

**SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND  
BLUEFIN TUNA**

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by Caroline Raymakers and Jacqui Lynham

This project was made possible with the financial assistance of the AVINA Foundation, The Pew Charitable Trusts and WWF's Endangered Seas Campaign.



Credit: Miguel Murcia

Swordfish at auction, Garrucha, on the Mediterranean coast of Spain, in September 1998

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## ACKNOWLEDGEMENTS

TRAFFIC Europe and WWF's Endangered Seas Campaign are grateful to numerous individuals and organizations for their invaluable assistance during this project: Carlos Vallecillo, Ezequiel Navío and Juan Carlos del Olmo from WWF-Spain/Adena and Luis de Ambrosio from the Spanish Oceanographic Institute, for a wide range of logistical and administrative support; WWF-Spain/Adena's local groups in Alicante and Vigo, for providing accommodation to the researchers; fishermen in Fuenterrabia, Vigo, La Guardia, Algeciras, Cartagena and Alicante for their assistance; heads of fishermen's associations for allowing access to landing sites and for their comments, anecdotes and opinions; Don Ignacio Palacios, head of the *Servicio de Ordenación de Mercados Pesqueros* of the *Dirección General de Pesca de la Junta de Andalucía*, for facilitating access to Andalusian landing sites; numerous experts from organizations and national institutions in northern Spain; administrative personnel at landing sites; institutions in Madrid; many involved in fish trading for their advice and suggestions; staff at DGIV of the European Commission and Europe Direct; Sarah Carter of the Fisheries Library of the UK Ministry of Agriculture, Fisheries and Food, Lowestoft; staff at *Buletin Oficial del Estado* and Andrea Gaski, formerly of TRAFFIC North America and Glenn Sant of TRAFFIC Oceania, for their constructive advice in developing the project.

Thanks are also due to the people who worked directly on the project: Elizabeth Fleming, formerly of TRAFFIC Europe, for setting up the project and co-ordinating the field work; the researchers in Spain, Florencio González, Pedro Güemes, Jesús Gutierrez and Itxaso Salinas; Ana Barreira, Adriana Fabra, Virginia Gascón and Jacqui Lynham for legal research and Rodolpho Werner for his critical assistance on many levels in the earlier stages of the project. Those involved in the writing, review and editing of the report include: Esteban Fernández-Juricic, Elizabeth Fleming, Kees Lankester, Jacqui Lynham, Caroline Raymakers and Mike Sutton.

This project was made possible with the financial assistance of the AVINA Foundation, The Pew Charitable Trusts and WWF's Endangered Seas Campaign and the logistical assistance of WWF-Spain/Adena. E.H.J. Albers is thanked for providing a video camera to the project at a reduced cost.

## EXECUTIVE SUMMARY

### Background

Tunas and tuna-like species are highly migratory fish that are widespread throughout the world's oceans and seas, following seasonal migration patterns. The present report focuses on Atlantic and Mediterranean populations of two temperate species: Swordfish *Xiphias gladius* and Northern Bluefin Tuna *Thunnus thynnus*, two species which have been subject to high pressure exerted on stocks. (Northern Bluefin Tuna, also known as Atlantic Bluefin Tuna, among other names, is referred to as "bluefin tuna" by ICCAT. Given the focus of this report, that name is used for the remainder of the report to refer to *Thunnus thynnus*.)

The high commercial value of Bluefin Tuna, particularly on the Japanese market, has led to concern over the state of this fish resource in the Atlantic and resulted in controversy between fisheries experts and other parties during the past three decades. The greater rate of exploitation of wild stocks of Bluefin Tuna and Swordfish resulting from use of modern fishing gear, coupled with the lack of available information about these stocks has raised concerns among specialists.

Since the late 1960s, the International Commission for the Conservation of Atlantic Tunas (ICCAT) has been the principal body for managing tunas and tuna-like species in the Atlantic and adjacent seas. The stated objective of the Commission is to maintain the populations of these fishes in the Atlantic Ocean "at levels which will permit the maximum sustainable catch for food and other purposes". In order to achieve this objective, management recommendations are adopted on the basis of scientific advice. These are binding for all Contracting Parties to the International Convention for the Conservation of Atlantic Tunas.

Spain plays a major role in the exploitation of Swordfish and Bluefin Tuna stocks in the Atlantic and Mediterranean. The Spanish longline fleet reports landing more Swordfish than any other Party to ICCAT and Spanish fishers catch large numbers of Bluefin Tuna as well. A number of ICCAT Parties, including Spain, have consistently agreed on catch and size limits within the Commission but, according to Commission reports, appear to have great difficulties in enforcing these limits with respect to their own fishing fleets. For example, published data indicate that in 1997 a vast majority (>75%) of the Swordfish landed by the Spanish longliner fleet were smaller than the minimum size allowed by ICCAT. For this reason, Spain was chosen for pilot investigations on compliance with minimum sizes for Swordfish and Bluefin Tuna, two species under ICCAT jurisdiction.

### ***Historic non-compliance of Spanish catch of Swordfish and Bluefin Tuna with ICCAT Recommendations***

#### *Swordfish*

According to reports from ICCAT's Standing Committee on Research and Statistics (SCRS), the number of undersized Swordfish reported caught from the North Atlantic by Spain exceeded permitted tolerance levels every year for the period 1993-97.

Similarly with catch limits, according to the 1998 SCRS report, Spain exceeded its catch limit for Swordfish from the North Atlantic in 1997 and 1996, as it did in 1995, when an ICCAT quota was first introduced for the area. Records for the South Atlantic show that Spain exceeded its catch limits for Swordfish in this area from 1995 to 1997, also.

### *Bluefin Tuna*

Spain has consistently exceeded permitted tolerance levels for undersized Bluefin Tuna caught from the eastern Atlantic since 1994. Spain's compliance with ICCAT's minimum size requirements for Bluefin Tuna taken from the Mediterranean has been slightly better, exceeding specified limits in only two years, 1993-97.

As with Swordfish, Spain has demonstrated an inability to stay within the catch limits specified by ICCAT for Bluefin Tuna and limits were exceeded by 19%, 58% and 51% for 1995, 1996 and 1997, respectively.

### ***Spain's role as a Swordfish and Bluefin Tuna fishing nation in the context of ICCAT***

The Spanish longline fleet reports landing more Swordfish than any other Party to ICCAT and in 1997 Spain had a 45% share of the Atlantic Swordfish fishery. The Spanish fleet provides about ESP17 billion (USD11.88 million) from Swordfish sales at auction and about 35 000 jobs. However, of the total of 36 378 t of Swordfish landed and/or imported into Spain in 1997, only 38% (13 896 t) were consumed in Spain. The remainder was exported - 85% to Italy, in 1998. The main suppliers of Swordfish to Spain in that year were Morocco (1052 t of fresh/chilled product) and Singapore (1068 t of frozen product, excluding fillets). Although the Spanish catch of Swordfish may have declined slightly in recent years, it is possible that the Spanish fish processing industry has not scaled down, but compensated for the decrease in domestic landings with importation of catch from other countries.

Spain is also a major player in the eastern Atlantic and Mediterranean bluefin fishery and in 1998 Spanish records of landings of tunas and tuna-like species were among the highest for countries fishing in the North Atlantic and Mediterranean. Of all Bluefin Tuna landed and/or imported in Spain in 1997, only 35% was consumed in Spain, the remainder constituting a valuable export trade and one which is acknowledged to be a main cause behind recent increases in Bluefin Tuna catch in the Atlantic and Mediterranean. In 1998, this trade was worth USD70 million for fresh/chilled Bluefin Tuna alone. While Japan was the main destination for Spanish Bluefin Tuna in 1998, France was the main supplier to Spain.

Although Spain holds a prominent position in Atlantic and Mediterranean fisheries for Bluefin Tuna and Swordfish, it is noteworthy that other countries (Japan, Brazil and Morocco, for example) are increasing their fishing effort for these fish and Spain is not alone as a major fisher of Swordfish and Bluefin Tuna surpassing catch limits and landing undersized fish. The differences between target levels agreed within ICCAT and reported catch levels of Bluefin Tuna from France, Italy, Japan and Morocco in 1997 were equally large or greater than such differences for Spain.

### **Methods**

As part of the investigations for this study, experts researched the regulatory framework governing catches and landings of Swordfish and Bluefin Tuna in force in Spain for Spanish fisheries (as of August 1999). The research was conducted by consulting ICCAT reports, European Commission reports, European Council Regulations and Spanish national legislation.

From July to September 1998, surveys at fish auctions were conducted at selected landing sites on the Atlantic and Mediterranean coasts of Spain. The landing of Swordfish and Bluefin Tuna smaller than the

minimum sizes recommended by ICCAT were recorded. The selected sites were: Vigo (for Swordfish), Fuenterrabia (for Bluefin Tuna), and Aguilas, Algeciras, Alicante, Cartagena and Garrucha for both Swordfish and Bluefin Tuna. Investigators openly interviewed fishermen, producers, government observers and other experts at the landing sites to obtain relevant data on fishing areas, prices, markets, trade routes and other aspects of the fishery and trade. They visited a number of fresh fish markets in Spain to gather additional information.

## **Results**

### ***Regulatory framework for Spanish Swordfish and Bluefin Tuna fisheries***

Besides ICCAT, the General Fisheries Commission for the Mediterranean (GFCM) has been set up to regulate fishing activities in the Mediterranean and is in collaboration with ICCAT. The European Union (EU) has adopted a series of Regulations to effect compliance with the measures recommended by ICCAT. Spain, as a Member State of the EU, has the obligation to adopt and enforce these. Most Recommendations of ICCAT and the GFCM and EU Regulations have been transferred into Spanish legislation, with linked enforcement sanctions.

The minimum size limits for Swordfish and Bluefin Tuna applicable during the survey of landing sites in Spain, 1998, were as follow.

#### *Minimum sizes for Swordfish*

The minimum size limit adopted by ICCAT for Swordfish taken from both the North and the South Atlantic is 25 kg (or 125 cm, measured from the tip of the lower jaw to the tail fork (LJFL)). There is an allowance for boats taking fish smaller than this caught accidentally, providing that this incidental catch does “not exceed 15% of the number of fish per landing of the total swordfish catch of said boats”. Although there are no ICCAT management measures in effect for Mediterranean Swordfish, the EU has established a minimum size of 120 cm (LJFL) for this fishery, with a 0% tolerance limit, in the territorial waters of the EU Member States in the Mediterranean.

#### *Minimum sizes for Bluefin Tuna*

A minimum size limit of 6.4 kg per Bluefin Tuna was adopted by ICCAT for the entire Atlantic and the Mediterranean in 1975. There is an allowance for boats taking fish smaller than this, caught accidentally, providing that this incidental catch does “not exceed 15% of the number of fish per landing of the total bluefin catch of said boats or its equivalent in percentage by weight”. The EU requires that Bluefin Tuna from the Atlantic and the Mediterranean be at least 6.4 kg (or 70 cm, measured from jaw to tail fork (FL)) with the same tolerance level, i.e. 15%. In 1997, a prohibition on the retaining on board, landing and sale of age 0 fish (<1.8 kg) by Contracting and non-Contracting Parties to ICCAT came into force.

### ***Surveys at landing sites in Spain, summer 1998***

#### *Swordfish*

From 7 July to 29 September 1998, researchers monitored the landing of 13 895 Swordfish by 249 long-liners, 11 798 from the North Atlantic and 2097 from the Mediterranean. From the North Atlantic, 37%

(4317 out of 11 798 fish) were below the ICCAT minimum size limit of 25 kg. From the Mediterranean, 86% (1806 out of 2097 Swordfish) were below this weight limit.

#### *Bluefin Tuna*

From 13 July to 30 September 1998, investigators recorded the landing of 18 225 Bluefin Tuna from 64 fresh bait tuna vessels and 10 longliners. Of these, 17 971 fish were from the eastern Atlantic and 254 from the Mediterranean. Of tuna from the eastern Atlantic, 9091 (51%) failed to meet ICCAT minimum size requirements, i.e. they weighed less than 6.4 kg (fresh weight). Of those from the Mediterranean, 210 (83%) were below this limit.

Bluefin Tuna weighing less than 1.8 kg were not observed during the surveys.

#### ***By-catch of Spanish Swordfish landings: 1998 survey findings***

During the field surveys, by-catch of Blue Sharks *Prionace glauca* and Mako Shark or Short-finned Mako *Isurus oxyrinchus* were landed by Swordfish longliners from the Atlantic. The by-catch of these two species of shark represented 68% of these “Swordfish catches” observed, while about a quarter of landings from the Mediterranean Swordfish fishery were composed of Blue Shark.

#### **Conclusions**

The high percentages of undersized Swordfish and Bluefin Tuna seen landed at Spanish harbours support SCRS records of undersized landings since 1993. These records and the survey findings show that the ICCAT minimum size limit Recommendations are not being implemented by fishing companies nor being enforced by Spanish authorities. Key ICCAT Recommendations and EU Regulations have been incorporated into Spanish legislation, but an efficient enforcement scheme for vessels landing their catch in Spain in violation of the law appears to be lacking.

The Mediterranean stands out as an area where minimum size limits for Bluefin Tuna are seemingly flouted, if survey results are indicative. This relatively poor level of compliance in the Mediterranean serves to emphasize the urgent need for ICCAT provisions specifically dealing with management in the Mediterranean Sea.

Surveys of ICCAT reports of Spanish non-compliance with Recommendations for catch limits revealed that Spanish Swordfish catches in the North and South Atlantic and bluefin catches in the East Atlantic management area, 1995-97, were out of compliance. However, it is recognized that Spain is not the only ICCAT Party to exceed set limits for its Swordfish and Bluefin Tuna fisheries and that France, Japan, Italy, Morocco and the USA, for example, also have problems with compliance.

Since international trade trends, such as the rising prices of chilled fresh Bluefin Tuna in Japan in recent years, play a role in the evolution of fishing pressure, legal mechanisms to monitor the trade in Bluefin Tuna adopted by ICCAT and by EU Member States for Bluefin Tuna are appropriate.

The surveys reported significant landings of shark by-catch among the Atlantic and Mediterranean Swordfish landings, particularly of Blue Sharks, and this finding suggests that ICCAT should address the insufficient selectivity of Swordfish longlines.

During background research for the present study several obstacles that slow the progress towards attainment of ICCAT's objective, besides those already mentioned, were identified and these are addressed in the **Recommendations** of this report.

## **Recommendations**

### ***ICCAT should endeavour to:***

- Recommend management of the Swordfish fishery in the Mediterranean.
- Establish strict measures (such as quota reductions) to penalize those fishing nations supplying poor quality annual reports (or no report) of their Bluefin Tuna and Swordfish fishing activities.
- Establish no-fishing zones for Swordfish and Bluefin Tuna, particularly in the Mediterranean.
- Set up programmes to record discards and by-catch from Swordfish and Bluefin Tuna fishing vessels, particularly with reference to sharks in the Atlantic.
- Ensure that fishing nations provide the Commission with annual reports of observations of fishing activities in violation of ICCAT's requirements.
- Ensure that fishing nations report all landings in their ports and transshipments in their territorial waters.

### ***Atlantic and Mediterranean Swordfish and Bluefin Tuna fishing nations should:***

- Prioritize the establishment of measures to control the Swordfish fishery in the Mediterranean, particularly with regard to Italy.
- Step-up efforts to adopt legislation (where necessary) defining legal sanctions and penalties in case of violation of ICCAT requirements by fishing vessels in their territorial waters, and apply these sanctions.
- Adopt legal measures to monitor the trade of Swordfish and Bluefin Tuna products and tackle irregular cases.
- Designate a unique agency to centralize, compile and report accurate, comprehensive and consistent annual fishing records for submission to international institutions such as ICCAT and FAO.

### ***Recommendations to other international institutions and organizations***

- An EU Regulation should urgently be prepared and adequate measures adopted to manage the Swordfish fishery of Member States in the Mediterranean, particularly that of Italy.
- Independent surveys, similar to the one reported in the present document, should be carried out by international independent bodies, including NGOs. These surveys would be undertaken in other key fishing countries and cover the same species, or others, including by-catch species.
- National institutes and non-governmental bodies should start research programmes to examine volumes and composition of by-catch and the possibility of increasing the selectivity of fishing gears, particularly of Swordfish longlines.

Ultimately these actions are intended to help Swordfish and Bluefin Tuna populations in the region recover and to bring about sustainable fisheries.

## BACKGROUND

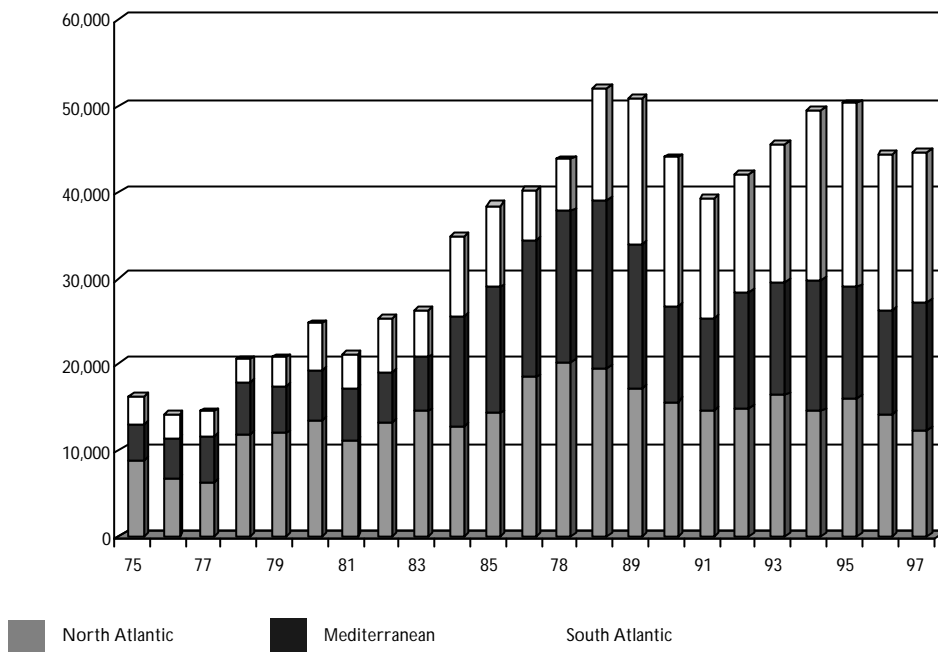
Tunas and tuna-like species appearing in commercial catch statistics comprise about 59 species of the Order Scombriformes: 48 species of Scombridae, 10 Istiophoridae (billfishes) and one Xiphiidae (Swordfish *Xiphias gladius* - also a billfish) (Anon., 1998). They are highly migratory species that occur throughout the world's oceans and seas between 50°N and 50°S latitude, according to seasonal movements. Among tunas and tuna-like fish, 31 species are known to exist in the Atlantic Ocean (Miyake, 1990). The present report focuses on Atlantic and Mediterranean populations of two temperate species: Swordfish and Northern Bluefin Tuna *Thunnus thynnus*. (Northern Bluefin Tuna, also known as Atlantic Bluefin Tuna, among other names, is referred to as "bluefin tuna" by ICCAT. Given the focus of this report, that name is used in the remainder of the text to refer to *Thunnus thynnus*.)

The pressure on fish stocks under national jurisdiction as well as in the open seas has increased considerably with the development of industrialized fishing techniques in the second half of the twentieth century (see **Figures 1 and 2**). The recognition of the exclusive economic zone (EEZ) concept in 1982 under the United Nations Convention on the Law of the Sea (UNCLOS) did not slow down the process. The high commercial value of Bluefin Tuna, particularly on the Japanese market, has led to concern over the state of this fish resource in the Atlantic and resulted in controversy between fisheries experts and other parties during the past three decades. The greater potential for over-exploitation of wild stocks of Bluefin Tuna and Swordfish as a result of the use of modern fishing gear coupled with the lack of available information has raised concerns among specialists. Moreover, tunas and billfishes are of considerable socio-economic importance in a growing number of countries because they are the target of an increasing number of sport fishers, although this may not be reflected in catch statistics (Fonteneau, 1997). Actions at international levels to promote rational and sustainable utilization of marine fisheries resources have resulted in the creation of international instruments, such as the International Commission for the Conservation of Atlantic Tunas (ICCAT) established in 1969; the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific Region (1989); the Convention for the Conservation of Southern Bluefin Tuna (CCSBT) (1993); and the Agreement for the implementation of UNCLOS provisions relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (SS/HMS) (1995) (Tsamenyi and McIlgorm, 1997).

Fisheries targeting Atlantic and Mediterranean populations of Swordfish and Bluefin Tuna are under ICCAT jurisdiction, the objective of which is stated in the preambular text of the Convention as "maintaining the populations of tunas and tuna-like fishes in the Atlantic Ocean at levels which will permit the maximum sustainable catch". In August 1999, 27 nations were Contracting Parties to ICCAT. During the 30 years of ICCAT's existence, a long list of Recommendations on annual catch quotas, minimum size limits for species and numerous other conservation measures have been adopted by Contracting Parties to control and monitor fisheries. In order to keep Swordfish and Bluefin Tuna from over-exploitation in the Atlantic Ocean and its adjacent seas, decreasing annual catch quotas have been set for Contracting and non-Contracting Parties fishing in most areas under ICCAT purview. However, the catch levels of Swordfish and Bluefin Tuna, as reported by nations in past decades, show significant increase in fishing pressure in the region (**Figures 1 and 2**). Actions by Contracting Parties to enforce both annual quotas and minimum size limits have had little effect on their own fishing fleets, nor on foreign vessels landing catch in the ports of Contracting Parties. The apparent incapacity of ICCAT Parties to observe ICCAT requirements relating to Swordfish and Bluefin Tuna is of major concern to the Parties themselves and they have recognized that firm actions should be taken to curb violations.

