are warm. The growth rate currently estimated for these species is very rapid for the first two or three years, and then slows as these species reach size-at-first maturity. Furthermore, these species are mainly coastal ones and seem to show no large migrations.

New information was submitted on age and growth for three species (bullet tuna, Atlantic little tuna and Atlantic bonito) from the trap fishery in the Western Mediterranean based on spine readings. For bullet tuna the results confirmed previous studies in the area. As regards Atlantic little tuna and Atlantic bonito some differences were detected as compared to previous studies.

New information was also submitted on the Atlantic black skipjack population structure in the Central-Eastern and South-Eastern Atlantic Ocean.

### SMT-2. Description of the fisheries

Small tunas are exploited mainly by coastal fisheries and often by artisanal fisheries, although substantial catches are also made as target species and as by-catch, by purse seine, mid-water trawlers (i.e., pelagic fisheries of West Africa-Mauritania), handline and small scale gillnet. Unknown quantities of small tuna also comprise the incidental catches of some longline fisheries. The increasing importance of FAD fisheries in the Eastern Caribbean has improved the efficiency of artisanal fisheries in catching small tunas. Various species are also caught by the sport fisheries.

**SMT-Table 1** shows historical landings of small tunas for the 1980 to 2006 period although data for last year are preliminary. This table does not include species reported as “mixed” or “unidentified”, as was the case in previous years, since these categories include large tuna species. There are more than 10 species of small tunas, but only five of these account for about 86% of the total reported catch by weight each year. These five species are: Atlantic bonito (*Sarda sarda*), frigate tuna (*Auxis thazard* which may include some catches of *Auxis rochei*), Atlantic black skipjack (*Euthynnus alletteratus*), king mackerel (*Scomberomorus cavalla*), and Atlantic Spanish mackerel (*Scomberomorus maculatus*) (**SMT-Figure 2**). In 1980, there was a marked increase in reported

landings compared to previous years, reaching a peak of about 139,412 t in 1988 (**SMT-Figure 1**). Reported landings for the 1989-1995 period decreased to approximately 87,941 t, and then an oscillation in the values in the following years up to 2006. Overall trends in the small tuna catch may mask declining trends for individual species because annual landings are often dominated by the landings of a single species. These fluctuations seem to be related to unreported catches, as these species generally comprise part of the by-catch and are often discarded, and therefore do not reflect the real catch.

A preliminary estimate of the total nominal landings of small tunas in 2006 is 27,536 t. The Committee pointed out the relative importance of small tuna fisheries in the Mediterranean Sea, which account for about 26% of the total reported catch in the 1980-2006.

In order to improve statistics, cooperation with FAO has continued and FAO figures continue to be incorporated into the ICCAT database for small tuna species where no report is received by ICCAT. Notwithstanding, this procedure should be carried out with caution since in some fisheries the problem of mixed species has been detected.

Despite the recent improvements in the statistical information provided to ICCAT by some countries, the Committee also noted that uncertainties remain regarding the accuracy and completeness of reported landings in all areas, including the Mediterranean. There is a general lack of information on the mortality of these species as by-catch, exacerbated by the confusion regarding species identification.

### ***SMT-3. State of the stocks***

There is little information available to determine the stock structure of many small tuna species. The Committee suggests that countries be requested to submit all available data to ICCAT as soon as it is possible, in order to be used in future meetings of the Committee.

Generally, current information does not allow the Committee to carry out an assessment of stock status of the majority of the species. Nevertheless, few regional assessments have been carried out. Gulf of Mexico and South Eastern United States Atlantic king mackerel were assessed in 2004. During the period 2004-2007, the CRFM undertook assessments of the Spanish mackerel, king mackerel and wahoo fisheries operating within the southeastern Caribbean. Further progress in the CRFM assessments requires improvements in statistics and estimation of key biological parameters, as well as close collaboration with neighbouring non-CRFM countries sharing these fisheries within the sub-region.

### ***SMT-4. Outlook***

The results of an ICCAT questionnaire circulated in 1996 indicate that the small tuna fisheries are very diverse and complex, involving both artisanal and industrial fisheries that employ a large variety of gears, as well as different types and sizes of vessels. The results also indicate that data collection and research, including size sampling, age and growth research, and studies on maturity and tagging, are being conducted by several countries. However, the results of these studies are often not reported to ICCAT.