Figure 1

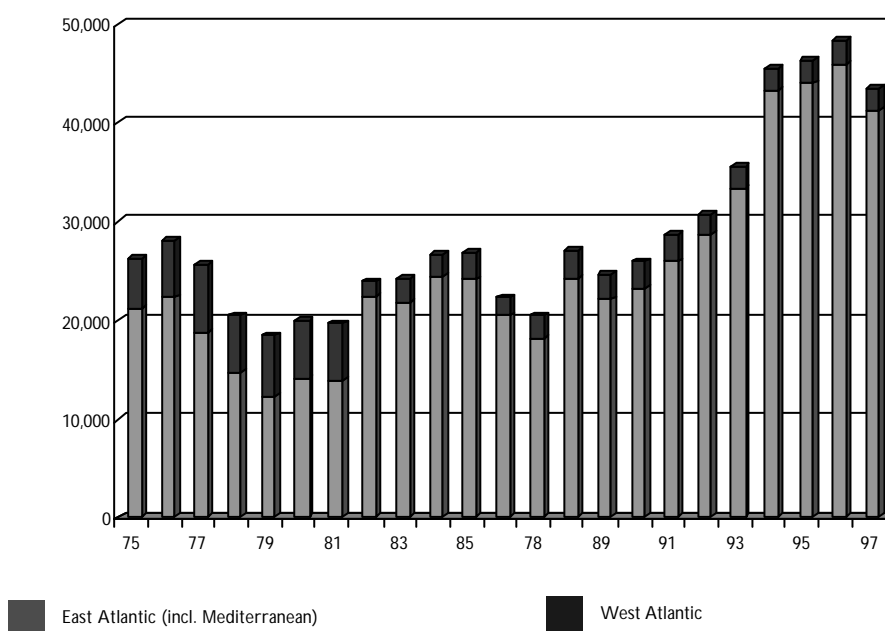
Swordfish landings (t) 1975-97



Source: ICCAT SCRS report, 1998.

Figure 2

Bluefin Tuna landings (t) 1975-97



Source: ICCAT SCRS report, 1998.

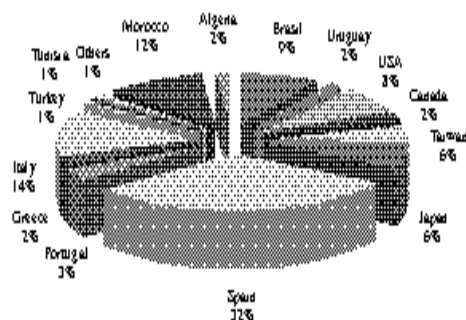
ICCAT has begun to address some of the compliance issues in recent years, particularly for major Swordfish and Bluefin Tuna fishing nations (see **Figures 3 and 4**). In 1996 and 1997, it adopted provisions for approving trade sanctions (following warnings) against Contracting Parties and non-member countries, which consistently violate ICCAT Recommendations. Although these measures have been applied to a few non-member nations, they have not yet been enforced on any Contracting Party. In 1998, ICCAT adopted two compliance resolutions: one establishes a mechanism for setting catch limits for a management period subsequent to one in which an over-harvest has occurred; the other determines additional data and information to be included in the Contracting Parties' national reports to ICCAT.

Spain, as a significant player in Atlantic and Mediterranean Swordfish and Bluefin Tuna fisheries (**Figures 3 and 4**), was the country selected by this study for pilot surveys of compliance with ICCAT Recommendations on Swordfish and Bluefin Tuna minimum size limits. Comprehensive data are available on Spanish catches, including catches of undersized fish and these have been submitted for several years to ICCAT by the responsible Spanish authority. These were also reviewed, as part of the background research for this report (see following section), while a survey of the regulatory framework applying to Spanish Bluefin Tuna and Swordfish fisheries was conducted in parallel to field research in Spain (July-September 1998). Researchers in Spain undertook to record the number of Swordfish and Bluefin Tuna under the ICCAT-specified minimum weight landed for auction at selected ports. They also set out to collect any additional useful information from survey sites and other fish markets.

Figure 3

Swordfish landings (excl. reported discards) from South and North Atlantic and Mediterranean Sea in 1997.

Total: 44 724 t



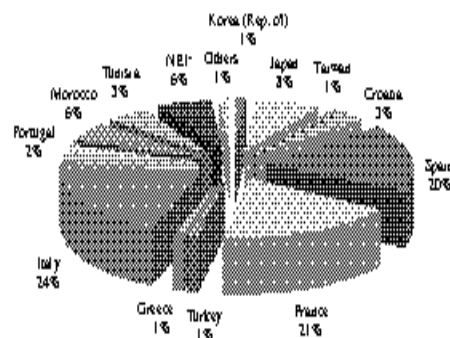
Notes: Total for South Atlantic: 17 544 t  
(Projection for 1997: 21 000 t);  
Total for North Atlantic: 12 510 t  
(Quota for 1997: 11 300 t)  
Total for Mediterranean Sea: 14 670 t

Source: ICCAT SCRS report, 1998

Figure 4

Bluefin Tuna landings (excl. reported discards) in the East Atlantic (incl. the Mediterranean) in 1997.

Total: 41 255 t



Note: \* NEI, Not Elsewhere Included

Source: ICCAT SCRS report, 1998.

### Spain's historic compliance with ICCAT Recommendations for Swordfish and Bluefin Tuna

Spanish progress in recent years in the context of ICCAT compliance may be evaluated from official government reports. **Tables 1, 2, 3 and 4** show Spain's levels of compliance with ICCAT Recommendations in force for Spain, 1993-97, for catches of Swordfish from the North and South Atlantic.

As can be seen from **Tables 1 and 2**, the quota for Swordfish imposed by ICCAT for Spain has been surpassed every year since 1995. It should be noted, nevertheless, that catches for Spain have decreased, more or less progressively, from 1995 to 1997, alongside the decreasing quotas, indeed an official report of November 1998 from ICCAT's Standing Committee on Research and Statistics (SCRS) states that Spain has reduced its catch of North Atlantic Swordfish by 54% since 1989, presumably in response to ICCAT Recommendations.

The figures in **Tables 3 and 4** show a marked difference between compliance with ICCAT minimum size requirements between the North and South Atlantic catches of Swordfish. For the most part, sizes of Swordfish in Spanish catches from the South Atlantic fell within the permitted size restrictions, given that a 15% tolerance limit applies to allow for undersized fish caught accidentally (see section on regulatory framework). Discrepancies during the years of non-compliance (1995 and 1997) were minimal. On the other hand, the proportion of undersized Swordfish in catches from the North Atlantic during the same years consistently and significantly exceeded the 15% tolerance limit.

Although there is no ICCAT minimum size in force for Swordfish from the Mediterranean, a recent report stated that the percentages of Swordfish under the minimum size required by European Union (EU) legislation (120 cm lower jaw-fork length (LJFL)) caught by longline in the Mediterranean by Spain were 83% in 1992, 81% in 1993 and 82% in 1994 (Anon., 1995a) (see **Figure 12**).

**Table 1**

#### Recorded Spanish compliance with ICCAT Swordfish catch quotas for the North Atlantic

Year	Catch (t)	Quota	Compliance
1993	6598	No quota in place	n/a
1994	6185	No quota in place	n/a
1995	6953	6230 t	723+ (+11.6%)
1996	5547	5500 t	47+ (+0.8%)
1997	5137	4661.3 t	475.7+ (+10.2%)

*Sources:* ICCAT SCRS reports.

Table 2

Recorded Spanish compliance with Swordfish ICCAT catch quotas for the South Atlantic

	Catch (t)	Quota	Compliance
1993	6974	No quota in place	n/a
1994	7937	No quota in place	n/a
1995	11 290	No catch in excess of 1993 or 1994 level (reference catch level 7937 t)	3353+ (+42.2%)
1996	9622	No catch in excess of 1993 or 1994 level (reference catch level 7937 t)	1685+ (+21.2%)
1997	8461	No catch in excess of 1993 or 1994 level (reference catch level 7937 t)	524+ (+6.6%)

Source: ICCAT SCRS reports.

Table 3

Recorded Spanish compliance with the ICCAT minimum size limit for Swordfish in the North Atlantic

	Total catch for Spain (number of fish)	Number of fish < 25 kg/125 cm LJFL	% of fish < 25 kg/125 cm LJFL
1993	153 338	1214	26.9
1994	1 488 634	5161	30.3
1995	172 055	8639	28.3
1996	148 128	6592	31.5
1997	152 675	8479	44.9

Source: ICCAT SCRS reports.

Table 4

Recorded Spanish compliance with the ICCAT minimum size limit for Swordfish in the South Atlantic

	Total catch for Spain (number of fish)	Number of fish < 25 kg/125 cm LJFL	% of fish < 25 kg/125 cm LJFL
1993	125 449	18 224	14.5
1994	149 864	20 552	13.7
1995	231 752	37 558	16.2
1996	181 518	21 465	11.8
1997	161 308	25 360	15.7

Source: ICCAT SCRS reports.

### Bluefin Tuna

Figures in **Tables 5, 6** and **7** are from official government reports of catches of Bluefin Tuna in Spain from the “East Atlantic” (a management area which includes the Mediterranean), for the years 1993-97. They may be used to estimate Spain's levels of compliance with ICCAT Recommendations in force during this period.

**Table 5** shows the poor compliance on the part of Spain with ICCAT catch quotas in force for Bluefin Tuna in the East Atlantic. Catch levels hardly diminished at all between 1995 and 1997, while the quota itself was reduced, leading to inevitable non-compliance. **Tables 6** and **7** show varying levels of compliance with ICCAT Recommendations for a minimum size of Bluefin Tuna. Catches from the Mediterranean have shown increased compliance with these requirements in 1996 and 1997, but the proportion of under-sized tuna from the remainder of the East Atlantic management area has been well over the 15% tolerance limit allowed since 1994 (see regulation section).

**Table 5**

**Recorded Spanish compliance with ICCAT catch quotas for Bluefin Tuna for the East Atlantic (including the Mediterranean)**

	Catch level (t)	Quota	Compliance
1993	7096	No quota in place	n/a
1994	5040	No quota in place	n/a
1995	8426	No catch in excess of 1993 or 1994 level (ref. catch level 7096 t)	+1330 (+18.7%)
1996	8393	25% reduction in catch level from 1993 or 1994 level by 1998 (i.e. 7096 – 25% = 5322 t)	+3071 (+57.7%)
1997	8047	25% reduction in catch level from 1993 or 1994 level by 1998 (i.e. 7096 – 25% = 5322 t)	+2725 (+51.2%)

Source: ICCAT SCRS reports.

**Table 6**

**Recorded Spanish compliance with the ICCAT minimum size limit for Bluefin Tuna from the eastern Atlantic (excluding the Mediterranean)**

	Total catch for Spain (number of fish)	Number of fish < 6.4 kg	% of fish < 6.4 kg
1993	304 195	43 770	14.39
1994	155 561	25 538	16.42
1995	302 155	165 706	54.84
1996	430 151	248 662	57.81
1997	269 948	120 844	44.77

Source: ICCAT SCRS reports.

Table 7

Recorded Spanish compliance with ICCAT minimum size limit for Bluefin Tuna in the Mediterranean

	Total catch for Spain (number of fish)	Number of fish < 6.4 kg	% of fish < 6.4 kg
1993	143 310	56 622	39.51
1994	26 354	91	0.35
1995	158 770	54 729	34.47
1996	90 190	6995	7.76
1997	68 452	8135	11.88

Source: ICCAT SCRS reports.

### Spain's role as a Swordfish and Bluefin Tuna fishing nation in the context of ICCAT

#### Swordfish

The Spanish longline fleet reports landing more Swordfish than any other Party to ICCAT. In 1997, the main countries involved in the Atlantic Swordfish fishery were Spain (45% share with 13 598 t) (see **Table 8**), the USA (11% with 2988 t) and Japan (9% with 1437 t) while in the Mediterranean the shares were Italy (53.4% with 6401 t), Morocco (33% with 4900 t) and Spain (9% with 1264 t) in the Mediterranean (see **Table 9**). The Spanish fleet provides about ESP17 billion (USD11.88 million) from Swordfish sales at auction and about 35 000 jobs. In both the North and South Atlantic, Spanish catch remains high but a slow, yet constant, decrease in catch in the North Atlantic since 1987 and in the South Atlantic since 1995 is perceptible (see **Tables 1** and **2**). Meanwhile, Japanese catches in the North Atlantic are slowly increasing, Brazilian catches in the South Atlantic doubled in 1997, and Morocco's effort in the Mediterranean rose by 44% in 1997 (Anon., 1998).

Of the total of 36 378 t of Swordfish landed and/or imported into Spain in 1997, only 38% (13 896 t) were consumed in Spain (see **Annex 5**). According to trade data reported by EU Member States (Eurostat), the major destination for exports of Spanish Swordfish products in 1998 was Italy, recipient of a total of 8376 t (85%) of such Spanish exports. A large part of these exports may be met from imports, as well as from Spanish catch. In 1998, Spain imported a total of 8927 t of Swordfish products, the main suppliers being Morocco (1052 t of fresh/chilled product) and Singapore (1068 t of frozen product, excluding fillets). Based on the 1998 SCRS report, Morocco's catch of Swordfish from 1996 to 1997 increased by 62%, from 2734 to 4900 t, while the Spanish catch decreased by nine per cent, from 16 355 to 14 862 t (**Tables 8** and **9**). It may be possible that the Spanish fish processing industry is compensating for the decrease in Spanish catch with imported catch from neighbouring and overseas countries.

Table 8

Table to show Spanish proportion of total Atlantic Swordfish catch, 1993-97

	Total catch (t)	Spanish catch (t)	Spanish catch as % of total
1993	32 972	13 572	41.2
1994	32 912	14 122	42.9
1995	37 330	18 243	48.9
1996	32 677	15 169	46.4
1997	30 054	13 598	45.2

Sources: FAO fisheries statistics (Fishstat), 1999 and ICCAT SCRS reports.

Table 9

Table to show Spanish proportion of total Mediterranean Swordfish catch, 1993-97

	Total catch (t)	Spanish catch (t)	Spanish catch as % of total
1993	13 256	1358	10.2
1994	15 298	1503	9.8
1995	12 876	1379	10.7
1996	12 074	1186	9.8
1997	14 670	1264	8.6

Source: ICCAT SCRS reports.

### Bluefin Tuna

In 1997, the leaders in Bluefin Tuna fishery in the East Atlantic management area were Italy (24% with 9548 t), France (21% with 8470 t) and Spain (20% with 8047 t) (see **Figure 4** and **Table 10**) (Anon., 1998). Although the total catches decreased in 1997, most countries involved in Bluefin Tuna fishing in the region have continuously increased their annual catch since 1991 (see **Figure 2**) (Anon., 1998). In 1998, Spanish records of landings of tuna and tuna-like species were among the highest for countries fishing in the North Atlantic and Mediterranean.

Of all Bluefin Tuna landed and/or imported in Spain in 1997, only 35% was consumed in Spain (see **Annex 5**). The remainder constitutes a valuable export trade and one which is acknowledged to be a main cause behind recent increases in Bluefin Tuna catch in the Atlantic and Mediterranean (**Figure 2**). In 1998, this trade was worth USD70 million for fresh/chilled Bluefin Tuna alone. In that year, 97% (3196 t) of Spain's exports of this product were to Japan, at a total value of USD62.2 million. Fresh or chilled Bluefin Tuna exported to Japan in this year was the most valuable commodity exported by the Spanish fisheries industry and the unit value of Spanish exports of this commodity has increased by 50% from 1994 to 1998 (from USD9/kg to USD14/kg), according to Eurostat data. The difference between the value of Spanish imports of fresh or chilled Bluefin Tuna (commodity code 0302 39 91) in 1998 (USD3.2/kg) and the value of

Table 10

Table to show Spanish proportion of total Bluefin Tuna catch, 1993-97, from the East Atlantic (including the Mediterranean)

	Total catch (t)	Spanish catch (t)	Spanish catch as % of total
1993	33 363	7096	21.2
1994	42 477	5040	11.8
1995	44 050	8426	19.1
1996	46 033	8393	18.2
1997	41 255	8047	19.5

Source: ICCAT SCRS reports.

Spanish exports to Japan of the same in that year (USD19.5/kg) is noteworthy (**Annex 5**). While Japan was the main destination for Spanish Bluefin Tuna in 1998, France was the main supplier to Spain (**Annex 5**).

#### *Summary of Spain's role as a Swordfish and Bluefin Tuna fishing nation in the context of ICCAT*

Spain's role as an important player in Swordfish and bluefin fisheries makes it an important constituent of ICCAT, whose compliance or lack of compliance with the regulations of the Convention is accordingly significant. Nevertheless, while Spain has regularly surpassed catch limits and landed and sold undersized fish, it is not alone as a major fisher of Swordfish and Bluefin Tuna to do so. Reported catches of Bluefin Tuna for France in the East Atlantic exceeded the agreed quota by approximately 50% in 1996 and 1997 and in 1997, Italy, Japan and Morocco exceeded their quotas for Bluefin Tuna for the area by 90%, 30% and 91%, respectively, according to ICCAT records. (It should be noted that Japan has a five-year carry-over provision). Similarly, the Japanese 1997 Swordfish catch in the Mediterranean (1437 t) exceeded the agreed quota by 103%; the USA exceeded the 8% tolerance limit permitted for undersized (<30 kg) Swordfish from the West Atlantic in both 1996 and 1997; and a recent paper reports that 60% of 750 Swordfish from an Italian surface longline fishery were shorter than 120 cm (Anon., 1998; Orsi Relino *et al*, 1999).

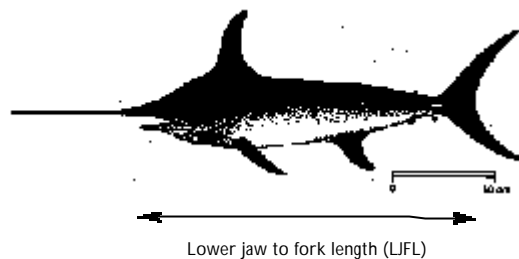
### **Biology and distribution of Atlantic and Mediterranean populations of Swordfish and Bluefin Tuna**

#### ***Swordfish***

The Atlantic Swordfish (*Xiphias gladius*) is a large fish. It normally ranges between 100 cm (or about 10 kg) at one year of age and 220 cm (or about 95 kg) at age nine. These lengths correspond to the distance between the lower jaw and the tail fork (LJFL) - see **Figure 5**, Anon. 1995). Swordfish reach a maximum size of about 450 cm (Fischer *et al.*, 1987). Young fish grow rapidly, reaching about 140 cm (or 30 kg) by age three (Anon., 1998), but grow slowly thereafter. Female Swordfish grow faster than males and reach a larger maximum size. Individuals are difficult to age, but females are considered to mature by age five.

Figure 5

**Swordfish *Xiphias gladius***



Source: Fischer, *et al.*, 1987.

Figure 6

**Map showing distribution of Swordfish in the Atlantic Ocean and adjacent seas**



Source: Miyake, 1990.

Swordfish are widely distributed in the Atlantic (**Figure 6**), from Canada and Iceland to Argentina and South Africa (about 45°S). From east to west, the species occurs in the Gulf of Mexico and in the Mediterranean and Black Seas (Anon., 1998). Based on findings from tagging experiments, genetic analyses and fisheries catches, it is arguable that two stocks may be distinguished: a Mediterranean stock and a North Atlantic stock (Anon., 1995b).

Adults spawn in warm tropical and sub-tropical waters throughout the year, but Swordfish are also found in colder northern waters during summer months. Unlike the case with Bluefin Tuna, there seems to be an extremely low exchange rate of Swordfish between the Atlantic Ocean and the Mediterranean Sea.

Swordfish catch a variety of prey, including pelagic, deep-water- and ground-fish and invertebrates. They are usually caught by pelagic longliners operating at night when the fish feed in surface waters (Anon., 1998).

**Bluefin Tuna**

Bluefin Tuna (*Thunnus thynnus*) can grow to over 300 cm (measured jaw to tail fork or “fork length” = FL) and reach 650 kg (see **Figure 7**; Fischer *et al.*, 1987; Anon., 1998). Reliable reports of the oldest age reached by individuals of the species refer to fish of 20 years, although it is believed that they may live even longer. Bluefin Tuna in the west Atlantic generally reach a larger maximum size and mature at an older age (about age eight) than specimens in the east Atlantic (i.e. age four to five) (Anon., 1998).

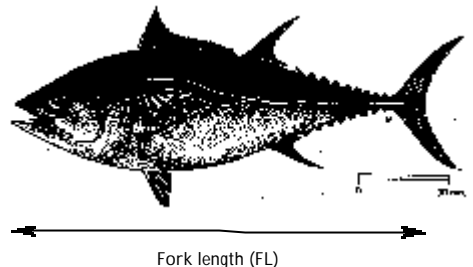
In western Atlantic waters, adults are thought to spawn from mid-April to June in the Gulf of Mexico and in the Straits of Florida. In the eastern Atlantic, spawning is generally between late May and July, depending on the spawning area - most spawning occurs in the Mediterranean Sea, with highest concentrations around the Balearic Islands, Tyrrhenian Sea and central Mediterranean, where the average surface temperature is about 24°C. Distribution expands with the age of the fish, large individuals being adapted for migration to colder waters.

Bluefin Tuna are opportunistic feeders, with fish and squid common in their diet.

The Atlantic distribution of this species is not as wide as that of Swordfish (**Figure 8**; Anon., 1998). In the eastern Atlantic it occurs from the northern coast of the Russian Federation, Norway, the Lofoten

Figure 7

Bluefin Tuna *Thunnus thynnus*

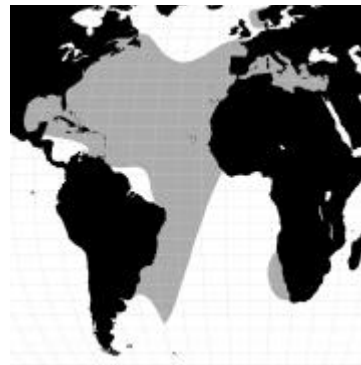


Source: Fischer, *et al.*, 1987.

Islands and Iceland to the north-west coast of Africa (Sierra Leone) and a small population inhabits the continental shelf area off South Africa. In the west Atlantic it is found from Labrador and Newfoundland (Canada) to Brazilian waters.

Figure 8

Map showing distribution of Bluefin Tuna in the Atlantic Ocean and adjacent seas



Source: Miyake, 1990.

## METHODOLOGY

In June 1998, work began on researching the regulatory framework governing catches and landings of Swordfish and Bluefin Tuna in Spain by consulting ICCAT reports, European Commission reports, European Council Regulations and Spanish legislation. Also at this time, a methodology for monitoring landing sites was established at a workshop comprising staff from TRAFFIC and WWF. A preliminary analysis of available literature was undertaken to determine the most representative fishing gear, the best sampling season and most appropriate sampling sites. The focus of the field research undertaken was to examine the proportion of undersized Swordfish and Bluefin Tuna, measured against ICCAT Recommendations.

Swordfish landings from longliners were examined for this study. Longliners are considered to be representative of the entire Spanish Swordfish fisheries, because almost 100% of Swordfish are caught by longliners, both in the Atlantic and in the Mediterranean. Landings of Bluefin Tuna were examined from baitboats and longliners. In the Mediterranean, a significant proportion of Bluefin Tuna (e.g. 64% and 53% in 1996 and 1997, respectively) is caught by six purse seiners in the Mediterranean (Anon., 1998; see **Figure 12**). Nevertheless, about 40% of the Spanish bluefin catch is made using longlines and in the East Atlantic around half the bluefin catch is made by bait boats and the survey sample is considered to be representative for these gear types.

A sampling season from mid-June to mid-September was identified as the optimum time for observing landings of the relevant species for this study. The Spanish Mediterranean Swordfish catch of July, August and September in 1992-94 was found to have represented about 50% of Spain's total annual catch (Anon., 1995a). According to the same source, the percentage of undersized Swordfish caught from 1 July to 30 September in 1992, 1993 and 1994 was similar to the percentage of undersized Swordfish caught during the rest of the year, i.e. between 80 and 83% in the Mediterranean (Anon., 1995a).

In 1992, 1993 and 1994, the Mediterranean Bluefin Tuna catch of July, August and September represented on average 35% of the total annual catch (Anon., 1995a). In 1994, the proportion of Bluefin Tuna caught

under 6.4 kg (by Mediterranean purse seiners) was much higher in the months of July, August and September than in other months. Fifteen per cent of bluefin were recorded underweight in these summer months of 1994, compared to 0% of catches recorded underweight in April, May, June and October of the same year (Anon., 1995a).

Sampling was carried out by four observers from mid-June to mid-September, 1998. Sampling sites were selected after analysing landing reports in Spain and after local reports. The sites monitored were as shown in **Table 11** and **Figure 9**.

Researchers arrived at landing sites one hour before auctions were due to take place in order to monitor landings. At each site, the nature and extent of landings and sale of Swordfish and Bluefin Tuna were monitored and recorded on a survey sheet designed for the project (**Figure 10**). The species of fish, the name and flag of the fishing vessels, gear employed, fishing area, total number of fish landed, number of undersized fish, form of fish landed and sold, prices, destination of the landings and by-catch species were all recorded, where possible. Size compliance was measured by weight (kg). Information was subsequently entered into a database to facilitate accurate comparison and analysis of findings.

Fishermen may land the whole catch or just a portion of it. For the purpose of this study, researchers considered the landed fish to be the "sample". The number of undersized individuals was recorded as a percentage of the total sample, so that illegal landings could be estimated and resultant calculations used to verify compliance with ICCAT regulations.

**Table 11**

**Landing sites in Spain monitored in 1998**

<b>Landing site</b>	<b>Species sampled</b>	<b>Monitoring schedule</b>
Vigo	Swordfish	13 July-27 September. Monday-Friday, 6-10 a.m.
Algeciras	Swordfish Bluefin Tuna	6 July-1 October. Monday-Thursday, 5-9 a.m.
Cartagena	Swordfish Bluefin Tuna	10 August-25 September. Tuesdays, Thursdays and Fridays, 3-5 a.m.
Garrucha	Swordfish Bluefin Tuna	13 July-25 September. Monday-Friday in July; Wednesdays or Thursdays in August and September, 5-7 p.m.
Aguilas	Swordfish Bluefin Tuna	13 July-25 September. Monday-Friday in July; . Wednesdays or Thursday in August and September, 5-7 p.m
Fuenterrabia	Bluefin Tuna	10-30 August. Monday-Friday, 6:30-8:30 a.m.
Alicante	Swordfish Bluefin Tuna	13 July-7 August. Tuesday, Thursday and Friday, 2-4 a.m.

*Source: Güemes et al., 1998*

Figure 9

Map of Spain showing sampling sites visited during summer 1998



Source: Güemes *et al.*, 1998

Besides conducting visual surveys at the landing sites, researchers also interviewed fishermen, government observers and others at the landing sites, to obtain information on fishing areas, prices, markets, trade routes and other aspects of the trade. During the auction, researchers recorded prices and destinations for fish sold. Information on fishing zones and fishing effort were obtained, if possible, from captains of vessels.

A number of fresh fish markets in Spain, including the second-largest in the world, *Mercamadrid* in Madrid, were visited to gather additional information on prices, markets and trade routes for the relevant species.

The exchange rate used in this report is ESP143 = USD1 (September 1998). One tonne (t) as used in this report is one metric tonne = 1000 kg.

Unless otherwise stated, reports and findings from the site surveys in the Results section following are from Güemes *et al.* (1998).

Blank record sheet, as used during site surveys in Spain, July-September, 1998

[illegible]

Source: Güemes *et al.*, 1998

## RESULTS

## Regulatory framework for Swordfish and Bluefin Tuna fisheries in Spain

At a supra-national level, the recommendations of ICCAT and the General Fisheries Commission for the Mediterranean (GFCM) and the EU Regulations pertaining to Bluefin Tuna and Swordfish apply to Spanish fisheries and landings of these fish. (Spain has been a Member State of the European Community since 1986 and is a Contracting Party to ICCAT and GFCM.) Spain also has its own national fisheries legislation.

*International Commission for the Conservation of Atlantic Tunas*

### History and organizational structure

The International Convention for the Conservation of Atlantic Tunas was signed in Rio de Janeiro, Brazil, in 1966. The objective of the Convention, according to its own preambular text, is to maintain populations of tuna and tuna-like species in the Atlantic Ocean “at levels which will permit the maximum sustainable catch for food and other purposes”. The body empowered to carry out the objectives of the Convention and its decision-making body is the International Commission for the Conservation of Atlantic Tunas (ICCAT). ICCAT held its first meeting in December 1969 and was formally established in 1971.

According to Article I of the Convention text, its area of “jurisdiction” includes “all waters of the Atlantic Ocean, including the adjacent seas”.

Regular Commission meetings are held once every two years and special meetings may also be called at the request of a majority of the Convention’s Contracting Parties or at the request of the Council. However, more recently, owing to increased membership and the need to take important decisions regularly, the Commission has decided to hold special meetings in alternate years, thus allowing the full Commission to meet annually. Management Recommendations are adopted in the course of these meetings in accordance with the state of the stocks of the various species. Each Recommendation thus made becomes effective and legally binding upon each Contracting Party six months later, unless any objection is presented by a Contracting Party to the Commission within six months. The results of these meetings are published in a *Report for the Biennial Period*, which includes the proceedings of Commission meetings, reports of the Standing Committee on Research and Statistics (SCRS) and the Contracting Parties’ reports of their relevant fisheries activities. The SCRS, which is made up of scientists representing the Contracting Parties, conducts scientific assessments of the 30 species relevant to the Convention and advises the Commission on specific conservation and management measures in the light of the results. It is also the role of the SCRS to assure that, at all times, ICCAT has the most complete and current statistics concerning fishing activities in the Convention area as well as biological information on the stocks fished. Besides the SCRS, the Compliance Committee and the Permanent Working Group on ICCAT Statistics and Conservation Measures (PWG) are among the “implementing bodies” of ICCAT that may propose Recommendations for action by Contracting Parties, on the basis of scientific research.

Four panels within ICCAT deal with the following species:

**Panel 1:** Tropical Tunas (Yellowfin Tuna *Thunnus albacares*, Skipjack *Katsuwonus pelamis*, Bigeye *Thunnus obesus*)

**Panel 2:** North Temperate Tunas (Albacore *Thunnus alalunga*, Bluefin Tuna *Thunnus thynnus*)

**Panel 3:** South Temperate Tunas (Southern Bluefin Tuna *Thunnus maccoyii*, Albacore *Thunnus alalunga*)

**Panel 4:** Others (Swordfish *Xiphias gladius*, billfishes *Istiophoridae* and small tunas)

Each panel is responsible for monitoring the species under its purview and collecting scientific and other information relative to the species. Each panel may also propose recommendations to the Commission on the basis of scientific investigations aimed at the rational exploitation of each panels’ species.

ICCAT Recommendations may take the form of a total allowable catch (TAC) for certain stocks in defined areas. TACs are divided into country-specific quotas that must not be exceeded. In addition, restrictions are applied in the form of minimum sizes of fish allowed for capture and landing, closed seasons, by-catch and mortality limits and gear restrictions. In accordance with Article IX of the text of the Convention, Contracting Parties “agree to take all action necessary to ensure [its] enforcement” by fully complying with the management Recommendations made by the Commission, by implementing the Recommendations into their national legislation. An ICCAT Compliance Committee reviews the status of Contracting Parties’ compliance with recommendations in force, considers any infractions and seeks effective ways to enforce regulations.

#### *Management areas*

These have been designated by ICCAT for each species under its purview. Management areas for the Swordfish fishery are both the North and South Atlantic (separated at 5°N) while the management areas

for the Bluefin Tuna fishery are the “West Atlantic” and the “East Atlantic”. The latter area includes the Mediterranean Sea, up to a boundary at 45°W (“East Atlantic”). This boundary was designated by the Commission in 1982 for separating eastern and western management units.

#### *Membership*

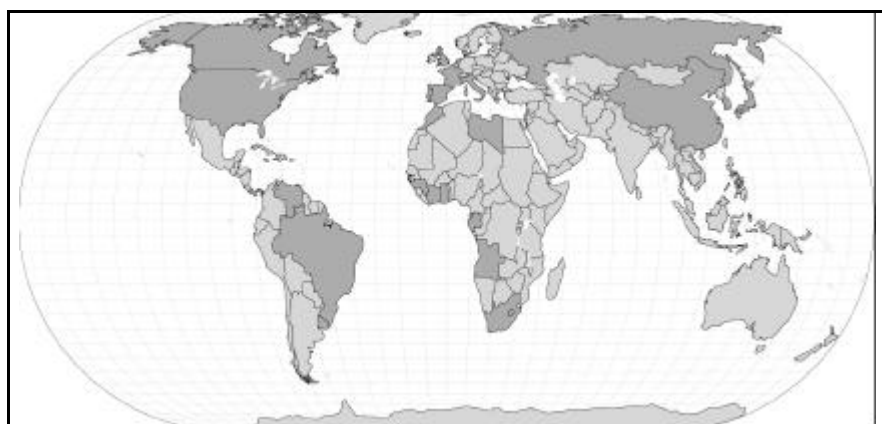
Any government that is a member of the United Nations may join the Convention. For membership to become effective, the government of a prospective member must deposit an instrument of adherence with the Director General of the Food Agriculture Organization of the United Nations (FAO).

There are currently 27 Contracting Parties of the Convention (**Figure 11**): Angola, Brazil, Canada, Cape Verde, China (People’s Republic), Equatorial Guinea, France, Gabon, Ghana, Guinea (Republic of), Italy, Ivory Coast, Japan, South Korea, Libya, Morocco, Panama, Portugal, Russian Federation, Sao Tome and Principe, South Africa, Spain, Trinidad and Tobago, UK, USA, Uruguay and Venezuela (F. Garcia, ICCAT Secretariat, *in litt.*, August 1999).

Spain joined the Convention in 1969 and was the seventh country to join. The membership of Spain coincided with the entry into force of the Convention, three years after its initial signature. The European Community deposited an instrument of adherence to the Commission on November 1997 with the effect that any Member State of the EU already a Party to ICCAT was to cease membership in its own right (Paragraph 6 of Article XIV of the Convention text). France and the UK have informed the Commission that they intend to maintain their membership of ICCAT in respect of their overseas territories not included in the Treaty of Rome.

**Figure 11**

**World map to show ICCAT Contracting Parties**



 ICCAT Contracting Party

*Source:* ICCAT Secretariat

*Principal ICCAT Recommendations relevant to Swordfish and Bluefin Tuna catches and landings in Spain (August 1999)*

**Swordfish minimum size limits:** In 1991, a minimum size limit of 25 kg (corresponding to an official ICCAT conversion to 125 cm, LJFL) was recommended for the entire Atlantic for the first time. There is an allowance for boats taking fish smaller than this caught accidentally, providing that this incidental catch does “not exceed 15% of the number of fish per landing of the total swordfish catch of said boats”.

There is no ICCAT Recommendation for a minimum size for Mediterranean Swordfish (Miyake, pers. comm., 1998; Anon., 1998), but the minimum size of 120 cm LJFL specified by EU Regulations is in force in Mediterranean Community Member States.

**Swordfish catch limits:** Quotas for Swordfish catches were introduced by ICCAT in 1995 and are shown in **Table 12**.

**Table 12**

**Spanish quotas in tonnes (t) for Swordfish for the Atlantic Ocean, as determined by ICCAT**

<b>North Atlantic</b>	
1995	6230
1996	5500
1997	4661.25
1998	4537.5
1999	4413.75
<b>South Atlantic</b>	
1995	not above 1993 or 1994 catch limit, whichever was the greater
1996	not above 1993 or 1994 catch limit, whichever was the greater
1997	not above 1993 or 1994 catch limit, whichever was the greater
1998	5848
1999	5848
2000	5848

*Source:* ICCAT Recommendations.

For the years 1997-99, Spain's share of the TAC for the North Atlantic has been an average of 41.25%, while its share of the TAC for the South Atlantic has been set at 40% (5848 of 14 620 t) for the years 1998-2000.

**Bluefin Tuna minimum size limits:** A minimum size of 6.4 kg for Bluefin Tuna was adopted by ICCAT for the entire Atlantic, including the Mediterranean, as early as 1975. There is an allowance for boats taking fish smaller than this, caught accidentally, providing that this incidental catch does “not exceed 15% of the number of fish per landing of the total bluefin catch of said boats or its equivalent in percentage by weight”. A Recommendation of 1992 pertaining to the “West Atlantic” is in force, requiring that no more

than 8% of the fish in the total catch should weigh less than 30 kg (corresponding to 115 cm). Additionally, catches of age 0 fish weighing less than 1.8 kg have been prohibited since October 1995: since June 1999, catches of age 0 fish weighing less than 3.2 kg have been prohibited. A Recommendation to prevent the retaining on board, landing and sale of age 0 age fish entered into force in 1997.

**Bluefin Tuna catch limits:** Catch limits for Bluefin Tuna were introduced for the first time in 1995 in the eastern Atlantic and Mediterranean. Contracting Parties were obliged to take the necessary measures to prevent any catch in 1995 that exceeded that of 1993 or 1994 (whichever was the higher). In 1995, a Recommendation came into force requiring Contracting Parties to reduce their catches by 25% from the 1993/1994 level, to be accomplished by 1998. Further, effective from 21 June 1999, a Recommendation applied annual TACs of 32 000 t and 29 500 t for 1999 and 2000, respectively, for the eastern Atlantic and Mediterranean, combined: in the 1998 SCRS report, the stock assessment of Bluefin Tuna in the eastern Atlantic and the Mediterranean indicated that an annual catch level equal to, or higher than, 33 000 t would not be sustainable. The Recommendation contains a table of allocation of the set TACs among countries fishing in the area. This same Recommendation specifies that deductions from the 1999 catch quota should, where warranted, be made in accordance with the conditions set out in the "Recommendation regarding compliance in the Bluefin Tuna fishery", which entered into force on 4 August 1997 - see **Annex 2**.

For detailed ICCAT Recommendations and Resolutions for Swordfish and Bluefin Tuna, see **Annexes 1 and 2**.

### ***The European Community Common Fisheries Policy***

As the European Community is itself a Contracting Party to ICCAT, its legislation is an important tool for applying ICCAT Recommendations throughout Member States.

The Common Fisheries Policy (CFP) applies to all EU Member States and EU fisheries legislation is generally expressed as Council Regulations, following proposals from the European Commission and adoption by the European Council of Ministers. These Regulations are directly applicable in their entirety in all Member States and do not require confirmation by way of national legislation. However, this is not sufficient to give the measures in question full enforceability and it is primarily the responsibility of Member States to ensure compliance with all the relevant regulations and to adopt a system of enforcement and monitoring, which is subject to checks by the Commission. Penalties provided for in European Council Regulations range from fines to confiscation of gear or catches and may even include temporary or permanent withdrawal of fishing licences. EU inspectors monitoring national inspection programmes are in operation, but lack the legal authority to enforce legislation and their oversight is therefore relatively impotent.

Conservation and management measures formulated within the CFP include TACs for certain fishing areas and/or fish, prohibitions and restrictions on gear types allowed for selected areas and/or fish, limits on by-catch, minimum mesh sizes, minimum landing sizes and time-area closures. TACs are determined following annual stock assessments by fisheries biologists within the International Council for the Exploration of the Sea or the EU's Scientific Technical and Economic Commission for Fisheries, or both. TACs are divided into country-specific quotas and once a TAC limit has been reached, the fishery in question must be closed. Catches of species subject to TACs must be recorded in logbooks and responsibility for inspection of fishing vessels, inspection of landing activities, selling, transporting and storing fish and recording landings and sales lies with the authorities in each EU Member State. In turn, EU inspectors verify the implementation of such control programmes by the Member States.

*Principal European Council Regulations relevant to Swordfish and Bluefin Tuna catches and landings in Spain (August 1999).*

**Swordfish minimum size limits:** A minimum size of 120 cm (LJFL) was established for Swordfish in the Mediterranean in June 1994 (Article 8, *Council Regulation (EC) No. 1626/94*).

**Swordfish catch limits:** The Spanish quotas for the North Atlantic have been 4537.5 t for 1998 (*Council Regulation (EC) No. 65/98*) and 4413.75 t for 1999 (*Council Regulation (EC) No. 49/99*). For the South Atlantic, a quota of 5848 t was set for 1998 (*Council Regulation (EC) No. 1283/98*) and 1999 (*Council Regulation (EC) No. 49/99*).

**Bluefin Tuna minimum size limits:** Article 8 of *Council Regulation (EC) No. 1626/94* set a minimum weight of 6.4 kg or length of 70 cm (FL) for Bluefin Tuna caught from the Mediterranean. A 15% tolerance limit per catch for undersized Bluefin Tuna caught accidentally was introduced for the Mediterranean by *Council Regulation (EC) No. 782/98*. *Council Regulation (EC) No. 49/99* prohibits the catch of Bluefin Tuna weighing less than 3.2 kg.

**Bluefin Tuna catch limits:** In 1998, Spanish quotas were set at 3809 t for the eastern Atlantic and 2033 t for the Mediterranean (*Council Regulation (EC) No. 65/98*). In 1999, the Spanish quota set by Community regulation is 5555 t, for the Atlantic and the Mediterranean (*Council Regulation (EC) No. 49/99*).

(A detailed list of European Council Regulations for Swordfish and Bluefin Tuna may be found in **Annex 3**.)

#### ***GFCM/ICCAT Joint Working Group on Large Pelagic Species in the Mediterranean***

The General Fisheries Commission for the Mediterranean (GFCM) was formed in 1949 as an international agreement under the Food and Agriculture Organization of the United Nations (FAO). Its main purposes are to promote the development, conservation, rational management and best use of living marine resources, to keep under review the state of these resources and to formulate, and recommend appropriate conservation measures.

The geographical scope of the GFCM is the Mediterranean and the Black Sea and connecting waters and current members are: Albania, Algeria, Bulgaria, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Japan, Lebanon, Libya, Malta, Monaco, Morocco, Romania, Spain, Syria, Tunisia, Turkey and Yugoslavia. The European Community is also expected to become a full member of the GFCM in the immediate future (D. Karavellas, former Mediterranean fisheries co-ordinator, WWF Endangered Seas Campaign, pers. comm., 1998).