Catch and effort statistics for small tunas remain incomplete for many of the coastal and industrial fishing countries. There is also a general lack of available biological information needed to assess the stocks of most of these species. On the other hand, many of these species are of importance to coastal fishermen, especially to some developing countries, both economically and as a source of protein. The Committee therefore recommends that studies be conducted on some of these species due to the small amount of information that is available to the species group. The Committee reiterates its previous recommendations on carrying out studies to determine the state of these stocks and the best way to manage them. Probably, such studies would be more effective if they are carried out at the local or sub-regional level.

### ***SMT-5. Effects of current regulations***

There are no ICCAT regulations in effect for these species of small tunas.

### ***SMT-6. Management recommendations***

Based on the information available for the major part of the stocks, the Committee recommends that these species be managed at the regional or sub-regional level.

CRFM analyses of eastern Caribbean stocks have been limited by the quality and quantity of the available data, and in view of this, changes in current management approaches have not yet been recommended.



SMT. Table 1.

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Russian Federation	0	0	0	0	0	0	0	0	0	948	29	0	0	0	0	0	0	0	0	574	1441	461	16	79	316	
Senegal	202	497	200	495	510	463	2066	869	558	824	378	227	600	354	570	1513	1857	1441	1441	1441	0	159	0	0	0	
Sierra Leone	5	5	5	10	10	10	10	10	10	4	6	0	0	0	0	0	0	0	11	245	44	0	0	0	0	
South Africa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. Vincent and Grenadines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	18	0	16	
Sta. Lucia	0	0	0	0	0	0	1	0	3	3	3	4	1	1	1	0	0	0	0	0	0	0	1	0	0	
Togo	0	0	0	254	138	245	400	256	177	172	107	311	254	145	197	197	197	197	0	0	0	0	0	0	0	
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	17	703	169	266	220	30	117	117	56	452	188	280	81	0	0	
U.S.A.	209	253	217	110	84	130	90	278	299	469	498	171	128	116	156	182	76	83	142	120	139	44	70	68	39	
U.S.S.R.	6329	2375	1290	2073	1085	1083	8882	7363	706	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UK.British Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UK.Turks and Caicos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ukraine	0	0	0	0	0	0	1385	985	0	25	0	0	0	0	342	2786	1918	1114	399	231	1312	30	0	0	0	
Uruguay	0	1	0	0	3	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Venezuela	864	554	748	774	1401	1020	1153	1783	1514	1518	1454	5	1661	1651	1359	1379	1659	1602	2	0	61	13	0	16	18	
<b>MEDI TOTAL</b>	<b>28937</b>	<b>35546</b>	<b>15058</b>	<b>17959</b>	<b>15428</b>	<b>22317</b>	<b>24028</b>	<b>11955</b>	<b>22097</b>	<b>25255</b>	<b>15111</b>	<b>25997</b>	<b>15682</b>	<b>15189</b>	<b>17195</b>	<b>14078</b>	<b>29730</b>	<b>28170</b>	<b>21972</b>	<b>22236</b>	<b>15716</b>	<b>11117</b>	<b>10900</b>	<b>74375</b>	<b>31651</b>	
Albania	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	
Algerie	860	867	874	880	459	203	625	1528	1307	261	315	471	418	506	277	357	511	475	405	350	597	0	609	575	684	
Croatia	0	0	0	0	0	0	0	0	0	49	128	6	70	0	0	25	120	0	0	0	0	0	0	0	0	
EC.Bulgaria	4	24	1	1	0	13	0	0	17	17	20	8	0	25	33	16	51	20	35	35	35	0	0	0	0	
EC.Cyprus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	10	10	6	4	3	
EC.España	990	1225	984	1045	729	51	962	609	712	686	228	200	344	632	690	628	333	433	342	349	461	544	272	215	429	