GFCM issues resolutions to achieve its objectives, but these resolutions are not binding on its members. The existence of GFCM is particularly relevant in the management of tuna and tuna-like species in the Mediterranean as the majority of coastal states surrounding the Sea are not Contracting Parties to ICCAT yet are members of GFCM. In an attempt to profit from this, ICCAT and GFCM have collaborated since 1994 in the *ad hoc* GFCM/ICCAT Joint Working Group on Stocks of Large Pelagic Species in the Mediterranean Sea. By means of this partnership ICCAT is supplied with the scientific information it needs to propose effective recommendations for fish management and conservation in the Mediterranean. The GFCM has adopted several management measures for Bluefin Tuna established by ICCAT, including a minimum size limit of 6.4 kg with a 15% tolerance limit per catch, the ban on catching 0 age tuna <1.8 kg and the requirement, effective 1996, to reduce catches by 25% of 1993 or 1994 levels.

### ***Spanish legislation implementing ICCAT Recommendations and EU Regulations for Swordfish and Bluefin Tuna fisheries***

#### *Spanish fisheries policy and legislation*

The Spanish Constitution contains a very complex system of division of powers between central Government and the Autonomous Regions (*Comunidades Autónomas*) (namely, the Basque Country, Catalonia, Galicia, Asturias, Cantabria, Andalucia, Murcia, the Community of Valencia, the Canary Islands and Balearic Islands). The coastal Autonomous Regions have varying levels of autonomy and regulatory powers with regards to fisheries, depending on their particular Statutes of Autonomy (*Estatutos de Autonomía*) and agreements signed with central Government. In general, central Government has exclusive authority over the aspects of Swordfish and Bluefin Tuna fisheries relevant to this study. A *Fisheries Sanctions Act* has recently been passed that clarifies the distribution of powers between central and autonomous authorities with regard to control and application of penalties for non-compliance with fisheries regulations.

On the whole, fisheries legislation in Spain is fragmented and composed of many regulations of low rank in the legislative hierarchy, often Ministerial Orders (*Ordenes Ministeriales*), which are approved only by the Ministry of Agriculture, of which the Fisheries Administration is part. These Orders are in contrast to regulations known as Royal Decrees (*Reales Decretos*), approved by the Government as a whole. There is no parliamentary statute laying down the basic legal framework for the different elements of the fisheries industry. Such a statute would bring Parliamentary endorsement and possibly greater legal certainty to fisheries legislation.

#### *Summary of Spanish legislation on relevant minimum size and catch limits*

**Swordfish minimum size limits:** A Ministerial Order of 8 January 1993 adopts the ICCAT minimum size limit for the Atlantic (25 kg), with a 15% tolerance limit for accidentally caught fish, such as ICCAT has. A Royal Decree of 7 April 1995 adopts the EU-stipulated minimum size of 120 cm for Swordfish from the Mediterranean.

**Swordfish catch limits:** A Ministerial Order of 17 February 1998 endorses the provisions of *Council Regulation (EC) 65/98*, which include a 1998 Spanish quota of 4537.5 t for Swordfish from the North Atlantic. Such quotas are implemented in Spain by way of an “Annual Plan”, according to which fishing days may be limited or individual quotas imposed on fishermen.

**Bluefin Tuna minimum size limits:** A Ministerial Order of 3 March 1975 prohibits any catching of Bluefin Tuna weighing less than 6.4 kg, with a 15% tolerance limit, in ICCAT areas, mirroring ICCAT’s Recommendation. Further, a Royal Decree of 7 April 1995 adopts a minimum size for Bluefin Tuna of 6.4 kg in the Cantabrian, North-West and Cadiz Gulf fishing areas and in the Mediterranean and Canary Islands fishing areas.

**Bluefin Tuna catch limits:** The 1995 ICCAT Recommendation calling for a 25% reduction in catches from the 1993 or 1994 level was implemented in Spain by a Ministerial Order of 17 February 1998. This Order also endorses the TACs and country-specific quotas in *Council Regulation (EC) 65/98*, according to which, 1998 Spanish quotas for Bluefin Tuna of 3809 t from the eastern Atlantic and of 2033 t from the Mediterranean are specified. The quotas are implemented in Spain by way of an “Annual Plan”, according to which fishing days may be limited or individual quotas imposed on fishermen.

(See **Annex 4** for a detailed list of Spanish legislation relevant to Swordfish and Bluefin Tuna.)

# SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND BLUEFIN TUNA

Table 13

Overview of the legislation regulating the catch of Swordfish and Bluefin Tuna by the Spanish fishing fleet

	Areas	ICCAT Recs	EU Regulations	Spanish legislation
<b>Swordfish</b>				
SIZE LIMIT FOR FISH	Atlantic (excl. Mediterranean)	<25 kg and <125 cm (LJFL)		Implementation of ICCAT Recommendations and EU Regulations
	Mediterranean		<120 cm (LJFL) (Reg. (EC) 1626/94)	
TOLERANCE	Atlantic (excl. Mediterranean)	15% for <25 kg and < 125 cm (LJFL) fish		
	Mediterranean		0% for < 120 cm (LJFL) fish	
PROHIBITION		None	None	
ANNUAL QUOTAS FOR 1997 AND 1998	Total for N. Atlantic (excl. Mediterranean)	1997: 11 300 t 1998: 11 000 t	4537.5 t for Spain (Reg. (EC) 65/98)	
ANNUAL QUOTA 1999	N. Atlantic (excl. Mediterranean)	Total 10 700 t 41.25% (4413.5 t) for Spain	4413.5 t (Reg.(EC) 49/99)	
ANNUAL QUOTA FOR 1998, 1999 AND 2000	S. Atlantic	Total: 14 620 t 40% (5848 t) for Spain	5848 t for Spain (Reg.(EC) 1283/98)	
<b>Bluefin tuna</b>				
SIZE LIMIT FOR FISH	Atlantic (incl. Mediterranean)	< 6.4 kg	< 6.4 kg or < 70 cm (FL) in the Mediterranean	Implementation of ICCAT Recommendations and EU Regulations
TOLERANCE	Atlantic (incl. Mediterranean)	15% for < 6.4 kg fish	15% for < 6.4 kg or < 70 cm (FL) fish in the Mediterranean	
SUPPLEMENT LIMIT	W. Atlantic Canada, Japan and USA only	8% for < 30 kg and < 115 cm (FL) fish		
PROHIBITION	East Atlantic (incl. Mediterranean)	0 age fish < 1.8 kg since 1995		
	East Atlantic (incl. Mediterranean)	0 age fish < 3.2 kg since 21 June 1999	0 age fish < 3.2 kg since 1 January 1999 (Reg.(EC) 49/99)	
ANNUAL QUOTA 1998	eastern Atlantic		Total: 4452 t for EU (Reg. (EC) 65/98), 3809 t for Spain	
	Mediterranean		Total: 11 621 t for EU (Reg. (EC) 65/98), 2033 t for Spain	
ANNUAL QUOTA 1999	East Atlantic (incl. Mediterranean)	Total: 32 000 t 62.9% (20 155 t) for EU countries	Total: 16 136 t for EU, total: 5555 t for Spain (Atlantic and Mediterranean) (Reg.(EC) 49/99)	
ANNUAL QUOTA 2000	East Atlantic (incl. Mediterranean)	Total: 29 500 t 63% (18 590 t) for EU countries		

Notes: For ICCAT Recommendations relating to mortality rates for Swordfish and Bluefin Tuna, see Annexes 1 and 2 of this report.  
For additional EU Regulations relating to ensuring compliance with ICCAT (e.g. regarding use of fishing gears, monitoring trade of Bluefin Tuna inside the EU and observing fishing activities of all fleets, see Annex 3 of this report.

Sources: ICCAT reports, EU Regulations and Spanish legislation available in October 1999.

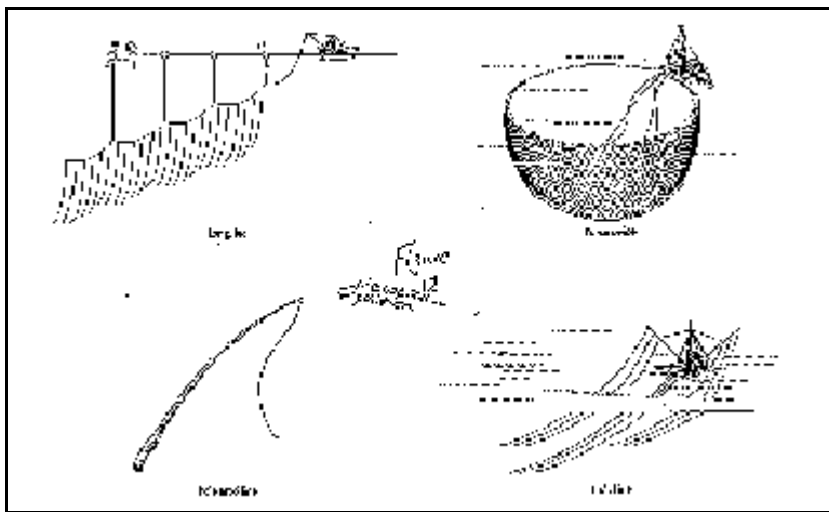
### Swordfish landings at survey sites during 1998

#### *Areas of operation, vessels and gear used by the Spanish fleet*

The Spanish fleet for Swordfish encompasses approximately 200 longliners (see **Figure 12**), which are known as *palangreros*. (Longliners that can store part of the fish fresh and part frozen are called *frescos mixtos*, and those that store the whole catch frozen are referred to as *congeladores*.) The fleet operates in international waters in the North and South Atlantic, the Pacific and the Indian Ocean.

**Figure 12**

**Illustrations of some fishing methods used by the Spanish fleet for catching Swordfish or Bluefin Tuna**



Source: Carocci and Majkowski, 1996

**North Atlantic:** On average, between 110 and 120 pelagic longliners fish for Swordfish in the North Atlantic. Part of the fleet fishes in national and international waters, while the remainder operates only in international waters. From May to September, about 20-30 vessels fish in the Bay of Biscay (in a fishery locally known as *Costera de Bonito*) for approximately 90 days. Vessels remain at sea for between 18 and 40 days. Normally eight to 12 fishermen work on each boat. To fish for Swordfish in this area, a temporary permit, known as a *Permiso Temporal de Pesca* (PTP), valid for three months, is required. The main landing sites are Vigo, Algeciras, La Guardia and Corunna.

**South Atlantic:** Approximately 43 pelagic longliners fish for Swordfish in the South Atlantic and may remain at sea for 150 days. Twelve to 14 fishermen usually work on each vessel. Fishing for Swordfish in this area requires a six-month PTP. Most of these vessels land in Montevideo (Uruguay) and send the fish to other landing sites by means of merchant ships, while about eight vessels land at La Guardia in north-west Spain.

**Mediterranean:** A large number of small vessels with a variety of unclassified gears (gears either unknown, uncommon, or not used on a large-scale) sail here for Swordfish. All store fresh and frozen fish, remaining at sea for two to eight days. Generally, 12-14 fishermen work on each vessel. The main landing ports are Algeciras, Almeria, Garrucha, Cartagena, Aguilas and Valencia.

### *Observations at sampling sites*

From 7 July to 29 September 1998, researchers monitored the landing of 13 895 Swordfish by 249 longliners - 78 in Vigo, 74 in Algeciras, 74 in Garrucha, 15 in Cartagena and eight in Aguilas. A total of 11 798 Swordfish were landed from the North Atlantic and 2097 from the Mediterranean.

At each of the landing sites monitored, fresh Swordfish were seen to be landed and auctioned off almost immediately. No frozen fish was seen. Fish were taken from the vessels, placed on wooden pallets, and transported by wheelbarrow to be weighed. The weight of each Swordfish was recorded on a piece of paper and displayed on the fish, for the benefit of potential buyers. Subsequently, fish were sorted according to the vessels that landed them, moved to the auction floor and washed. Prior to the auction, buyers were able to observe and choose the fish in which they were interested. The auctioneer called out prices per kilogramme in *pesetas*, or even in *duros* or *reales* (old Spanish currencies), starting at the highest price and decreasing the price until a bid was made. The buyer then selected individual fish and paid for them according to weight. Once purchased, the fish were loaded into trucks full of ice for transportation to different markets.

A variety of marketing strategies used when landing catches was reported to researchers. For example, when a number of vessels land Swordfish simultaneously and there are therefore many fish for auction, whole catches or parts of catches may sometimes be retained on board until prices on shore increase. Refrigerated areas away from the actual auction site may also be used for this purpose. On some occasions fishermen reportedly choose to take fish to other landing sites to receive higher prices, while another common strategy is reported to be so-called *segunda venta*, whereby the fish is first sold at Spanish or at international landing sites, such as in Portugal or Morocco, and then sold once again at other Spanish landing sites where prices are higher. Strategies to avoid control were also reported, such as the keeping of undersized Swordfish in cold storage until officials charged with enforcement had left, at which time they were sold by illegal auction. Alternatively, they may be sold shortly before official auctions take place.

Captains of vessels rarely provided information on fishing areas, but researchers were able to ascertain the location from which fish had been taken. Fishing dates, which provide some rough indications of fishing effort, were difficult to obtain.

According to reports from personnel interviewed at sampling sites, the economic depression in Asia in 1998 may have been reflected in the Swordfish trade market. In 1998, countries such as Singapore and Indonesia were selling their Swordfish catch in Spain at very low prices, presumably not able to sell more profitably in Asia.

### *Site-by-site observations*

**Vigo:** Longliners operating in the North Atlantic often landed Swordfish in Vigo. Only whole fresh fish was seen landed at this site although frozen fish also arrived at Vigo, mainly from the South Atlantic, in merchant boats and was landed at private factories. Fresh Swordfish weighing more than 100 kg were sent from Vigo, whole, to *Mercamadrid*. Fish weighing between 60-80 kg and in good condition were sent whole, wrapped in plastic, to Italy and the rest of the fish (the large individuals dressed, and the small ones whole) were consumed locally or packed in ice and driven to Valencia, Alicante, and Andalucía.

## SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND BLUEFIN TUNA

From July to September 1998, the price at auction of large Swordfish in Vigo varied from ESP475-1400/kg (USD3.30-9.80/kg) and that of undersized individuals (less than 125 cm LJFL/25 kg) from ESP255-1200/kg (USD1.78-8.40/kg).

**Algeciras:** North Atlantic longliners landed only fresh, whole, Swordfish at this site. From July to September 1998, the price at auction for large Swordfish in Algeciras was ESP540-1600/kg (USD3.80-11.20/kg) and that of undersized individuals ESP340-600/kg (USD2.40-4.20/kg). Most of them were sent whole to Valencia and Italy. A small number was retained for local consumption; fish were occasionally dressed.

### **Garrucha and Aguilas:**

Mediterranean pelagic longliners landed their Swordfish catches here. Auction prices of large Swordfish were found to be ESP950-1500/kg (USD6.65-10.50/kg) and those for undersized individuals ESP375-600/kg (USD2.60-4.20/kg). Once purchased, large fish were dressed and small fish remained whole. The largest fish were sent to Valencia and the rest locally consumed.



Board displaying minimum sizes permitted for various types of fish caught from the Mediterranean. Garrucha port, Spain, 1998.

**Cartagena:** Mediterranean pelagic longliners landed Swordfish at this port, where the price at auction for large Swordfish ranged from ESP1200 to ESP1450/kg (USD 8.40-10.15/kg). Undersized individuals fetched ESP300-400/kg (USD2.10-2.80/kg). Once purchased, large fish were dressed according to their destination; small individuals remained whole. All Swordfish landed was reported to be for local consumption.

**Alicante:** In the past, this port used to be one of the most important landing sites for Swordfish in the Mediterranean but nowadays the fishing fleet prefers to land in Cartagena, which offers better conditions for fish marketing (fish is sold whole, pricing is more stable, etc.). Nonetheless, Swordfish were landed in Alicante by Mediterranean pelagic longliners, all for local consumption.

### *Compliance levels observed*

Of the 11 798 Swordfish observed landed from the Atlantic, 4317, or 37%, were under 25 kg, fresh weight, the minimum size allowed by ICCAT. Although no minimum size requirement for Mediterranean Swordfish is specified by ICCAT itself, it was noted that of the 2097 Swordfish observed landed from the Mediterranean, (1806) 86% were under 25 kg in weight. According to the conversion factor for Mediterranean Swordfish where dressed weight =  $5.701 \times 10^{-6} \times \text{LJFL}^{3.16}$  (Miyake, 1990), this indicates that a similarly high proportion of Swordfish observed landed could have been under the legal limit of 120 cm (LJFL) in force in the EU. (Dressed weight is the weight of the Swordfish after gilling, gutting, removing the fins and part of the head.)

It is not known what percentage of the total landings of Swordfish at sampling sites in 1998 were observed during the survey. To try to place the survey into perspective, landings from previous years can be referenced. For example, the landings of Atlantic Swordfish observed by researchers in 1998 represented 7.9% of the mean number (149 400 individuals) of Swordfish landed per year between 1991 and 1995 by Spanish longliners in the North Atlantic and the landings of Mediterranean Swordfish observed represented 7.5% of the yearly mean number (28 035) of Swordfish landed from the Mediterranean during the same years.

### **Bluefin Tuna landings at survey sites during 1998**

#### ***Areas of operation, vessels and gear used by the Spanish fleet***

**Eastern Atlantic:** In the Bay of Biscay, in waters known locally as the *Mar Cantábrica*, 40 bait boats storing fresh fish from Fuenterrabia and Guetaria fish exclusively for bluefin while 400-500 other bait boats take Albacore (known locally as *bonito*). The fishing period in the Bay of Biscay (an area known locally as the *Costera de Bonito*) runs from July to October and coincides with the migration of immature Bluefin Tuna to these grounds. The fishing vessels remain at sea for 20 to 30 days and usually 10 to 14 fishermen work on each boat. The main landing sites are Fuenterrabia, Guetaria, and Algeciras. In the Straits of Gibraltar, traps (*almadrabas*) have been used since Roman times and many still operate. This fishing practice takes advantage of the breeding migration of the tuna from the Atlantic Ocean to the Mediterranean Sea. Inward migration begins at the end of May and the outward migration ends in September. Fish from such traps are generally landed directly onto Japanese factory vessels or at Algeciras. Neither the Japanese factory vessels nor the traps were monitored during this survey as access to the former was complicated by the fact that special permission would need to have been sought to board a Japanese vessel and permits to monitor traps were difficult to obtain owing to the risk of accidents associated with visiting them.

**Mediterranean:** Ships with longlines and a large number of ships of less than seven metres in length with unclassified gears usually fish for Bluefin Tuna in the Mediterranean, following the movement of fish and trade markets (including occasionally into the eastern Atlantic). The main landing site for these vessels is Algeciras. A complete list of such vessels does not exist, but about 5000-6000 are said to fish here. Usually, these vessels take many mature Bluefin Tuna from October to December. The vessels taking bluefin here are usually boats with two to three fishermen that store fresh fish and remain at sea for one to two days.

Fishing with rod but without bait, a gear known in Spanish as *saltillo*, is no longer being used for Bluefin Tuna but flourished several years ago. According to personnel interviewed at landing sites, this may be a result of Spanish regulations banning such gear, coupled with a change in the tuna spawning and nursing areas. This gear caught large numbers of immature tuna and the main landing sites were Aguilas and Garrucha.

A six-month PTP is required to fish for Bluefin Tuna in the Mediterranean.

#### ***Observations at sampling sites***

All Bluefin Tuna were seen to be landed fresh and whole. On board, the catch had been sorted in boxes containing between two and five fish. The tuna were landed, weighed, washed and auctioned in much the same way as Swordfish. In some landing sites, at the end of the auction, the number of Bluefin Tuna in

each weight category was written on a blackboard. Once the fish were purchased, they were loaded into trucks full of ice for transport to different markets.

Researchers learned that there are many ways of avoiding administration controls, including, for instance, landing at unusual hours. Some vessel captains with a catch which does not conform with legal requirements are reported to telephone accomplices on shore, who in turn contact a potential buyer. The ship then arrives at a previously arranged time and lands the catch, which is immediately loaded into a truck. During the last week in July 1998, bait boats storing fresh fish from Guetaria and Orio, in transit to Burdeos, were reported to have caught a school of immature Bluefin Tuna and sold most of the catch. During the third week of July 1998, a similar vessel from Orio landed about 1400 Bluefin Tuna, weighing 3.8 kg on average, at midnight in Motrico. Even though this situation was made public, it has reportedly not yet been officially addressed by the responsible authorities.

According to reports from personnel interviewed at sampling sites, demand for Bluefin Tuna had fallen in Japan in 1998, resulting in lower prices for the fish in Spain. Reportedly, a number of tuna sent to Japan were returned to Spain for sale at lower prices than they had first been sold for. Many tuna caught by trap in August and September, when the fish returned to the Atlantic from spawning in the Mediterranean, were not sent to Cartagena for export to Japan, as had been usual in other years. Moreover, many Mediterranean longliners which would normally have begun fishing in September, did not begin until October in 1998.

#### *Site-by-site observations*

**Fuenterrabia:** Bait boats operating in the Bay of Biscay land their catch in Fuenterrabia and researchers observed the landings from 56 boats at this site. All tuna landed were transported onwards whole. Most of the large fish were sent to Cartagena, the location of one of the main exporting companies, and the rest to Alicante for local consumption. Small fish were consumed locally in Fuenterrabia. During the third week of July 1998, some vessels from Fuenterrabia caught large numbers of undersized Bluefin Tuna (with weights of three kilogrammes on average). Fishermen intended to sell the catch at the Fuenterrabia landing site, but the Secretary of the local Fishermen's Association did not allow them to do so, and the fish were finally given to charity organizations.

In August 1998 the price at auction of large Bluefin Tuna ranged from ESP750 to 780/kg (USD 5.25-5.45/kg); undersized individuals (less than 6.4 kg) sold for around ESP705 (USD 4.95/kg).