EC.France	0	33	16	0	0	0	10	0	1	10	5	6	0	0	0	0	0	0	0	0	27	0	0	0	0	
EC.Greece	1405	1367	1732	1321	1027	1848	1254	2534	2690	2690	2690	1581	2116	1752	1559	945	2135	1914	1550	1420	1538	1321	1390	845	0	
EC.Italy	1102	1806	2777	1437	1437	2148	2242	1369	1244	1087	1288	1238	1828	1512	2233	2233	2233	4159	4159	4159	4579	2091	2009	1356	0	
EC.Malta	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	7	2	2	1	0	0	0	0	0	0	
Egypt	23	14	48	62	68	35	17	358	598	574	518	640	648	697	985	725	724	1442	1442	1128	1128	0	0	0	0	
Libya	0	0	0	0	0	0	0	0	0	0	71	70	0	0	0	0	0	0	0	0	0	0	0	0	0	
Maroc	71	92	75	57	51	127	108	28	69	69	31	25	93	37	67	45	39	120	115	5	61	85	78	38	0	
NEI-2	276	452	694	359	359	537	561	342	311	311	311	300	300	300	300	75	0	0	0	0	0	0	0	0	0	
Rumania	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Serbia & Montenegro	0	0	0	0	0	0	0	0	0	45	0	3	2	6	10	12	12	14	17	17	0	0	0	0	0	
Tunisia	748	600	600	482	504	500	600	422	488	305	643	792	305	413	560	611	855	1350	1528	1183	1112	848	1251	0	0	
Turkey	23397	29034	7220	12281	10756	16793	17613	4667	14737	19151	8863	19548	10093	8944	10284	7810	24000	17900	12000	13460	6286	6000	5354	70797	29690	
U.S.S.R.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Yugoslavia Fed.	61	31	37	34	38	62	36	98	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>BOP TOTAL</b>	<b>BOP</b>	<b>584</b>	<b>38</b>	<b>49</b>	<b>133</b>	<b>87</b>	<b>564</b>	<b>1482</b>	<b>1116</b>	<b>457</b>	<b>588</b>	<b>600</b>	<b>601</b>	<b>775</b>	<b>640</b>	<b>2136</b>	<b>476</b>	<b>159</b>	<b>844</b>	<b>1193</b>	<b>984</b>	<b>917</b>	<b>729</b>	<b>513</b>	<b>139</b>	<b>3</b>
<b>ATL TOTAL</b>	<b>584</b>	<b>38</b>	<b>49</b>	<b>124</b>	<b>86</b>	<b>538</b>	<b>1474</b>	<b>1109</b>	<b>420</b>	<b>487</b>	<b>424</b>	<b>349</b>	<b>599</b>	<b>525</b>	<b>2004</b>	<b>249</b>	<b>29</b>	<b>627</b>	<b>1048</b>	<b>830</b>	<b>780</b>	<b>706</b>	<b>506</b>	<b>137</b>	<b>3</b>	
Benin	2	1	1	1	3	1	2	1	1	1	1	1	1	1	1	3	1	1	0	0	0	0	0	0	0	
EC.Portugal	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	
Maroc	483	0	0	83	33	487	1422	1058	369	486	423	348	598	524	2003	246	28	626	1048	830	780	706	503	132	0	
Mauritania	99	37	40	40	50	50	50	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Senegal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	
<b>MEDI TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>26</b>	<b>8</b>	<b>7</b>	<b>37</b>	<b>101</b>	<b>176</b>	<b>252</b>	<b>176</b>	<b>115</b>	<b>132</b>	<b>227</b>	<b>130</b>	<b>217</b>	<b>145</b>	<b>154</b>	<b>137</b>	<b>23</b>	<b>8</b>	<b>2</b>	<b>0</b>	
Algerie	0	0	0	0	0	0	0	0	0	87	135	198	153	92	119	224	128	216	135	145	128	0	0	0	0	
EC.Portugal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Libya	0	0	0	0	0	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Maroc	0	0	0	9	1	26	8	7	37	14	1	14	23	23	13	3	2	1	10	9	9	20	7	1	0	
Tunisie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	
<b>BRS TOTAL</b>	<b>6019</b>	<b>6632</b>	<b>8129</b>	<b>3501</b>	<b>6549</b>	<b>6212</b>	<b>9510</b>	<b>10778</b>	<b>7698</b>	<b>8856</b>	<b>6051</b>	<b>8049</b>	<b>7161</b>	<b>7006</b>	<b>8435</b>	<b>8004</b>	<b>7923</b>	<b>5754</b>	<b>4785</b>	<b>4553</b>	<b>7750</b>	<b>5137</b>	<b>3410</b>	<b>3712</b>	<b>1809</b>	
Brasil	4342	4511	6259	1504	5011	4741	5063	5927	2767	1437	1149	842	1149	1308	3047	2125	1516	1516	988	251	3071	2881	814	471	1432	
Grenada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	
Guyana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211	571	625	1143	308	329	441	389	494	521	377	
Trinidad and Tobago	0	0	0	0	0	0	2704	2864	2471	2749	2130	2130														

SMT. Table 1.

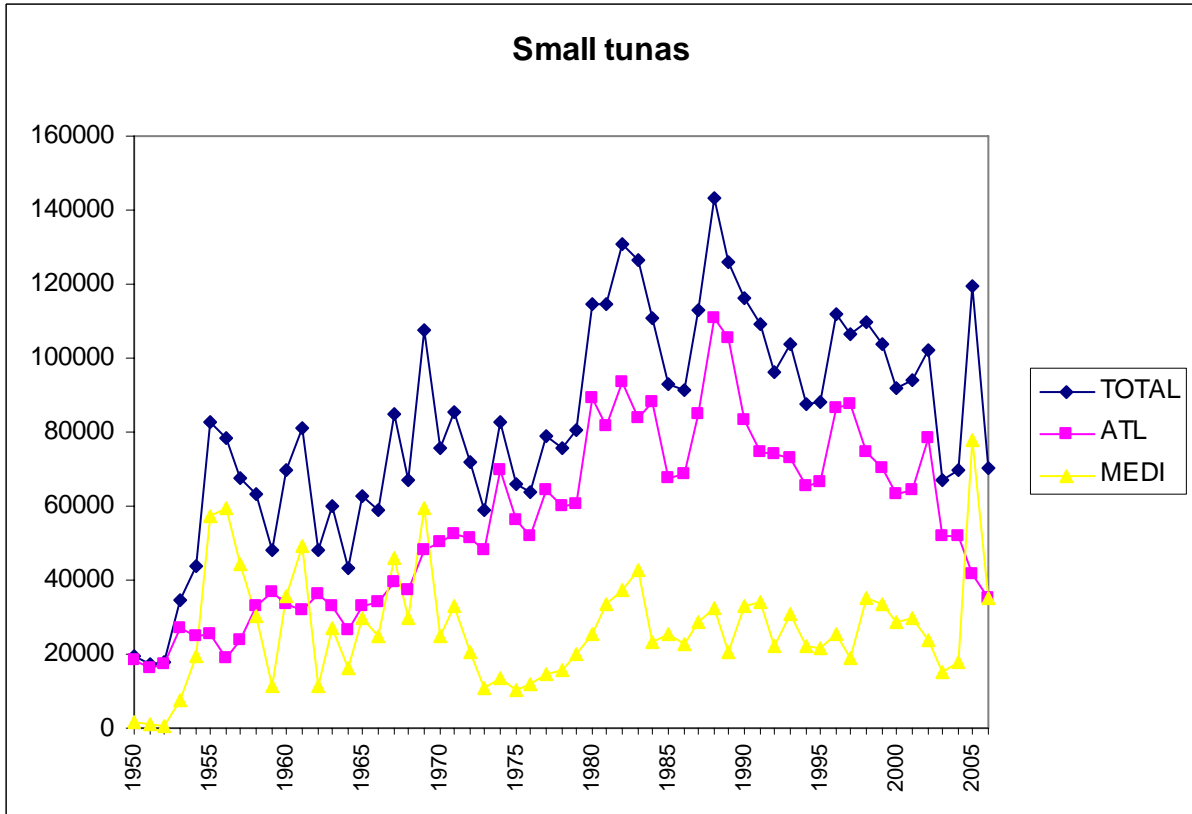
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
FRI TOTAL	25240	21690	25903	22876	20306	23407	25151	21416	23333	15424	8026	11209	10477	9870	17809	16519	14446	12615	12307	14465	15547	5192	8394	4675	4813
ATL TOTAL	19197	15870	19566	17636	15249	19667	19025	15029	14973	8853	3125	8182	5354	5569	11900	13449	12160	10548	9613	10223	10447	2742	2863	2187	2852
ATL	515	212	256	90	21	115	20	70	28	1	0	4	6	21	29	12	31	2	38	38	38	0	0	0	0
Angola	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Argentina	72	32	49	50	1	3	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benin	72	11	634	623	941	1260	1904	700	592	746	291	608	906	558	527	215	162	166	106	98	1117	860	414	532	603
Brasil	0	0	0	0	0	2	86	105	75	135	82	115	86	13	6	22	191	154	81	171	278	321	0	0	160
Cape Verde	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170
Côte D'Ivoire	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EC.Bulgaria	3128	2691	5746	3702	3164	4538	3938	1877	2240	541	228	362	297	386	947	581	570	23	17	722	438	635	34	166	73
EC.España	0	0	0	0	0	0	0	0	0	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EC.Estonia	0	0	640	416	1904	3392	3392	3008	3872	0	121	63	105	126	161	147	146	0	91	127	91	0	168	47	6
EC.France	0	0	0	0	0	0	0	0	0	243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EC.Latvia	0	0	0	0	0	0	0	0	0	290	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EC.Lithuania	0	0	14	30	32	2	2	4	26	3	0	0	0	0	0	1	31	5	9	28	5	4	6	0	3
EC.Portugal	106	55	40	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Germany Democratic Rep.	6062	5632	4530	4500	3256	4689	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Grenada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	1126	1271	198	424	302	465	194	599	1045	1131	332	274	122	645	543	2614	2137	494	582	418	441	184	542	61	247
Maroc	1984	2800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixed flags (FIS)	0	0	0	0	0	0	0	0	0	0	5174	0	0	5269	4458	4502	5772	6768	6768	6768	0	0	0	0	0
Mixed flags (FR+ES)	0	333	46	0	0	17	381	155	237	1	4	32	68	70	180	120	309	491	291	420	186	71	180	297	149
NEI (ETRO)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	590	1157	1030	1159	1122	989	710	505	474	0	150
Netherlands Antilles	0	0	0	0	0	0	0	0	0	243	57	118	341	328	240	91	0	0	0	0	0	0	394	975	970
Panama	0	0	0	0	51	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rumania	0	0	0	0	0	0	0	0	0	3249	1441	220	505	456	46	500	761	477	0	0	300	50	56	63	6
Russian Federation	0	0	32	0	0	0	0	0	0	0	0	0	0	0	79	323	0	0	0	0	0	0	0	0	0