**Algeciras:** Tuna bait boats storing fresh fish, pelagic longliners and boats with unclassified gears operating in the Mediterranean, following closure of the *Costera de Bonito* fishery in the Bay of Biscay, were landing their fish in Algeciras. Researchers observed landings of Bluefin Tuna from eight bait boats at this site. The tuna caught by bait boats were stored fresh and whole in boxes, according to their size. These boxes were landed, weighed and then sold. Ships with pelagic longlines and those with unclassified gears also landed Bluefin Tuna whole and fresh, but the fish were weighed individually, auctioned at the landing site, packed in ice and driven away by truck. Most of the large individuals were sent to the large exporting company in Cartagena. The rest were sent to Alicante to be consumed there and small fish were dressed for consumption in Algeciras itself, either to be sold fresh in markets or restaurants, or dried for what is locally known as *mojama* (salted tuna).

From May to August, two large Japanese factory vessels operated in Algeciras port. These vessels obtained fish from traps, to be sent to Japan. These vessels mainly took breeding Bluefin Tuna caught

during the inward migration, since these individuals have a high fat content. Upon arriving at the factory vessel, the fresh tuna were weighed before being gutted, gilled, dressed and finally frozen. During August and September, fishermen switched the orientation of the traps to catch Bluefin Tuna returning to the Atlantic after spawning (a process referred to locally as *captura al revés*). Because fat content at this time is less than at the onset of the breeding season, some tuna caught at this time of the year were sent to Japan via Cartagena, but others were destined for local markets.

From July through September 1998, the price at auction of large Bluefin Tuna varied from ESP500 to 600/kg (USD3.50-4.20/kg); undersized individuals sold for around ESP209/kg (USD1.45).

**Aguilas and Garrucha:** These landing sites used to be the main landing areas for Bluefin Tuna caught by *salttillo*. Some Mediterranean longliners landed fresh whole Bluefin Tuna here in 1998 and researchers observed landings from five longliners in Aguilas. Most of the large fish were sent to Cartagena and the rest to Alicante, where Bluefin Tuna is highly appreciated. Small individuals were dressed for local consumption in markets, restaurants and for *mojama*.



Credit: Miguel Murcia

Garrucha, one of the survey sites on the Mediterranean coast of Spain, September 1998

**Cartagena:** Mediterranean longliners landed fresh whole Bluefin Tuna in Cartagena, site of the important Bluefin Tuna export company. Researchers observed landings from five longliners at this site. Longliners catching large tuna sometimes landed straight to the factory. In particular, four or five French purse seine vessels supplied the factory. This company has cages in which tuna are kept and fed, and also a factory with its own landing site. At the company, tuna are analysed for their fat content and those with a higher fat content sent to Japan. Those with less fat, along with small Bluefin Tuna sold in landing sites, are set aside for local consumption, fresh or dried.

The presence of the export company lessened price fluctuations in Cartagena, since the company is able to release fish for sale to meet demand, owing to its use of feeding cages. The stability of prices in Cartagena encouraged fishermen to land there. From July to September 1998, the price at auction of large Bluefin Tuna was around ESP800/kg (USD5.60/kg), and ESP500/kg (USD3.50/kg) for undersized individuals.

## SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND BLUEFIN TUNA

### *Compliance levels observed*

From 13 July to 30 September 1998, TRAFFIC Europe recorded the landing of a total of 18 225 Bluefin Tuna, 17 971 from 64 bait boats from the eastern Atlantic and 254 from 10 longliners from the Mediterranean.

Of the 17 971 Bluefin Tuna landed from the eastern Atlantic, 15 354 were landed north of 40° N and, of these, 9091 were undersized according to ICCAT's Recommendations, namely under 6.4 kg, fresh weight. Of the 2617 fish seen landed south of this latitude all were above the minimum size, indicating high levels of compliance in this area. Fishermen here were generally co-operative with researchers. Of the 254 Bluefin Tuna monitored in landings from the Mediterranean, 210 were below the minimum size of 6.4 kg.

Overall, therefore, but particularly in the Mediterranean fishery, the 15% tolerance limit per landing for undersized Bluefin Tuna was greatly exceeded. Bluefin Tuna weighing less than 1.8 kg were not observed during the surveys, which may indicate the success in terms of banning the harvest of these juveniles at least.

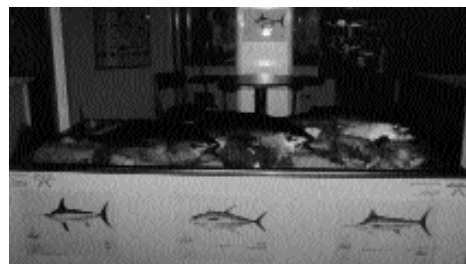
It is not possible to know now what percentage of the total landings of Bluefin Tuna were sampled during the survey. To try to place the 1998 survey into perspective, landings from previous years can be referenced. For example, in 1998, the total landings of Bluefin Tuna monitored represented 16.2% of the mean number of Bluefin Tuna landed per year between 1991 and 1995 by Spanish vessels from the eastern Atlantic (110 892 fish) and 0.15% of those from the Mediterranean (168 026).

A number of those interviewed expressed concern about undeclared catches of Bluefin Tuna from non-ICCAT countries and from ships with flags of convenience.



Swordfish on sale for ESP1800 (USD12.60) per kg at Alicante fish market in August 1998

Credit: E. Fleming



Credit: C. Raynal

Various tuna products on display at the European Seafood Exposition, Brussels, April, 1998. Fresh Bluefin Tuna constituted Spain's most valuable fish export in 1998.

### **By-catch observed at sampling sites**

From July to September 1998, researchers observed that over 17 000 Blue Sharks *Prionace glauca* (*quella* or *tintorera* locally) and almost 8000 makos were landed by the North Atlantic Swordfish fishery. In Vigo, North Atlantic longliners landed large numbers of by-catch species, the most numerous of which were Blue Shark and Shortfin Mako *Isurus oxyrinchus* (*mako* or *marrajo* locally). Other by-catch species of this fishery observed landed at Vigo included White Marlin *Tetrapturus albidus* (*pez vela*), Thresher Shark *Alopias vulpinus*, Bigeye Thresher *Alopias superciliosus* (*pez zorro*), various tunas and other species. There was a large volume of by-catch associated with the North Atlantic Swordfish fishery observed landed in Algeciras. The most frequently landed species here were Blue Shark and Shortfin Mako. Blue

Table 14

Summarized results for numbers of vessels and fish sampled at survey sites, July-September 1998

**Swordfish**

	<b>Total</b>	<b>North Atlantic (north of 5°N)</b>	<b>Mediterranean</b>
Sample (no. of fish)	13 895	11 798	2097
No. of fish < 25 kg	6124	4317	1806
Percentage of fish < 25 kg	44%	37%	86%

No. vessels sampled: 249  
(all longliners)  
Algeciras: 74  
Vigo: 78  
Aguilas: 8  
Alicante: 0  
Cartagena: 15  
Garrucha: 74  
(Fuenterrabia not surveyed for Swordfish)

**Bluefin Tuna**

	<b>Total</b>	<b>Eastern Atlantic</b>		<b>Mediterranean</b>
Sample (no. of fish)	18 225	17 971		254
		<b>Bay of Biscay/ Mar Cantábrica</b>	<b>remainder of eastern Atlantic (south of 40°N)</b>	
		15 354	2617	
No. of fish < 6.4 kg	9301	9091	0	210
Percentage of fish < 6.4 kg	51%	59%	0%	83%

No. vessels sampled: 74  
(86% live bait boats  
and 14% longliners)  
Algeciras: 8  
Fuenterrabia: 56  
Aguilas: 5  
Alicante: 0  
Cartagena: 5  
Garrucha: 0  
(Vigo not surveyed for tuna)

Note: The number of Swordfish sampled from the North Atlantic represents 7.8% of the annual average number of Swordfish caught 1991-95 from that area; the number sampled from the Mediterranean represents 7.4% of the annual average of Swordfish caught during that period from the Mediterranean. The number of Bluefin tuna sampled from the eastern Atlantic represents 16.2% of the annual average number of Bluefin Tuna caught 1991-95 from that area; the number sampled from the Mediterranean represents 0.1% of the annual average of the species caught 1991-95 from the Mediterranean.

Sources: Güemes *et al.*, 1998 and ICCAT biennial reports from 1991-95.

Shark was sent mainly to Puerto de Santa María and the mako to Seville and Granada. Other by-catch species observed here included White Marlin, Ray's Bream or Atlantic Pomfret *Brama brama* (*palometa*), Thresher, Bigeye Thresher, Smooth Hammerhead *Sphyrna zygaena* (*pez martillo*), Dolphinfin *Coryphaena* spp. (*lampuga*), and various tunas and other species.

By-catch observed from the Mediterranean Swordfish fishery was mainly Blue Shark. More than 500 of these sharks were seen, making up about one-quarter of landings seen from this fishery.

By-catch from the Bluefin Tuna fishery at all sites monitored was not seen to be as significant as that among Swordfish landings.

## CONCLUSIONS AND DISCUSSION

In 1998, researchers commissioned by TRAFFIC monitored the landing of 13 895 Swordfish and 18 225 Bluefin Tuna in Spain. The results of field research found that percentages of fish under the ICCAT-specified size in landings sampled were well in excess of the 15% allowed for Swordfish from the North Atlantic (37% of 11 798 fish) and for Bluefin Tuna from the Atlantic (51% of 17 971 fish) and Mediterranean (83% of 254 fish). Breaking down survey results for Bluefin Tuna from the eastern Atlantic, it may be noted that non-compliance with minimum size limits was particularly high at landing sites for the *Mar Cantábrica* area in the Bay of Biscay, in contrast to 100% compliance observed for fish landed from the eastern Atlantic in southern Spain (south of 40° N).

The Mediterranean stands out as an area where minimum size limits for Bluefin Tuna are flouted, if survey results are indicative. Survey observers reported that the level of compliance by Spanish fishers with ICCAT Recommendations for size limits for Bluefin Tuna seemed better in the Atlantic than in the Mediterranean.

Field work conducted for this report observed that most Swordfish from the Mediterranean, where EU, rather than ICCAT limits apply to the species, weighed less than 25 kg. Using the conversion factors specified by Miyake (1990), it can be inferred that a high proportion of these could also have been under the limit of 120 cm (LJFL) in force in the EU. These findings appear to be in line with those from a study funded by the European Community, that reported that percentages of Swordfish under 120 cm LJFL in catches by Spanish longliners in the Mediterranean were 83% in 1992, 81% in 1993 and 82% in 1994 (Anon., 1995a). Other data indicate that in 1997 the vast majority (>75%) of Swordfish landed by the Spanish longliner fleet was shorter than 120 cm (LJFL) (de la Serna *et al.*, 1999).

Fish weighing less than 1.8 kg were not observed during any of the surveys of landing sites, which may be a result of Spanish enforcement of the ICCAT Recommendation prohibiting the landing of Bluefin Tuna less than 1.8 kg. However, according to the 1999 SCRS report, "it is known that there are catches of age 0 fish, but they are clearly under-reported".

The size of the survey sample is small: 7.9% and 7.5% of the Spanish average annual catch of Swordfish from 1991 to 1995 in the North Atlantic and Mediterranean respectively; and 16.2% and 0.15% of the Spanish average annual catch of Bluefin Tuna from 1991 to 1995 in the eastern Atlantic and Mediterranean, respectively. However, the results of the surveys are in line with official ICCAT reports which record percentages of undersized Swordfish and Bluefin Tuna landed by Spanish fleets from 1986 to 1997 as exceeding the 15% tolerance limit (**Tables 3, 6 and 7**).

Research into the regulatory framework governing Spanish Bluefin Tuna and Swordfish fisheries concluded that the content of various ICCAT Recommendations and EU Regulations have been incorporated into the national legislation of Spain. Basic mechanisms for penalizing violations of these laws exist, but despite these, researchers noted that undersized Swordfish and Bluefin Tuna were landed in Spain without official intervention and that fishermen could quite easily sell undersized fish at auction. Fishermen used a variety of marketing strategies when landing their catch to maximize its value and avoid official inspection in the landing sites. It would appear that a coherent strategy for the application of sanctions and penalties for violation of laws regulating Bluefin Tuna and Swordfish fisheries is lacking in Spain.

Surveys of ICCAT reports of Spanish non-compliance with Recommendations for catch limits revealed that, while Spanish catches of Swordfish steadily decreased in both the North and South Atlantic (1995-97), the quotas also decreased, and Spanish catches remained out of compliance. Moreover, ICCAT reports that, even were catches to keep within the limits set by the Commission, this may not be sufficient to meet its objectives for maintaining Swordfish populations. Likewise, for Bluefin Tuna, reported catch levels exceeded ICCAT quotas for Spain in the East Atlantic, 1995-97, and, also similarly, the SCRS reported in 1998 that the current catch level was not sustainable and that even a reduction to a level 25% less than the 1994 catch level would not be sufficient to halt a decline in spawning stock.

It is recognized that Spain is not the only ICCAT Party to exceed set limits for its Swordfish and Bluefin Tuna fisheries and that France, Japan, Italy, Morocco and the USA, for example, also have problems with compliance, according to ICCAT reports.

Since international trade trends, such as the rising prices of chilled fresh Bluefin Tuna in Japan in recent years, play a role in the evolution of fishing pressure, legal mechanisms to monitor the trade in Bluefin Tuna adopted by ICCAT and EU Member States for Bluefin Tuna are appropriate (see **Annexes 2 and 3**).

The surveys reported significant landings of shark by-catch, particularly of Blue Sharks among the Atlantic Swordfish landings, and this finding suggests that ICCAT should address the insufficient selectivity of Swordfish longlines.

During background research for the present study several obstacles that slow the progress towards attainment of ICCAT's objective, besides those already mentioned, were identified. These include heterogeneous reporting regimes for fisheries data (regarding landings, discards, undersized fish, etc.) between agencies and between countries, the absence of official records of by-catch from Swordfish and Bluefin Tuna fisheries, and perceived lacuna in the legislative provision of some countries for the implementation of ICCAT Recommendations. These issues are addressed in the **Recommendations** of this report.

This study demonstrates poor compliance with ICCAT's minimum size requirements for Swordfish and Bluefin Tuna among landings observed during field research. These findings serve only to underline what is already a recognized problem - lack of compliance with ICCAT Recommendations pertaining to size limits for these fish - not only for Spain, but for other fishing entities also. Other elements of this study refer to the failure of Spain, and others, to comply with catch limits set by ICCAT. In conservation terms, this means that large numbers of fish are being taken from the sea, often at an immature age, at rates which ICCAT itself estimates to be unsustainable. It should be noted in this context, that the high proportions of Swordfish under 25 kg observed landed from the Mediterranean by researchers were not in contravention of ICCAT Recommendations and hence not a compliance issue within that forum. It follows that, if

ICCAT is to improve its success in managing fisheries within its scope, it must not only improve compliance with existing ICCAT Recommendations, but fill important gaps among these.

## RECOMMENDATIONS

During research for this study, which focused on Spain, some generic concerns relating to the regulatory structure of ICCAT's management regime for Swordfish and Bluefin Tuna were highlighted. It is with these in mind that some recommendations to the implementing bodies of ICCAT and others have been formed.

### To the implementing bodies of ICCAT

- There is an urgent need for ICCAT to adopt Recommendations dealing with Swordfish exploitation in the Mediterranean, through annual catch quotas for each fishing nation, as well as by the application of minimum size limits in terms of weight and length for this species in the Mediterranean Sea. Such recommendations should be based on in-depth analysis of the stock structure of Swordfish in the North Atlantic and in the Mediterranean, considering that these Swordfish may belong to a single stock.
- In their reports, ICCAT implementing bodies point out that only some countries provide the necessary data on their annual catches of tunas and tuna-like species, i.e. landings per gear, discards and undersized fish. ICCAT should adopt mechanisms to try and ensure that both Contracting and non-Contracting Parties provide ICCAT with complete and accurate annual reports on landings per gear. Information on transshipments, discards, undersized fish and by-catch of Swordfish and Bluefin Tuna fleets should be included. Reporting of catches as from unclassified ("UNCL") gear should be discouraged. If reporting remains ineffective, ICCAT should strive to recommend stricter measures, such as establishing quotas based on the level of reporting and on the demonstrated quality of the data. In other words, if a country does not report, or if there are discrepancies in a country's reported data, then ICCAT should consider allocating it a zero catch limit for the following year.
- In recent years, ICCAT adopted Recommendations allowing for eventual trade sanctions, following warnings, against Contracting and non-Contracting Parties. Such Recommendations should be implemented systematically to put more pressure on relevant nations to improve enforcement of ICCAT minimum size and catch limits for Swordfish and Bluefin Tuna. For example, ICCAT should allocate lower catch limits to those nations whose fisheries do not comply with ICCAT provisions.
- ICCAT biennial and SCRS reports indicate that countries regularly exceed both their catch limits and the tolerance limits agreed for catches of undersized fish. Surveys for this report support these indications. In order to improve the implementation of Recommendations on such limits, ICCAT should consider adopting supplementary Recommendations based on the biology of the species, defining fishing seasons, fishing zones and fishing gear per species and per fishing area. ICCAT should consider establishing no-fishing zones in spawning and nursery grounds and other key areas for reproduction and recruitment, according to species, in the Atlantic and in the Mediterranean.
- The results of site surveys conducted for this report found that large numbers of several species of sharks are landed by Swordfish longliners. It is possible that additional by-catch is taken and discarded. ICCAT should seriously address the fact that the Swordfish fishery in the Atlantic and

Mediterranean uses non-selective fishing gear and is therefore a "multi-target fishery". ICCAT and its Contracting Parties should set up programmes to record discards and by-catch levels of all species in fisheries within the scope of its jurisdiction. If not already done so, information about by-catch should be recorded by Swordfish-fishing nations and made available to relevant bodies and institutions (e.g. FAO, the IUCN/SSC Shark Specialist Group and the European Elasmobranch Association) with the objective of better collaboration in monitoring species included in by-catches.

- Catches in excess of annual quotas and quantities of undersized fish harvested in excess of tolerance levels set by ICCAT suggest that Parties face difficulties in the enforcement of relevant ICCAT Recommendations in their territorial waters. In order to try and overcome this problem, the recently-adopted Council Regulation (EC) No. 1351/99 requires that EU Member States inform the European Commission of fishing activities in contravention of ICCAT Recommendations. This Regulation insists on the need to report observations of vessels flying the flag of another ICCAT Contracting Party, or non-Contracting Party, or nationality which is not apparent, that appear to be fishing for species under the jurisdiction of ICCAT. It is recommended that ICCAT propose that such observations are also documented for the relevant ICCAT implementing bodies on a regular basis (for example, annually).
- In order to monitor all catches from national and foreign vessels better, Regulation (EC) No. 49/1999 was adopted. It insists that EU Member States introduce recording systems that allow monthly estimation of the total quantity of fish landed or transhipped by vessels flying their flag or registered on their territory, and the total quantity of fish landed in their ports by vessels flying the flag of other Member States or registered in them. Member States shall report such total quantities to the European Commission by the 15th of every month. ICCAT should recommend that fishing nations include clear annual reporting of tunas and tuna-like landings by foreign vessels in their ports as well as transhipments by all vessels.

#### **To nations involved in Swordfish and Bluefin Tuna fisheries in the Atlantic and Mediterranean**

- The European Council has worked effectively in adopting new Regulations and amending existing ones to ensure compliance with ICCAT Recommendations in Member States. These initiatives expand the impact of ICCAT and therefore EU Member States should step up their efforts to enforce Council Regulations pertaining to Swordfish and Bluefin Tuna. This may include the defining of legal sanctions and penalties in case of violation of Regulations and improving of enforcement capacity for the relevant authorities (e.g. harbour masters and their staff). This is particularly important because EU Regulations:
  - transform ICCAT "recommendations" into EU law,
  - include regulation of catches of Swordfish by EU countries in the Mediterranean (especially important because Italy is the main Swordfish-fishing country in the Mediterranean, and
  - relate to EU Member States that have not acceded to ICCAT. (Until 1998, only France, Italy, Portugal, Spain and the UK were Parties to ICCAT among EU Member States.).
- Non-EU countries involved in fishing Swordfish and Bluefin Tuna should review their legislation and enforcement procedures to consider whether a system is in place to conserve these species and enact new laws as appropriate. This is particularly relevant to countries operating in the Mediterranean and to the management of their Swordfish fishery in the Mediterranean where ICCAT Recommendations and GFCM resolutions lack.

- The analysis of Spanish legislation conducted for this report shows that, in the past two decades, Spanish authorities have made an effort to adopt the necessary legislation to incorporate ICCAT Recommendations with regard to landings of tunas and tuna-like species into their national legislation. They should now use that legislation to penalize fishing companies, both Spanish and foreign flag vessels (whether members of ICCAT or not), that land their catch in Spanish ports illegally.
- Using the Council Regulations relating to the monitoring of trade of Bluefin Tuna inside the EU as a model, Spain and other nations, as applicable, should consider adopting supplementary legislation to monitor and control wider international trade in Bluefin Tuna, particularly with Japan, and to tackle cases of irregularity. The Regulations designate special forms for recording information on destination of product, type of product and volumes with space for authentication by a government official.
- The use of FAO statistics (Fishstat) to complete gaps in ICCAT records during research for this report revealed that discrepancies exist between data from these two sources. It is therefore recommended that countries adopt the necessary means to centralize the keeping of accurate and complete records for transferral to responsible international institutions such as ICCAT and FAO.

**To other institutions and organisations dealing with Atlantic and Mediterranean Swordfish and Bluefin Tuna fisheries**

- Among recently amended and adopted EU Regulations none addresses the increase in catch of Swordfish in the Mediterranean revealed by ICCAT reports and the concern it raises about the possible over-exploitation of the species. In 1997, Italy reported the highest catch, 6104 t or 42% of the Mediterranean Swordfish catch of the year. The EU Member States should urgently adopt the necessary regulation to manage Mediterranean Swordfish better. Annual catch limits should be allocated per EU Member State for the Mediterranean Swordfish fishery.
- Swordfish and particularly Bluefin Tuna fisheries are of significant economical importance, as shown by official trade data, and policies and communications surrounding these fisheries are often highly sensitive. Stakeholders might be reluctant to report their activities, or to collaborate in monitoring efforts and controls. Therefore, surveys such as that forming the basis of this report should be undertaken regularly in both Contracting and non-Contracting Parties to ICCAT. These surveys might be performed by independent researchers and in addition to assessing catches of undersized tunas and tuna-like species of special concern could also investigate discards and by-catch.
- The surveys in Spanish ports conducted for this study indicate a significant by-catch of sharks and other species landed by Swordfish longliners. Given the fact that several of these species are considered threatened or endangered, there is an urgent need to examine volumes and species composition of the Swordfish by-catch, together with the issue of gear selectivity. Based on the results of such research, to be undertaken by independent agencies, international institutions (e.g. ICCAT and FAO) and national institutions (e.g. the government fisheries department) should propose strict regulatory measures for gear characteristics, fishing seasons, and fishing zones in order to reduce the by-catch of tunas and tuna-like fisheries.

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**ANNEX 1: CURRENT BINDING MANAGEMENT RECOMMENDATIONS AND NON-BINDING RESOLUTIONS ADOPTED BY ICCAT FOR THE CONSERVATION OF SWORDFISH**

by J. Lynham and A. Barreira

**Current binding management Recommendations adopted by ICCAT for the conservation of Swordfish**

- ***Swordfish catch and size limits – entered into force on 1 July 1991***

**Entire Atlantic** – Contracting Parties to take the necessary measures to prohibit the taking and landing of Swordfish, weighing less than 25 kg live weight (125 cm LJFL) with tolerance of 15% of the total number of fish per landing of undersized fish allowed for incidental catch for Contracting Parties.

**Entire Atlantic** – Contracting Parties that directly fish for Swordfish shall take the necessary measures to limit the fishing mortality rates of Swordfish to the level of the catch in 1988, or will limit the fishing effort that will result in the equivalent level of fishing mortality.

**North of 5°N** – Contracting Parties whose nationals have been actively fishing for Swordfish in the North Atlantic to take measures to reduce fishing mortality of Swordfish less than 25 kg by 15% from recent levels, determined by the catch in 1988.

- ***Swordfish catch quotas – entered into force on 2 October 1995***

**North Atlantic** – 1995 Spanish quota 6230 t

**North Atlantic** – 1996 Spanish quota 5500 t

**South Atlantic** – Contracting Parties whose catches are greater than 250 t shall not increase their catches during 1995 and 1996 beyond the higher of their 1993 or 1994 levels. Contracting Parties whose catches are less than 250 t shall not increase their catch in 1995 or 1996 beyond 250 t.

**Entire Atlantic** – Contracting Parties are encouraged to take other appropriate measures to protect small Swordfish, including, but not limited to, the establishment of time and area closures, possibly determined by test fisheries. Contracting Parties are further encouraged to conduct the necessary studies to determine whether gear selectivity can reduce catches of undersize fish.

- ***Alternative options for the conservation of undersized Swordfish and the reduction of fishing mortality – entered into force on 22 June 1996***

As an alternative to the recommendation effective on 1 July 1991 on minimum size (25 kg/125 cm LJFL with 15% tolerance), Contracting Parties may choose to take measures to prohibit the taking, landing and sale in their jurisdiction of Swordfish measuring less than 119 cm LJFL, or the equivalent in weight, with no tolerance. A Party which chooses this alternative shall require appropriate record-keeping of discards. (Spain has implemented the 1991 recommendation for 25 kg/125 cm LJFL minimum size limit – see **Annex 3**).

- ***Establishment of percentage shares of total allowable catch (TAC) for nations fishing for North Atlantic Swordfish – entered into force on 22 June 1996***

Percentage shares of TAC to commence in 1997 and to continue unless otherwise agreed:

Canada: 10%

Japan: 6.25%

Portugal: 7.50%

Spain: 41.25%

USA: 29%

Others (total): 6%

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Any amount by which an annual catch is under or over the TAC may be added to or subtracted from the following year's quota as appropriate. Contracting Parties subject to this allocation scheme shall take the necessary measures to implement this recommendation.

- ***Extension of South Atlantic Swordfish management measures – entered into force on 4 August 1997***

Contracting Parties whose South Atlantic catches are greater than 250 t shall not increase their catches during 1997 beyond the Party's 1993 or 1994 level, whichever is the higher. Contracting Parties whose catches in the South Atlantic are less than 250 t shall not increase their catch in 1997 beyond 250 t.

- ***North Atlantic Swordfish catch quotas for 1997, 1998 and 1999 – entered into force on 4 August 1997***

<b>TAC for all fishing nations</b>	<b>Spanish quotas</b>
(1997) 11 300 t	4661.25 t
(1998) 11 000 t	4537.50 t
(1999) 10 700 t	4413.75 t

Annual under-harvest for each country may be added to the subsequent year's quota.

All countries catching Swordfish to make all efforts to report annual statistics on catch, sizes caught (and sex, where possible) and effort, even when no analytical stock assessment is scheduled. The SCRS to review these data annually.

- ***Recommendations regarding compliance in the North Atlantic Swordfish fishery – entered into force 4 August 1997 (extended to include South Atlantic fishery on 12 September 1998)***

### **North Atlantic**

Starting in 1997, each Contracting Party whose landings as provided by the Task 1 data, exceed its catch limit will explain to the Compliance Committee how the over-harvest occurred, and the actions already taken or to be taken to prevent further over-harvest.

If in the applicable management period, beginning in 1997, any Contracting Party exceeds its catch limit, its catch limit in the next subsequent management period will be reduced by 100% of the amount in excess of such catch limit, and ICCAT may authorize any other appropriate actions.

If any Contracting Party exceeds its catch limit during any two subsequent management periods, the Commission will recommend appropriate measures which may include, but are not limited to, reduction in the catch limit equal to a minimum of 125% of the excess harvest and if necessary, trade restrictive measures. Any trade measures under this paragraph will be import restrictions on the subject species and consistent with each Party's international obligations.

- ***Recommendations to improve compliance with minimum size limit regulations – entered into force on 13 June 1998***

### **Entire Atlantic**

Contracting Parties to immediately implement measures to ensure the monitoring and enforcement of the minimum size regulations for ICCAT stocks.

Each Contracting Party whose harvest of any ICCAT stock exceeds the specified minimum size tolerance level adopted by the Commission shall explain to the Compliance Committee: the magnitude of the over-harvest; domestic measures implemented to avoid further over-harvest; monitoring of compliance with domestic measures; any other actions to be taken to prevent further over-harvest.

## SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND BLUEFIN TUNA

Beginning at the 2000 Commission Meeting, if any Contracting Party's actions have failed to prevent further over-harvest, the Commission may recommend measures to reduce harvest of undersized fish which may include, but are not limited to time and area closures, assignment of small fish quotas and/or gear restrictions.

- ***Establishment of percentage shares of Total Allowable Catch (TAC) and 1998-2000 catch quotas for South Atlantic Swordfish – entered into force on 13 July 1998***

A TAC of 14 620 t shall apply for each of the years 1998, 1999 and 2000. Allocation scheme established for 1998, 1999 and 2000: Brazil: 16%; Japan: 25.75%; Spain: 40%; Uruguay: 4.75%; other Contracting Parties: 5.5%; others: 8%.

The TAC for the year 2000 may be revised at the 1999 meeting should the 1999 stock assessment so require. The Spanish quota for 1998, 1999 and 2000 = 5848 t

Contracting Parties and others to adopt measures of effort limitations and catch control that may be necessary to ensure compliance with the above quotas.

- ***Supplementary recommendation regarding compliance of Atlantic Swordfish fisheries- entered into force on 21 June 1999***

Any quota/catch limit that has not been used (if specified in the relevant management recommendation) and excess produced in relation with the annual quota are to be subtracted or added, as appropriate, to the respective quota/catch limit during or before the adjustment year, as set forth below:

Harvesting year	Adjustment year
1997	1999
1998	2000
1999	2001

- ***Recommendation on the application of three compliance recommendations-entered into force on 21 June 1999.*** (The three recommendations referred to are: “ICCAT Recommendation on implementation of ICCAT Recommendation regarding compliance of the North Atlantic Bluefin Tuna and Swordfish Fishery”, “ICCAT Recommendation regarding compliance of the South Atlantic Swordfish Fishery” and “ICCAT Recommendation to improve compliance with Minimum Size Regulations”.)

Each Contracting Party shall include in its National Reports a completed “ICCAT Reporting Table” for each of its applicable fisheries (the Recommendation attaches a model table for reporting 1997). The Tables shall be completed each year with the catch statistics submitted to the SCRS for the current reporting year and any revisions for previous years' data.

Each Contracting Party shall report the information presented in its ICCAT Reporting Tables, including a detailed explanation of the total catch, of any over-harvest and/or of minimum size tolerance levels, the actions already taken, or to be taken, to prevent further over-harvest, and the dates by which such actions will be taken.

Annually, after all Contracting Parties have reported in accordance with the previous paragraph, the Compliance Committee, with the assistance of the ICCAT Secretariat, shall prepare and distribute to Contracting Parties a “Compliance Annex” that includes: (1) all catch limits and minimum sizes/tolerance to which each Contracting Party is subject; (2) each Party's catch statistics submitted to the SCRS for the current reporting year, and any revisions to a previous year's data; (3) reports of any over-harvests or under-harvests; (4) all catch limit reductions shall be taken. The Compliance Annex will be attached to the Compliance Committee Report.

**Current non-binding resolutions adopted by ICCAT for the conservation of Swordfish**

- ***Action Plan to ensure the effectiveness of the conservation programme for Atlantic Swordfish – transmitted to the Contracting Parties on 21 December 1995***

The Commission through its appropriate subsidiary body shall review annually the implementation of the Commission's conservation recommendations by each Contracting Party. The Commission will recommend annually any new measures to be taken to ensure Compliance by the Contracting Parties.

To ensure the effectiveness of ICCAT conservation recommendations for Atlantic Swordfish, the Commission will recommend that Contracting Parties take non-discriminatory trade restrictive measures consistent with their international obligations with respect to Atlantic Swordfish products in any form from non-Contracting Parties.

- ***Resolution for the development of recovery scenarios for North and South Atlantic Swordfish- adopted at the 11th Special Meeting of the Commission (November 1998) and transmitted to the Parties on 22 December 1998***

If the 1999 stock assessment of North and South Atlantic Swordfish populations indicate that the biomass of either stock is below the Maximum Sustainable Yield (MSY), then at its 1999 assessment meeting, SCRS will develop rebuilding options for North and South Atlantic Swordfish stocks.

Based on stock previsions, the SCRS shall estimate a series of annual TACs (including dead discards) that are necessary to rebuild the biomass levels that would support MSY with a probability greater than 50% within five-, 10- and 15-year time periods and/or other appropriate times. The biomass rebuilding plans shall include scheduled assessments of the progress being made towards accomplishing the goals.

The SCRS shall explicitly describe the method by which discards were estimated and included in its assessment and previsions.

The SCRS shall evaluate the effectiveness of the current Swordfish regulations for achieving the ICCAT Swordfish conservation measures, especially the minimum size limit, and evaluate alternative methods for reducing small fish mortality.

All Contracting Parties, non-Contracting Parties, entities, and fishing entities shall undertake to provide SCRS with the best available data on Task I, Task II, catch at size (including discard mortality) and CPUE (catch per unit effort) to support this assessment.

In addition, studies should be carried out to clarify the criteria for assigning to the North Atlantic or Mediterranean stocks catches taken by those fleets that fish in the areas close to the Strait of Gibraltar.

- ***Resolution concerning the unreported and unregulated catches of tunas by large-scale longline vessels in the Convention area- adopted at the 11th Special Meeting of the Commission (November 1998) and transmitted to the Parties on 22 December 1998***

(The Resolution applies to Atlantic Bluefin Tuna, Bigeye Tuna, Swordfish and other tunas and tuna-like species.)

The Commission shall request Contracting Parties and non-Contracting Parties/entities or fishing entities that import frozen tunas and tuna-like fish products, or in which those products are landed, to collect and examine as much import or landing data and associated information as possible, and submit specified information to the Commission each year.

The Compliance Committee and the Permanent Working Group for the Improvement of ICCAT Statistics and Conservation Measures (PWG) shall review annually the information submitted to the Commission and identify those whose large-scale longline vessels have been fishing tuna and tuna-like species in a manner which diminishes the effectiveness of ICCAT conservation and management measures.

## SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND BLUEFIN TUNA

The Commission shall request those Contracting and non-Contracting Parties/entities or fishing entities identified to take all necessary measures so as not to diminish the effectiveness of ICCAT conservation and management measures, including, if appropriate, the revocation of vessel registration or fishing licences of the large-scale longline vessels concerned.

### ANNEX 2: CURRENT BINDING MANAGEMENT RECOMMENDATIONS AND NON-BINDING RESOLUTIONS ADOPTED BY ICCAT FOR THE CONSERVATION OF BLUEFIN TUNA

by J. Lynham and A. Barreira

#### Current binding management recommendations

- ***Bluefin Tuna size limit and fishing mortality – entered into force on 10 August 1975***

**Entire Atlantic** – the Contracting Parties to take the necessary measures to prohibit any taking or landing of Bluefin Tuna weighing less than 6.4 kg. Contracting Parties may grant tolerances of 15% of the number of fish per landing (or its equivalent weight) of the total Bluefin Tuna catch for boats whose catch incidentally includes Bluefin Tuna.

**Entire Atlantic** – As a preliminary step, Contracting Parties actively fishing for Bluefin Tuna or those that incidentally catch it in significant quantities shall take the necessary measures to limit the fishing mortality of Bluefin Tuna to recent levels for a period of one year.

- ***Fishing mortality in East Atlantic – entered into force on 20 July 1982***

**East Atlantic** (i.e. includes Mediterranean) – Contracting Parties actively fishing for Bluefin Tuna or those that incidentally catch it in significant quantities shall take the necessary measures to limit the fishing mortality of Bluefin Tuna to recent levels indefinitely.

- ***Supplementary management measures concerning Bluefin Tuna size limit 1992***

**West Atlantic** – No more than 8% of the total catch to weigh less than 30 kg (or 115 cm FL). This Recommendation implemented by Canada, Japan and USA, only.

- ***Bluefin Tuna statistical document (BFTSD) programme – entered into force on 25 July 1993***

**Entire Atlantic** – (Frozen and fresh Bluefin Tuna products) All Contracting Parties to require that all Bluefin Tuna imports are accompanied by an ICCAT BFTSD which meets the relevant requirement (to include country issuing the document, name of the exporter and the importer area of harvest of the fish in the ship, gear used to catch the fish, type of product and total weight and the point of export). This must be validated by a government official of the flag State of the vessel that harvested the tuna (not required after 1 December 1994 for fresh Bluefin Tuna).

- ***Closed season in the East Atlantic – entered into force on 31 May 1994***

During the period from 1 to 31 July there is a prohibition on large pelagic longline fishing vessels greater than 24m in length fishing for Bluefin Tuna in the Mediterranean. “Length” means: i) for any fishing vessel built after 18 July 1982, 96% of the total length at 85% of the least-moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the water line on which this length is measured shall be parallel to the designed waterline, or ii) for any fishing vessel built before 18 July 1982, registered length as entered on the national register or other record of vessels.

Contracting Parties whose nationals have been fishing for Bluefin Tuna in the Mediterranean using large pelagic longline fishing vessels greater than 24 m in length to take steps to implement this recommendation before 1 June 1994 in accordance with the regulatory procedures of each country.

**SLIPPING THE NET: SPAIN'S COMPLIANCE WITH ICCAT RECOMMENDATIONS FOR SWORDFISH AND BLUEFIN TUNA**

- ***Bluefin Tuna catch limits in the eastern Atlantic Ocean and the Mediterranean Sea – entered into force on 2 October 1995***

**Eastern Atlantic and Mediterranean** – Contracting Parties fishing Bluefin Tuna in the eastern Atlantic and Mediterranean Sea shall take the following conservation measures regarding Bluefin Tuna:

- take the necessary measures to prevent any increase in the fishing mortality rate for the years 1995 and beyond;
  - take the necessary measures to prevent any catch by vessels under their jurisdiction in 1995 in excess of the level of catch in 1993 or 1994 (whichever is higher);
  - starting in 1996, to reduce by 25% (or such lower amount that may be specified by the SCRS) their catches from the 1993 or 1994 catch level, with such reduction to be accomplished by the end of 1998;
  - co-operate in the development by 1998 of a long-term recovery plan for Bluefin Tuna in the eastern Atlantic and Mediterranean;
  - comply with the Contracting Parties obligations to implement the 1974 recommendation to take the necessary measures to prohibit the taking and landing of any Bluefin Tuna weighing less than 6.4 kg;
  - take all necessary measures to prevent catches of age 0 fish (<1.8 kg);
  - report annually to ICCAT on the implementation of the above measures;
  - provide sufficient data to SCRS to improve stock assessment;
  - inform all non-Contracting Parties and the GFCM of the recommendation and request their co-operation.
- ***Supplementary management measures on East Atlantic Bluefin Tuna concerning the Mediterranean closed season – entered into force on 4 August 1997***

Prohibition on purse seine fishing during the period 1 to 31 August. Prohibition of the use of aeroplanes or helicopters supporting fishing operations in the Mediterranean during the month of June.

- ***Supplementary Management measures concerning age 0 Bluefin Tuna – entered into force on 4 August 1997***

**Entire Atlantic** – prohibition of retaining on board, landing and sale of age 0 fish (<1.8 kg) by fishing vessels of Contracting Parties and non-Contracting Parties.

- ***Recommendation regarding compliance in the Bluefin Tuna fishery – entered into force on 4 August 1997***

**Entire Atlantic** – Starting in 1997, each Contracting Party whose landings as provided by the Task 1 data, exceed its catch limit will explain to the Compliance Committee how the over-harvest occurred, and the actions already taken or to be taken to prevent further over-harvest.

If in the applicable management period, beginning in 1997, any Contracting Party exceeds its catch limit, its catch limit in the next subsequent management period will be reduced by 100% of the amount in excess of such catch limit and ICCAT may authorize any other appropriate actions.

If any Contracting Party exceeds its catch limit during any two subsequent management periods, the Commission will recommend appropriate measures which may include, but are not limited to, reduction in the catch limit equal to a minimum of 125% of the excess harvest and if necessary, trade restrictive measures. Any trade measures under this paragraph will be import restrictions on the subject species and consistent with each Party's international obligations.

- ***Recommendations to improve compliance with minimum size limit regulations – entered into force on 13 June 1998***

**Entire Atlantic** – Contracting Parties to implement immediately measures to ensure the monitoring and enforcement of the minimum size regulations for ICCAT stocks.

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Each Contracting Party whose harvest of any ICCAT stock exceeds the specified minimum size tolerance level adopted by the Commission shall explain to the Compliance Committee: the magnitude of the over-harvest; domestic measures implemented to avoid further over-harvest; monitoring of compliance with domestic measures; any other actions to be taken to prevent further over-harvest.

Beginning at the 2000 Commission Meeting, if any Contracting Party's actions have failed to prevent further over-harvest, the Commission may recommend measures to reduce harvest of undersized fish which may include, but are not limited to, time and area closures, assignment of small fish quotas and/or gear restrictions.

- ***Supplement to the supplementary management measure concerning age 0 Bluefin Tuna – entered into force on 13 June 1998***

In addition to the prohibition on retaining on board, landing and sale of age 0 Bluefin Tuna (<1.8 kg) by fishing vessels of Contracting Parties and non-Contracting Parties, entities or fishing entities, each Contracting Party and non-Contracting Party, entity or fishing entity, shall take the necessary measures to prohibit the landing, possession or sale in markets in nations bordering the Convention area of Atlantic Bluefin Tuna of age 0 (<1.8 kg).

- ***Recommendation amending the "Recommendation on Bluefin Tuna catch limits in the eastern Atlantic Ocean and Mediterranean Sea" and the "Recommendation on supplementary management measures concerning age 0 Bluefin Tuna"- entered into force on June 21, 1999.***

The minimum size catch prohibition of 0 age fish less than 1.8 kg and prohibition of retaining on board, landing and sale of age 0 fish (< 1.8 kg) by fishing vessels of Contracting Parties and non-contracting parties has been replaced by "fish less than 3.2 kg".

Although there is no reference to the supplementary management measure concerning age 0 Bluefin Tuna, it can be understood as a logical follow-up that necessary measures should be adopted to prohibit the landing, possession or sale in markets in nations bordering the Convention area of Atlantic Bluefin Tuna of age 0 (< 3.2 kg).

- ***Recommendation on the limitation of catches of Bluefin Tuna in the eastern Atlantic and Mediterranean - entered into force on 21 June 1999.***

This established a TAC of 32 000 t for 1999 and of 29500 t for 2000.