S. Tomé e Príncipe	0	0	0	0	0	0	810	784	1082	311	201	309	309	309	0	0	0	0	0	0	0	0	0	0	0
Senegal	0	0	0	0	0	0	0	0	0	0	17	0	56	199	368	127	138	245	0	0	0	0	414	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U.S.A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U.S.S.R.	5623	1655	5903	6055	3465	2905	5638	5054	2739	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	48	0	43	0	0	0	0	0
Venezuela	509	1171	1478	1746	2109	2264	2654	2670	3037	1762	368	886	2609	2601	3083	2839	2164	1631	215	444	32	113	182	42	165
MEDI TOTAL	6043	5820	6337	5240	5057	3740	6126	6387	8360	6571	4901	3027	5123	4301	5909	3070	2286	2067	2694	4242	5099	2450	5531	2488	1960
MEDI	0	0	0	0	0	0	0	0	0	174	270	348	306	230	237	179	299	173	225	230	481	0	391	547	586
Algerie	0	0	0	0	0	0	0	0	0	24	21	52	22	28	26	26	26	26	0	0	0	0	0	0	0
Croatia	1935	2135	2301	2047	1555	631	2669	2581	2985	2226	1210	648	1124	1472	2296	604	487	669	1024	861	493	495	1009	845	1101
EC.España	0	0	0	0	0	0	0	0	0	8	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0
EC.France	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EC.Greece	2192	1887	2060	1419	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1426	1426	0	0	196	125	120	246	226	180	274
EC.Italy	1299	1494	1610	1344	1344	906	609	509	494	432	305	379	531	531	229	229	229	462	462	462	2452	1463	1819	866	0
EC.Malta	9	11	4	1	13	5	8	18	21	20	11	10	1	2	3	6	6	3	1	0	0	0	0	0	0
Maroc	77	57	52	48	175	178	811	1177	2452	1289	1644	170	1726	621	1673	562	1140	682	763	256	621	246	326	50	0
Serbia & Montenegro	0	0	0	0	0	0	0	0	0	13	1	0	0	2	6	6	6	7	8	8	0	0	0	0	0
Tunisie	517	218	294	367	538	606	588	660	985	985	35	20	13	14	13	32	93	45	15	2300	932	0	1760	0	0
Yugoslavia Fed.	14	18	16	14	32	14	41	42	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KGM TOTAL	18149	14607	13182	9964	12187	11890	13038	10835	12232	11530	12439	14462	13868	14916	17775	19712	16392	17678	16161	15349	17277	15855	12667	11609	11652
Antigua and Barbuda	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brasil	1929	2695	2588	806	2890	2173	2029	2102	2070	962	979	1380	1365	1328	2890	2398	3595	3595	2344	1251	2316	3311	247	202	316
Chinese Taipei	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dominica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	35	2	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	20	29	33	34	47	52	0	0	589	288	230	226	226	226	0	0	0	0	0
Grenada	43	40	19	0	0	0	0	0	0	0	0	0	0	0	2	4	28	14	9	4	5	0	0	0	0
Guyana	0	0	0																						