In order to establish an allocation of fishing possibilities, the catches of years 1993 and 1994 (whichever is higher), as laid down by SCRS before 1998, should be used as reference, except in the case of Croatia, for which a specific quota is set for 1999. With respect to these catch data, as revised by SCRS in 1998, quantities to be deducted from 1999 catch quotas under the terms of the ***Recommendation regarding compliance in the Bluefin Tuna fishery*** shall be calculated for all Contracting Parties.

The following allocation scheme (in tonnes: t) has been established:

Countries	1999	2000
China (People's Republic of)	82	76
Croatia	950	876
European Community	20 155	18 590
Japan	3199	2949
Korea	672	619
Libya	1300	1199
Morocco	820	756
Tunisia	2326	2144

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The provisions of this recommendation replace the 1995 "Recommendation by ICCAT on supplementary management measures for eastern Atlantic Bluefin Tuna" which provided a number of exceptions for France.

For those non-Contracting Parties, entities or fishing entities with catches of Bluefin Tuna in the East Atlantic (i.e. including the Mediterranean Sea) from 1993 onwards, the catch limit for 1999 and 2000 will be calculated according to reference to the catches of years 1993 and 1994 (whichever is higher), as laid down by SCRS before 1998.

- ***Recommendation concerning the changes of closed season for the purse seine fishery fishing for Bluefin Tuna in the Mediterranean Sea - entered into force on 21 June 1999.***

Prohibition on purse seine fishing in the Adriatic Sea during the period from 1-31 May, in order to protect juveniles.

Prohibition on purse seine fishing in other areas of the Mediterranean Sea during the period 16 July-15 August in order to protect juveniles.

- ***Recommendation on validation of the Bluefin Tuna statistical document by the European Community - entered into force on 21 June 1999.***

It establishes specific measures for Member States of the European Community to improve transparency of information in relation to the origin of the catches and trade of Bluefin Tuna in the Mediterranean.

- ***Supplementary Recommendation regarding compliance in the Bluefin Tuna - entered into force on 21 June 1999.***

Any quota/catch limit that has not been used (if specified in the relevant management recommendation) and excess produced in relation with the annual quota are to be subtracted or added, as appropriate, to the respective quota/catch limit during or before the adjustment year, as set forth below, for Atlantic and Mediterranean Bluefin Tuna:

Harvesting year	Adjustment year
1997	1999
1998	2000

- ***Recommendation on application of three compliance recommendations-entered into force on 21 June 1999*** (The three recommendations referred to are: "ICCAT Recommendation on implementation of ICCAT Recommendation regarding compliance of the North Atlantic Bluefin Tuna and Swordfish Fishery", "ICCAT Recommendation regarding compliance of the South Atlantic Swordfish Fishery" and "ICCAT Recommendation to improve compliance with Minimum Size Regulations".)

Each Contracting Party shall include in its National Reports a completed "ICCAT Reporting Table" for each of its applicable fisheries (the recommendation attaches a model table for reporting 1997). The tables shall be completed each year with the catch statistics submitted to the SCRS for the current reporting year and any revisions for previous years' data.

Each Contracting Party shall report the information presented in its ICCAT Reporting Tables, including a detailed explanation of any exceeding total catch limit and/or of minimum size tolerance levels, the actions already taken, or to be taken to prevent further over-harvest, and the dates by which such actions will be taken.

Annually, after all Contracting Parties have reported, in compliance with the previous paragraph, the Compliance Committee, with the assistance of the ICCAT Secretariat, shall prepare and distribute to Contracting Parties a "Compliance Annex" that includes: (1) all catch limits and minimum sizes/tolerance to which each Contracting Party is subject; (2) each Party's catch statistics submitted to the SCRS for the current reporting year, and any revisions to previous year's data; (3) any over-harvests and under-harvests; (4) all catch limit reductions shall be taken. The Compliance Annex will be attached to the Compliance Committee Report.

**Current non-binding resolutions adopted by ICCAT for the conservation of Bluefin Tuna**

- ***Resolution concerning the unreported and unregulated catches of tunas by large-scale longline vessels in the Convention area- adopted at the 11th Special Meeting of the Commission, November 1998 and transmitted to the Parties on 22 December 1998***

The Commission shall request the Contracting Parties, Cooperating non-Contracting Parties, entities or fishing entities which import frozen tunas and tuna-like fish products or which those products are landed to collect and examine as much import or landing data and associated information as possible and submit a specified information to the Commission each year.

The Compliance Committee and the Permanent Working Group for the Improvement of ICCAT Statistics and Conservation Measures (PWG) shall review annually the information submitted to the Commission and identify those whose large-scale longline vessels have been fishing tuna and tuna-like species in a manner which diminishes the effectiveness of the ICCAT conservation management measures.

The Commission shall request those Contracting and non-Contracting Parties/entities or fishing entities identified to take all necessary measures so as not to diminish the effectiveness of ICCAT conservation and management measures, including, if appropriate, the revocation of vessel registration or fishing licences of the large-scale longline vessels concerned.

**ANNEX 3: CURRENT EU REGULATIONS RELATED TO ICCAT RECOMMENDATIONS FOR FISHERIES OF SWORDFISH AND BLUEFIN TUNA**

by J. Lynham and A. Fabra

**Core regulations**

- ***Council Regulation (EEC) No. 101/76 of 19 January 1976 laying down a common structural policy for the fishing industry*** (OJ (Official Journal) L 20, 28 January 1976)

The significance of this early Regulation is that in Article 4 it established the legal basis for conservation measures in the field of fisheries in the European Economic Community (EEC). Article 4 states “where there is a risk of over-fishing of certain stocks in the waters of Member States, the Council acting...on a proposal from the Commission may adopt the necessary conservation measures. In particular, these measures may include restrictions on the catching of certain species, to areas, to fishing seasons, to methods of fishing and to fishing gear”.

*Council Regulation (EEC) No. 101/76* entered into force on 1 February 1976.

- ***Council Regulation (EEC) No. 3760/92 of December 1992 establishing a Community system for fisheries and aquaculture*** (OJ L 389, 31 December 1992)

This Regulation replaces and repeals *Council Regulation (EC) No. 170/83*, which was the first basic Regulation establishing the conservation policy and which represented the fulfilment of the CFP. *Council Regulation (EC) No. 3760/92* explicitly recognized that structural policy and conservation policy were closely interrelated and established a framework for the conservation and management of resources covered by the CFP. The Regulation “establishes a framework for the Regulation of access, management and monitoring of exploitation activities, as well as the requisite means and procedures” (Article 2). Provision is made for the Council to set quantitative limits on catches (TACs and quotas), set the minimum size or weight of individuals that may be caught and lay down technical measures regarding fishing gear and its method of use. In other words, the purpose of this Regulation is not the setting of specific limits or restrictions but the establishment of the framework within which to do so.

*Council Regulation (EC) No. 3760/92* entered into force on 1 January 1993.

- **Council Regulation (EC) No. 894/97 of 29 April 1997 laying down certain technical measures for the conservation of fishery resources** (OJ L 132, 23 May 1997).

This Regulation repeals its predecessor (**Council Regulation (EEC) No. 3094/86**) and codifies and clarifies the various amendments made to it. The main provisions of *Council Regulation (EC) No. 3094/86* relevant to this study were the introduction of mesh sizes (Articles 2 and 3), the establishment of the principle of minimum size of fish and the principle that undersized fish shall not be retained on board or be transhipped, landed, transported, stored, sold, displayed or offered for sale, but shall be returned immediately to the sea (Article 5). One point that should be noted is that this Regulation did not apply to the Mediterranean. Regulation (EC) No. 3094/86 entered into force on 14 October 1986.

Article 11 of *Council Regulation (EC) No. 894/97* bans the use of drift-nets over 2.5 km total length in all Community waters except in the Baltic Sea. Article 12 goes further and states that no vessels shall use drift-nets for catching tuna in Spanish or Portuguese waters in ICES areas VIII, IX or X or in Spanish waters in Cefac areas off the Canary Islands. The Regulation entered into force on 23 May 1997.

- **Council Regulation (EC) No. 1239/98 of 8 June 1998 amending Regulation (EC) No. 894/97 laying down certain technical measures for the conservation of fishery resources**

This Regulation extends *Regulation 894/97* and prohibits from 1 January 2002 the use of drift-nets for the capture for species in Annex I, which include Swordfish and Bluefin Tuna. From the same date it is also prohibited to land any Swordfish or Bluefin Tuna caught by drift-net. Until 31 December 2001, any vessel wishing to keep one or more drift-nets on board must receive authorization from the relevant authorities in the flag Member State. Each Member State must then communicate to the European Commission for each year the list of vessels authorized to carry drift-nets.

There are also several technical provisions that attach to the use of drift-nets, such as constant observation. Also, all the details relating to the use of the drift-net shall be recorded in the logbook and a declaration of the quantities landed and the catch dates and zones shall be forwarded to the authorities of the Member States. Also, the authorities must be notified of any landings of catches using drift-nets at least two hours before arrival.

This Regulation applies to all Community waters and entered into force on 24 June 1998, applicable from 1 July 1998.

#### Control regulations

- **Council Regulation (EEC) No. 2847/93 of 12 October 1993 establishing a control system applicable to the Common Fisheries Policy** (OJ L 261, 20 October 1993)

This Regulation was adopted as the previous control *Regulation 2241/87* showed that there was “a need to strengthen control of the application of the rules governing conservation of fisheries resources”. *Regulation 2241/87* is effectively repealed by this Regulation, except for Article 5 that states that only species subject to TACs must be recorded in the logbook. This measure will remain in force until a list of species is drawn up pursuant to Article 6(2) of *Regulation 2847/93*.

This Regulation establishes a Community system of control including provisions for the technical monitoring of conservation and resource management measures, structural measures and provisions relating to the effectiveness of sanctions for violations of the Regulations. In accordance with the principle of subsidiarity, the responsibility for control is explicitly given to Member States by Article 1(2). (Subsidiarity is the principle whereby decisions should be taken and enforced as closely as possible to the citizen wherever possible i.e. by national or local governments as opposed to by the European Community (Wetherill and Beaumont, 1993).) This is expanded upon by Article 2 which lists the various ways that this control should be carried out: inspection of fishing vessels, inspection of the activities of landing, selling, transporting and storing fish and recording landings and sales.

Article 6 requires logbooks to be kept by Member State vessels over 10 m fishing for stocks subject to TACs or quotas and requires records to include the number of individuals caught and the type of gear used. A declaration must be

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submitted to the authorities indicating the quantities of each stock caught. Any sales not from the first auction must be reported to the Community, containing information on the size/weight of fish, quantity of each species caught and where and when it was sold, amongst other information. It is the responsibility of the Member States to ensure that all landings of stocks subject to TACs or quotas are recorded and for this purpose they may require that the first sale be by public auction (Article 14). Information on catches of fish subject to TACs should be transmitted to the Community monthly, including any information on transshipments and details of where the catches were made (Article 15).

Once a quota or a TAC for a stock has been exhausted, the fishery is then closed and it is prohibited for any more fish from that stock to be caught (Article 21). Article 2 provides that where it has been established by the Commission that a Member State has over-fished its quota of the TAC, the Commission shall operate deductions from the annual quota of the Member State which has over-fished. On making such deductions, any previous cases of over-fishing of the same stock and the biological status of the stock concerned shall all be taken into account. This is amplified in *Regulation 847/96* (see below).

Article 29 provides for Community inspectors to verify the implementation of control programmes by Member States. Title VIII then deals with measures to be taken in the case of non-compliance with the rules in force. Article 31 states that Member States shall ensure that the appropriate measures are taken, including administrative action or criminal proceedings, in conformity with their national law against the natural or legal persons responsible where the Common Fisheries Policy has not been respected, in particular following a monitoring or inspection carried out pursuant to this Regulation. The national law which is adopted should be capable of effectively depriving those responsible of the economic benefit of the infringements or of producing results proportionate to the seriousness of such infringements, effectively discouraging further offences of the same kind.

The sanctions provided for are fines, seizures of prohibited fishing gear and catches, sequestration of the vessel, temporary immobilization of the vessel, suspension of the licence or withdrawal of the licence, depending on the gravity of the offence (Article 31). Member States shall notify the Commission of any laws, regulations or administrative provisions adopted by them in order to prevent and prosecute irregularities (Article 34).

As far as the Mediterranean is concerned, Member States are exempted from applying the provisions relating to logbooks and declarations of landings to the Community authorities until 1 January 1999.

*Regulation 2847/93* entered into force on 1 January 1994.

- ***Council Regulation (EC) No. 858/94 of 12 April 1994 introducing a system for the statistical monitoring of trade in Bluefin Tuna within the Community*** (OJ L 99, 19 April 1994)

This Regulation essentially implements the ICCAT Bluefin Tuna Statistical Document Programme (in force since 25 July 1993) into Community legislation. However, this Regulation requires that not only are imports of Bluefin Tuna recorded, but also catches by Community vessels. The information recorded must include the name of the vessel/producer, the place of the catch, the fishing gear used, the quantity -including discards-, the signature of the master of the vessel/producer. Where these measures are not complied with, the provisions Article 31 of *Regulation 2847/93* shall apply, with the responsibility being on Member States to monitor compliance and to take action in the form of fines, sequestration or temporary immobilization of the vessel and suspension or withdrawal of the licence to fish.

*Regulation 858/94* entered into force on 1 July 1994.

- ***Council Regulation (EC) No. 1351/99 of 21 June 1999, laying down certain control measures to ensure compliance with the measures adopted by ICCAT*** (OJ L 162, 26 June 1999).

In order to comply with recommendations adopted by ICCAT at its ordinary meeting of November 1997 on transshipments and vessel observations, this Regulation requires Member States to inform the Commission about any observations of fishing activities of species within the competence of ICCAT by vessels flying the flag of another contracting party or flying the flag of a non-contracting party which appear to be fishing contrary to ICCAT's conservation measures; or by vessels the nationality of which is not apparent and that appear to be fishing for species within the competence of ICCAT.

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The Regulation entered into force on 2 August 1999 and imposes a general obligation for Member States to record in an observation form, provided in its Annex I, as much information as possible on such activities and to transmit it without delay to the observer's Member State. Member States shall forward these forms to the Commission without delay, and the latter shall transmit them to the flag country of the vessel in question and to the ICCAT Secretariat. Article 5 establishes that Community fishing vessels may not receive transshipments at sea of species falling within ICCAT's competence from vessels flying the flag of a non-contracting party that does not have the status of a co-operating party, entity or fishing entity. Before the beginning of each year the Commission shall send Member States a list of co-operating parties, entities or fishing entities.

- ***Council Regulation (EC) No. 1446/99 of 24 June 1999, amending Regulation (EC) No. 858/94 introducing a system for the statistical monitoring of trade in Bluefin Tuna within the Community*** (OJ L 167, 2 July 1999).

In accordance with ICCAT Recommendations approved at its 1997 ordinary meeting, this Regulation extends the statistical monitoring system established in *Regulation 858/94* to re-exports of Bluefin Tuna. It provides a model re-export licence which needs to accompany, duly completed, signed and authenticated, all quantities of Bluefin Tuna re-exported to or from the Customs territory in question.

The Regulation entered into force on 2 July 1999.

### Core regulations applicable in the Mediterranean

- ***Council Regulation (EC) No. 1626/94 of 27 June 1994 laying down certain technical measures for the conservation of fishery resources in the Mediterranean*** (OJ L 171, 6 July 1994)

This is the first Regulation that deals specifically the Mediterranean, there having been no regulation of conservation and management of fisheries in the Mediterranean at Community level previously, as the circumstances are particular to the area. The aim of the Regulation is to introduce a harmonized management system and to establish a common policy for the management and exploitation of Mediterranean fish stocks. The main provisions of this Regulation are the establishment of general restrictions relating to gear type (Article 5), minimum mesh sizes (Article 6) and specification of minimum sizes for species caught in the Mediterranean (Article 8).

In the Mediterranean, the minimum size specified for Bluefin Tuna is 70 cm fork length (FL) or 6.4 kg and for Swordfish 120 cm lower jaw-fork length (LJFL).

The Regulation entered into force on 1 January 1995.

- ***Council Regulation (EC) No. 1075/96 of 10 June 1996 amending Regulation (EC) No. 1626/94 laying down certain technical measures for the conservation of fishery resources in the Mediterranean*** (OJ L 142, 15 June 1996)

This Regulation, which entered into force on 22 June 1996, adds the prohibition on fishing Bluefin Tuna using surface longlines from vessels greater than 24 m in length during the period from 1 June to 31 July each year. This measure is consistent with the ICCAT Recommendation to the same effect that was adopted on 31 May 1994.

- ***Council Regulation (EC) No. 782/98 of 7 April 1998 amending Regulation (EC) No. 1626/94 laying down certain technical measures for the conservation of fishery resources in the Mediterranean*** (OJ L 11, 15 April 1998)

This Regulation entered into force on 16 April 1998 and adds the prohibition on fishing for Bluefin Tuna with purse seiners between 1 and 31 August and the prohibition on using aeroplanes or helicopters in support of fishing operations for Bluefin Tuna between 1 and 30 June. This implements the ICCAT Recommendations adopted in November 1996.

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In addition, 15% tolerance limit for catches is introduced for Bluefin Tuna caught accidentally which brings the *Regulation 1626/94* in to line with the ICCAT Recommendation. However, the 15% tolerance in the EU Regulation only applies to Bluefin Tuna in the Mediterranean whereas the ICCAT Recommendation applies to Bluefin Tuna and Swordfish in the entire Atlantic.

- **Council Regulation (EC) No. 49/1999 of 18 December 1998 fixing, for certain stocks of highly migratory fish, the total allowable catches for 1999, their distribution quotas to Member States and certain conditions under which they may be fished** (OJ L 013, 18 January 1999)

Although not specific for the Mediterranean, this Regulation prohibits the taking of Bluefin Tuna with an encircling net between 1 and 31 May in the Adriatic and between 16 July and 15 August in the rest of the Mediterranean (derogating Article 3a of *Regulation 1626/94* on certain technical measures for the conservation of fishery resources in the Mediterranean).

- **Council Regulation (EC) No. 1448/1999 of 24 June 1999 introducing transitional measures for the management of certain Mediterranean fisheries and amending Regulation (EC) No. 1626/94** (OJ L 167/7, 2 July 1999)

*Regulation 1626/94* established certain exceptions to the implementation of technical measures for the conservation of fisheries in the Mediterranean until 31 December 1998. *Regulation 1448/99* extends such exceptions until 31 May 2000, arguing that such technical measures are altering fishing activities of many fishers in the Mediterranean and that scientific evidence submitted by interested Member States indicates that maintaining such exceptions would have little impact upon these resources. Article 2 establishes that before 1 February 2000, Member States shall provide the Commission with all scientific information available on the impact of fishing activities carried out in accordance with articles 3.1 and 6.1 of *Regulation 1626/94*, in order to assess whether such activities may be continued or not.

The Regulation entered into force on 25 June 1999.

### Regulations relating to TACs and quotas

- **Council Regulation (EC) No. 847/96 of 6 May 1996 introducing additional conditions for year-to-year management of TACs and quotas** (OJ L 115, 9 May 1996)

Article 5(2) of this Regulation provides for deductions to be made from quotas in respect of over-fishing of certain stocks, on the basis of their biological status. Article 4 of *Regulation 65/98* (see below) identifies Swordfish and Bluefin Tuna as stocks to which these deductions should apply. The deductions to be made from the various quotas are as follows:

Extent of the over-fishing relative to the permitted landings	Deduction
The first 10%	Over-fishing x 1.00
The next 10% up to 20% in total	Over-fishing x 1.10
The next 20% up to 40% in total	Over-fishing x 1.20
Any further over-fishing greater than 40%	Over-fishing x 1.40

An additional three per cent of the quantity fished in excess of permitted landings shall be deducted for each successive year in which permitted landings are over-fished by more than 10%.

Article 3 and 4 of this Regulation do not apply to Bluefin Tuna (see *Council Regulation (EC) No. 65/98* Article 4).

*Council Regulation (EC) No. 847/96* entered into force on 1 January 1997 (Article 5 only applies from 1 January 1998).

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- ***Council Regulation (EC) No. 65/98 of 19 December 1997 fixing for certain stocks of highly migratory fish, the total allowable catches for 1998, their distribution in quotas to Member States and certain conditions under which they may be fished*** (OJ L 12, 19 January 1998)

This is the most recent Regulation on TACs that is relevant to this study which, pursuant to *Council Regulation (EC) No. 3760/92*, fixes quotas for Swordfish and Bluefin Tuna for 1998. This is a result of the ICCAT Recommendations for the same stocks.

The 1998 Spanish quota for Bluefin Tuna set by the EU for the eastern Atlantic was 3809 t, the total for the EU being 4452 t. The Spanish quota for the Mediterranean for Bluefin Tuna in 1998 was 2033 t, the total for the EU being 11 621 t.

The Spanish quota for Swordfish in the North Atlantic set by this Regulation was 4537.5 t for 1998. The total TAC of 11 000 t adopted by ICCAT for all nations is also endorsed.

This Regulation also states that Swordfish and Bluefin Tuna are species to which the deductions listed in Article 5(2) of *Regulation 847/96* should apply (see above).

*Regulation 65/98* entered into force on 26 January 1998, applying from 1 January 1998.

- ***Council Regulation (EC) No. 1283/98 of 16 June 1998 amending Regulation 65/98 fixing, for certain stocks of highly migratory fish, the total allowable catches for 1998, their distribution in quotas to Member States and certain conditions under which they may be fished*** (OJ L 178, 23 June 1998)

This Regulation adds a quota for Swordfish in the South Atlantic for Spain of 5848 t, following the ICCAT meeting in November 1997.