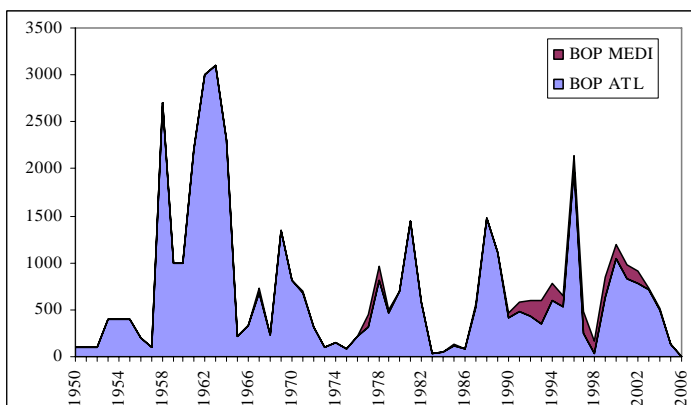
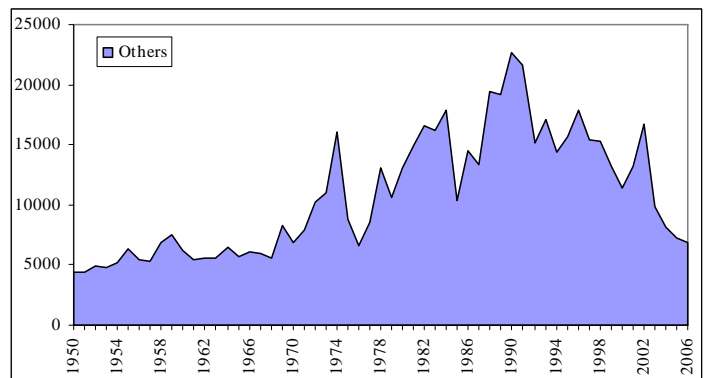
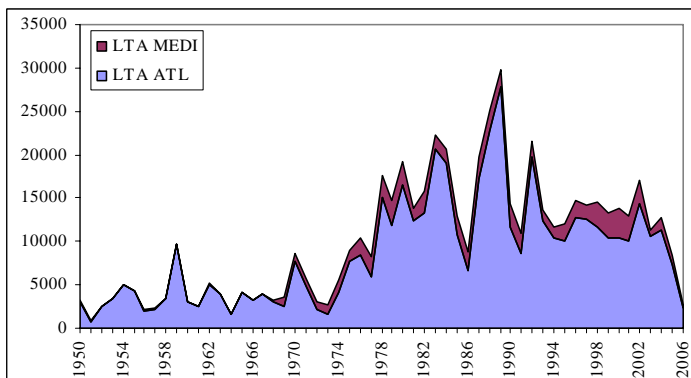
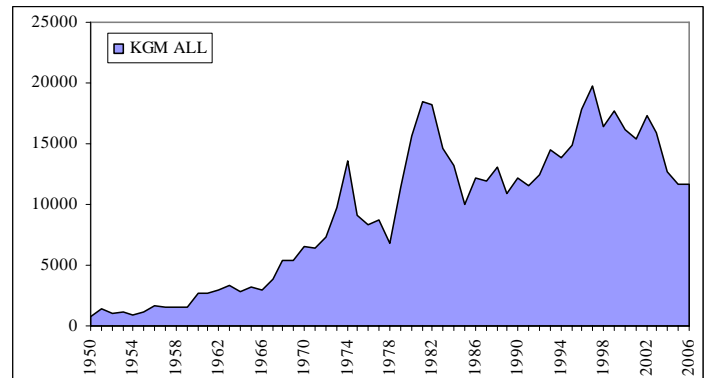
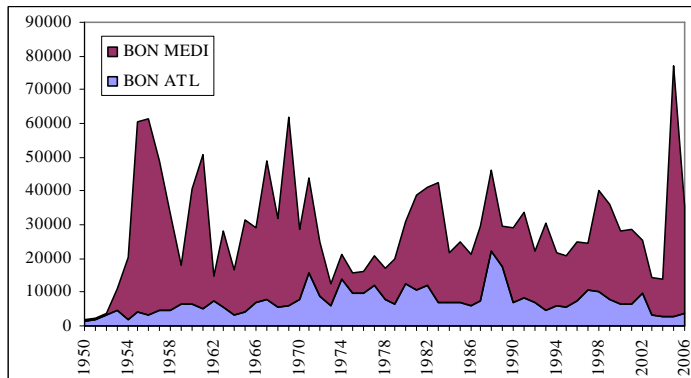
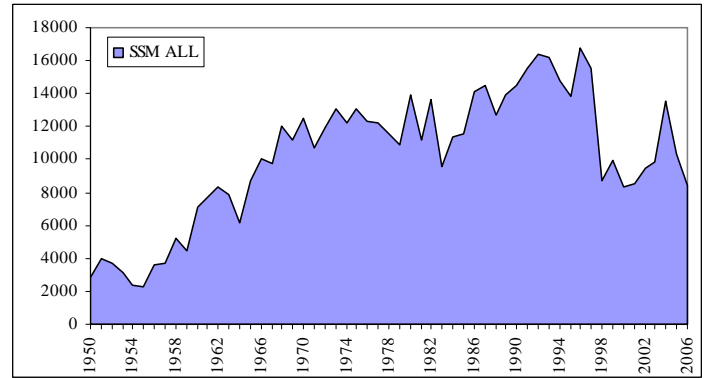
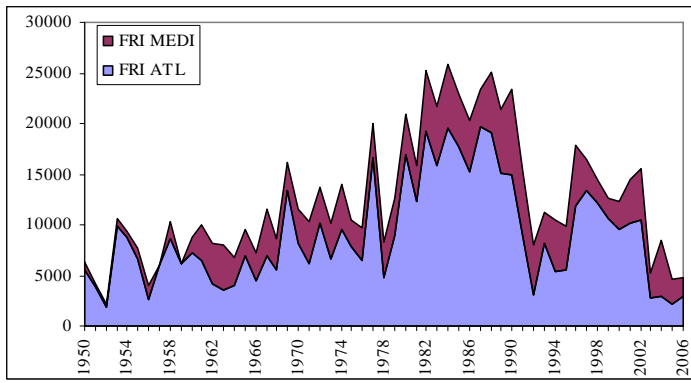


SMT. Table 1.

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	118	1	0	0	0	0	1	1	1	2	1	9	7	6	6	
U.S.A.	0	0	0	13	13	57	128	110	82	134	203	827	391	764	608	750	614	858	640	633	846	789	712	558	79
UK.Bermuda	40	49	46	46	65	43	61	63	74	67	80	58	50	93	99	105	108	104	61	56	91	87	88	83	86
UK.British Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UK.Sta Helena	9	16	23	15	15	18	18	17	18	12	17	35	26	25	23	0	0	0	0	0	0	0	0	0	0
UK.Turks and Caicos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Venezuela	175	66	125	147	113	106	141	101	159	302	333	514	542	540	487	488	360	467	4	17	13	9	7	16	13



**SMT-Figure 1.** Estimated landings (t) of small tunas (combined) in the Atlantic and Mediterranean, 1950-2006. The data for the last years are incomplete. The continuous line represents the total, the line with squares represents the Atlantic, and the line with triangles represents the Mediterranean.



**SMT-Figure 2.** Estimated landings (t) of the major species of small tunas in the Atlantic and Mediterranean, 1950-2006. The data for the last years are incomplete.