*Regulation 1283/98* entered into force on 30 June 1998 and applies from 1 January 1998.

- ***Council Regulation 49/99 of 18 December 1998 fixing, for certain stocks of highly migratory fish, the total allowable catches for 1999, their distribution quotas to Member States and certain conditions under which they may be fished*** (OJ L 013, 18 January 1999)

This sets the catch limits and quotas for 1999 for Bluefin Tuna in the Atlantic and the Mediterranean and for Swordfish in the Atlantic; establishes additional requirements for Member States on recording and notification of catches on fishing activities previously exempted from recording and reporting obligations; it rules out the application of provisions on deductions for quantities over-fished established in *Regulation 847/96* in order to make the system compatible with ICCAT rules; it reduces the minimum size for Bluefin Tuna to 3.2 kg, and prohibits the taking of Bluefin Tuna with an encircling net between 1 and 31 May in the Adriatic and between 16 July and 15 August in the rest of the Mediterranean (thus derogating Article 3a of *Regulation 1626/94*).

The Regulation entered into force on 25 January 1999 and was applicable from 1 January 1999.

In 1999, the Spanish quota for Bluefin Tuna set by this Regulation is 5555 t.

### General provisions

- ***Council Decision of 26 June 1997 concerning the objectives and detailed rules for restructuring the Community fisheries sector for the period from 1 January 1997 to 31 December 2001 with a view to achieving a balance on a sustainable basis between resources and their exploitation*** (OJ L 175, 3 July 97)

Article 2 of this Decision, addressed to all Member States, requires that the fishing effort for stocks described as over-fished shall be reduced by 20% by 31 December at the latest. In the Celtic Sea, Eastern Channel, Bay of Biscay, Iberian

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Peninsula and Mediterranean Sea, both Swordfish and Bluefin Tuna are described as over-fished, the definition of which is “moderate to substantial gains in long-term yield if effort is decreased; if heavily over-fished, medium-term risk of spawning stock biomass falling below minimum biological acceptable levels” (Annex I of the Regulation).

This Decision also requires all Member States to submit to the Commission a fishing effort limitation programme. Any failure to do so will result in the reduction targets being achieved by reductions in capacity.

This Decision applied from 1 January 1997.

### ANNEX 4: SPANISH LEGISLATION REGULATING SWORDFISH AND BLUEFIN TUNA FISHERIES

by V. Gascón and A. Barreira

#### General regulations

The general provisions regulating the conservation of fishery resources are contained in the *Royal Decree 681/1980* of 28 March 1980 (*Boletín Oficial del Estado (BOE)* 92: 8204). Even though this regulation was enacted before Spain became part of the European Community, its provisions are still binding and are in accord with the general objectives of the CFP. The decree aims at managing the fishing effort in waters “under Spanish jurisdiction” (Article 1), in order to avoid over-exploitation of the resources. Article 2 of this decree empowers the Government to take necessary measures to comply with international fishing agreements (measures such as regulation of fishing gears, number of vessels and their engine power, limiting fishing times and days, etc.)

*Royal Decree 560/1995* of 7 April 1995 (*BOE* 84: 10552) lays down the minimum size of fish for certain species in different fishing areas where the Spanish fleet operates. The preamble of this decree refers to *Council Regulations 3760/92*, *3094/86* and *1626/94*, and refers to the direct applicability of EU Regulations in Spain. The aim of the Regulation is to gather all the applicable rules on this issue in one piece of legislation.

Article 2 of this decree refers to the rules contained in Article 5.2 of *Council Regulation (EEC) 3094/86* for the measuring of the size of the fish. An important provision of this decree is Article 3, which restates the prohibition (contained in *Regulation 3094/86*), to retain on board, tranship, land, transport, store, sell, display or commercialize undersized fish products. It is also important to note that Article 4 of the decree makes special mention of infringements and sanctions, referring to the legislation on breaches of the fishing laws and corresponding sanctions.

The decree contains several annexes that denote authorized minimum sizes for given species in given fishing areas. The following specific rules in the annexes relevant for this study are:

- Minimum size for Bluefin Tuna in the “Cantabrian”, “Northwest” and “Cadiz Gulf” fishing areas is 6.4 kg.
- Minimum size for Bluefin Tuna in the Mediterranean is 6.4 kg or 70 cm.
- Minimum size for Swordfish in the Mediterranean is 120 cm, specifying that the fish is measured from the tip of the lower jaw to the posterior extremity of the shortest caudal ray.
- Minimum size for Bluefin Tuna in the Canary Islands fishing area is 6.4 kg.

This decree entered into force on 9 April 1998.

#### Specific legislation for Bluefin Tuna and Swordfish fisheries

This section describes Spanish pieces of legislation that are relevant to the Swordfish and Bluefin Tuna fisheries and pertinent ICCAT and EU regulations. It is important to note that such regulations are in principle applicable in Spain, even if there is no implementing legislation at national level. The Spanish Government enacts these regulations in order to make the obligations of the Spanish fleet more clear and incorporate these rules into the Spanish “legal culture”. Some Spanish regulations make specific reference to ICCAT, European Council Regulations, or both, in their preambles. Even where a specific ICCAT Recommendation has not been incorporated into a Spanish regulation, this does not mean that the rule is not binding and directly applicable in Spain. However, for the obligation to be enforceable, there is a need to refer to national legislation for appropriate sanctions.

### **Swordfish**

There are several Regulations that apply to surface longline fishing, which is the fishing gear most commonly used for the fishing of Swordfish.

A **Ministerial Order of 18 January 1984** (BOE 51: 5498) regulates surface longline fishing. Fishing permits are strictly granted for this fishing gear, with an obligation to specify the target species. Authorized surface longliners are not allowed to conduct other simultaneous fishing activities using other gears (Article 2), nor are they allowed to carry on board any gear but longlines (Article 7).

The length of longlines and the number of hooks allowed depends on the target species. The Order lays down maximum lengths of longlines and number and size of hooks for each species. For Swordfish, longlines cannot be longer than 60 000 m. and cannot have more than 2000 hooks. Distance between lines with hooks (*brazoladas*) must be at least 28-30 m (Article 5). For Swordfish, the hooks minimum size is  $11.25 \text{ cm} \pm 4.5$  (length) and  $4.8 \pm 1.2$  (width) (Article 6).

Effort is limited by the prohibition to conduct surface longline fishing for an annual average of more than 20 days per month (Article 11). In addition, the Fisheries Administration has the authority to establish further limitations on the number of the vessels that can operate each year in different fishing areas (Article 3).

This legislation entered into force on 1 March 1984.

A **Ministerial Order of 8 January 1993** (BOE 48: 6054) regulates the surface longline fleet operating in international fishing zones. This law creates a special official register for surface longline vessels operating in international waters (*Censo Especial de Buques Palangreros de Superficie de Caladeros Internacionales*). To be so-listed is a prerequisite to be able to conduct longline fishing activities in international waters. In addition, vessels included in that register are not allowed to be listed in any other fishing register (Articles 1 and 3). Furthermore, longline vessels fishing in international waters are not authorized to fish in the Mediterranean Sea (Article 7).

In order to start fishing, vessels that are included in the special register for surface longline vessels operating in international waters also need to obtain a temporary fishing permit. Permits are granted based on an "Annual Fishing Plan" designed by the Fisheries Administration on the basis of partial plans presented by the different fishermen's associations (Article 7). A daily logbook has to be kept and a monthly report must be submitted to the Fisheries Administration, informing of catches for each species, fishing areas, landing sites, etc. (Article 8).

Perhaps, the most remarkable provision of this law is Article 9 that refers explicitly to Swordfish fishing. The provision lays down certain rules for longliners targeting Swordfish in international waters and declares that these rules are based on ICCAT Recommendations. The rules are that:

- In the Atlantic, prohibition of capture and retaining on board or landing of Swordfish weighing less than 25 kg or with a length under 125 cm. There is a 15% tolerance for incidental catches of undersized fish by authorized vessels.
- Surface longline vessels fishing north of 5° N not targeting Swordfish have an undersized fish tolerance of only 10% of the total weight of the catch. On the other hand, Annual Fishing Plans will be drafted taking into account that the mortality of fishes weighing more than 25 kg. cannot exceed 85% of mortality incurred in 1988 in the area north of 5° North. The Fishing Plans will also bear in mind that, in the whole Atlantic, the fish mortality will be limited to 1998 levels.
- An important paragraph of this Article concludes that, in general, Swordfish fishing in international waters will be conducted following the rules laid down by any other ICCAT Recommendation published either in the *BOE* or in the European Communities Official Journal. Consequently, this provision incorporates all ICCAT Swordfish Recommendations into the regulatory framework for Spanish longliners fishing in international waters. This Order entered into force on 26 February 1993.

The **Ministerial Order of 6 November 1995** (*BOE* 272: 32830) regulating the activities of the Spanish fleet fishing for Swordfish refers expressly to the Recommendation made by ICCAT in 1994 for Swordfish quotas in the area North of 5° N, which also regulates the fishing effort South of that latitude. The Order regulates fishing for Swordfish regardless of the operation area. Article 2 of the Order restates the prohibition for one vessel to be operating both in international and national fishing areas. Special permits will be granted for Swordfish fishing, based on Annual Fishing Plans prepared by the Fisheries Administration. These Annual Plans will be based on partial plans submitted by fishermen associations of vessels greater than 15 m. in length. The Annual Fishing Plan will be applicable to any vessel greater than 15 m. in length and it will determine the fishing effort of each vessel or fishermen's association, according to the concepts of "fishing time" and "catch quotas" (Article 3). The Order also establishes reporting obligations about the operations and captures of the vessels (Article 4). In addition, the Order details relevant ICCAT Swordfish catch quotas for the Spanish fleet for 1995 and 1996 and reiterates the prohibition of catching Swordfish smaller than 125 cm length or weighing less than 25 kg. It also includes the tolerance limit of 15% for undersized fish as incidental catch.

This Order entered into force on 15 November 1995.

#### **Bluefin Tuna**

A **Ministerial Order of 3 March 1975** regulating tuna fishing in ICCAT areas prohibits the catching of Bluefin Tuna weighing less than 6.4 kg. The rule allows for an incidental catch of 15% of undersized fish, per landing, per ship. This tolerance applies also when the total weight of undersized fish is not larger than 15% of the total capture weight. In spite of its early date of enactment, this regulation remains in force unless it contradicts any more recent legislation. The **Royal Decree of 7 April 1995**, on minimum fish size for certain species, is more recent than this regulation and lays down the same minimum size for Bluefin Tuna but without including the tolerance provision. Therefore, although the Royal Decree does not repeal the Order of 3 March 1975, the latter would become ineffective (and it could be declared void by any Spanish Court) if a new ICCAT Recommendation or a EU Regulation were to include requirements incompatible with it.

A **Ministerial Order of 28 February 1994** (*BOE* 57: 1908) regulates fishing for Bluefin Tuna in the central North Atlantic and implements the ICCAT Recommendation of 12 November 1993, which stipulated a catch limit for Japan in that area during the period 1994-1995. The Recommendation prohibited any new fishing activities by other ICCAT Contracting Parties during that period and, accordingly, the Order served to forbid any Bluefin Tuna fishing by the Spanish fleet in the Atlantic Ocean, North of 40° N, between 35° W and 45° W, during 1994-95.

This Order entered into force on 9 March 1994.

A **Ministerial Order of 17 February 1998** (*BOE* 49: 1226) regulates fishing for tuna-like species in the Atlantic Ocean north of 36° N and implements the 1994 ICCAT Recommendation that called for a 25% reduction of the catches of Bluefin Tuna from the 1993/1994 level. The preamble of the Order states that this reduction applies to any country that harvests Bluefin Tuna in the eastern Atlantic and Mediterranean and also specifies certain conditions applying to fishing of the relevant species. It also refers to *Council Regulation (EC) No. 65/98* of 19 December 1997 which fixed the TACs for certain stocks of highly migratory fish for 1998 and the distribution of quotas to Member

In order to limit fishing efforts, the Order states that fishers' associations should propose a "Partial Fishing Plan" by 15 May of each year. Based on these plans, the Fisheries Resources Directorate General then develops an "Annual Plan" for the fishing activities in that area. The Annual Plan might establish restrictions on operations by limiting fishing days or by imposing quotas (Article 2). Authorization for the fishing activities for specific vessels is then granted by the Fisheries Resources Directorate General, based on the contents of the Annual Plan. The Order sets out the requirements, including information on fishing gears, duration of operations, targeted species and fishing areas, that applicants need to fulfill in order to be eligible for authorization. Applicants must be enrolled in an official register, the *Censo de la Flota Pesquera Operativa*, in order to be authorized. According to the Order (Article 3), only the following gears are allowed for capture of tuna-like species: *curricán a la cacea* and *cañas con cebo vivo*. The first type of gear uses two big poles located on each side of the vessel and from which a series of lines hang and run parallel to the bottom of the sea. Each line has one or more secondary lines with hooks. The second is a pole and line with live bait.

Article 4 of the Order provides for the possibility of suspending authorization if established fishing periods are exceeded

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or quotas exhausted. Fishers are obliged to report monthly to the Fisheries Resources Directorate General, presenting information on fishing days and total capture for each species in each area, according to guidelines included in the Annex of the Order. Fishers should also report each fish landing, indicating the number of individuals of tuna-like species landed, the fishing areas where they were harvested, and the means of sale (Article 5).

This law entered into force on 27 February 1998.

A **Ministerial Order of 22 June 1999** (BOE 156) extends the applicability of the Order of 13 April 1998 on the Bluefin Tuna catches registry for the Mediterranean until 31 December 1999. This law entered into force on 2 July 1999.

### ***Spanish Swordfish and Bluefin Tuna fisheries in the Mediterranean***

The **Ministerial Order of 8 March 1999** regulates surface longline fishing in the Mediterranean. Authorized surface longliners are not allowed to conduct simultaneous fishing activities using other gears, nor are they allowed to carry on board any other gears but longlines (Article 6). The length of longlines and the number of hooks allowed depends on the target species. This law lays down maximum lengths of longlines, and the number and size of hooks allowed, by species. For Swordfish, longlines cannot be longer than 60 000 m and cannot have more than 2000 hooks (as established in Ministerial Order of 18 January 1984) and the minimum size of hook is 7 cm long and 2.9 cm wide (Article 4).

Effort is limited by the prohibition on conducting surface longline fishing for an annual average of more than 20 days per month. Under no circumstance, as a result of surface longline fishing, may global fishing effort be incremented (Article 9).

**Real Decreto 23 January 1998** (BOE 33: 809) regulates fishing for tuna and tuna-like species in the Mediterranean. The preamble of this decree refers to ICCAT 1994 Recommendations and to *Council Regulation (EC) 1626/94. Council Regulation (EEC) No. 2847/93* exempts vessels operating in the Mediterranean from the obligation to keep logbooks and report landings until 1 January 1999. Nevertheless, this Real Decreto incorporates this obligation already in 1998 for purse seiners fishing for Bluefin Tuna. This measure is aimed at achieving a more effective control of the landings, in view of the quotas assigned for 1998 Spanish catches of Bluefin Tuna in the Mediterranean (preamble and Article 15).

Only the following gears are allowed for capture of tuna like species: purse seine with jareta (*artes de cerco con jareta*), traps (*almadrabas y análogos*), surface longlines, *cacea al curracán* (troll lines), *línea de mano*, hooks with fresh bait. *Línea de mano* is a gear consisting of a main line that runs perpendicular to the bottom of the sea. Hanging from that main line are several lines with hooks.

For the last four gears, which use hooks, the Royal Decree stipulates minimum hook sizes for the different species (Articles 3 and 7). For Bluefin Tuna, hooks cannot be smaller than 7 cm. (length) and 3.6 cm. (width). Fishing with gillnets is allowed for some species but prohibited for Swordfish and Bluefin Tuna (Article 5). For purse seiners fishing for Bluefin Tuna, minimum mesh sizes, maximum size of gears, and maximum power of vessel engines are established (Article 6).

An important aspect of this regulation is the creation of a special register for purse seiners fishing Bluefin Tuna. Only the vessels included in this register will be authorized to capture Bluefin Tuna in the Mediterranean with purse seines (Articles 10).

Also according to this law, the Agriculture and Fisheries Department has the faculty to establish seasonal closures and to close areas in order to protect these fisheries. Another possibility to reduce fishing effort foreseen by the law would be to limit fishing days and times, or to lay down catch limits per vessel or gear, based on the ICCAT Recommendations (Articles 9, 11 and 12).

This Royal Decree entered into force on 8 February 1998.

The **Ministerial Order of 27 May 1994** (BOE 129: 16900), establishing a seasonal closure for Bluefin Tuna fishing in

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the Mediterranean Sea implements the ICCAT Recommendation of 12 November 1993, that established a prohibition for Bluefin Tuna fishing by longline vessels greater than 24 m in length in the Mediterranean (preamble). Accordingly, the law prohibits longline vessels of more than 24 m from catching, retaining on board or landing Bluefin Tuna in the Mediterranean between 1 June and 31 July of each year. This prohibition does not apply to Bluefin Tuna captured with other gears or by other types of vessels.

This Order entered into force on 1 July 1994.

The **Ministerial Order of 22 October 1990** (BOE 255: 31217) prohibits the use of driftnets and regulates the use of driftnets as “minor gears” (*artes menores*) in the Mediterranean. The law, which entered into force on 25 October 1990, contains a general prohibition for drifnet fishing, excluding some exceptional cases in the Mediterranean. Fishing for tuna or Swordfish with this gear is specifically prohibited. This Order has been partially modified by Ministerial Orders of 29 September 1994, 12 June 1992 and 28 February 1991. The most relevant modification is found in the Order of 12 June 1992 (BOE 155: 5401). According to this modification, vessels that are authorized to use driftnets in the Mediterranean have to comply with the provisions of *Council Regulation (EEC) 3094/1986*.

### Other relevant legislation

A **Royal Decree of 4 July 1924** regulates fishing with traps.

A **Ministerial Order of 10 May 1988** (BOE 140: 18350) prohibits the use of pelagic and semi-pelagic trawlers in the “Cantabrian and North-west” fishing areas. Spanish vessels fishing in these zones of Spanish territorial waters are not allowed to use pelagic or semi-pelagic trawling nets. Consequently, no Spanish trawler is allowed to capture, land or sell tuna like species (*Thunnus* sp.) at ports within the specified zones (Article 2). The preamble of this law, which entered into force on 12 June 1988, refers to *Council Regulation (EEC) No. 3094/86*.

A **Ministerial Order of 26 February 1999** subjects any recreational fishing to administrative authorization and identifies Swordfish and Bluefin Tuna as especially protected species (in Annex III). Licences to fish these species need to be issued by the central Spanish administration and specific catch limits are established for them. Limits are: one piece, per licence, per day, with a maximum of four pieces per ship, per day. This order also prescribes the use of specific, non-professional fishing gear, and imposes the obligation to declare the landings of Annex III-species to the central Government (*Secretaría General de Pesca Marítima*) by means of a form as shown in Annex I of the Order.

### Control legislation and sanctions

Sanctions related to maritime fishing were regulated by the *Ley 53/1982* of 13 July (BOE 30 181: 20629) until June 1998. This piece of legislation described the different types of infringement in a general manner and established which types of violations were regarded as minor, serious, or very serious offences, as well as the sanctions associated with each type of violation. This is important because Spanish administrative law follows the principle *nulla poena sine lege*. Accordingly, an administrative sanction can only be applied if the punishment is prescribed by a parliamentary statute. However, the *Ley 53/1982* did not describe in detail all possible violations and sanctions, but contained a generic description of the types of banned behaviours (for example, fishing with illegal gears or capturing undersized fish), plus a general reference to the violations incorporated in governmental regulations, international treaties and other legislation in force. The Spanish Supreme Court has accepted this reference to government regulations (which are not Acts of Parliament and have a lower rank in the legislative hierarchy), declaring that there is a “legality block” formed by the Parliament statutes and completed by the government regulations, provided that these regulations are only accessory and subordinate to the provisions of the statutes.

The *Ley 53/1982* was not in line with the complexity of the allocation of powers between the central Government and the *Comunidades Autónomas* in regards to fisheries. A new statute for fisheries sanctions has been passed, which repeals *Ley 53/1982*. This new law is *Ley 14/1998* of 1 June 1998 (BOE 2 June, No. 131, page 3795), establishing a control regime for the protection of fishery resources.

The preamble of the law makes special reference to *Council Regulation (EC) 2847/93*, which establishes a control regime applicable to the CFP. The preamble also acknowledges the obligation of EU Member States to take necessary

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measures to ensure compliance with EU Regulations. The new law follows the allocation of powers between central and autonomous governments formulated by the Constitutional Court. Therefore, the law distinguishes between violations related to fishing activities (fishing as an extraction of a natural resource, which would be subject to the exclusive authority of the central Government), and violations of the “regulation of the fishing sector” (in relation to which the *Comunidades Autónomas* can take up powers, keeping central Government the authority to enact the basic legislation). The new law describes, with more detail than the former, minor, serious and very serious violations and defines precisely the jurisdiction of central and autonomous authorities to apply the relevant sanctions.

The law in Spain classes violations of obligations consequent to an international treaty, such as ICCAT, as very serious if the violation jeopardizes the normal implementation of the treaty (Article 8, paragraph f).

Non-compliance with maximum catch limits assigned to a fishing company or fishermen's association, possession of non-authorized species, undersized fish, or species with an exhausted TAC or quota are also serious violations (Article 7, paragraphs d), e) and f).

The new law strengthens the penalties applicable to very serious offences. According to the former law, the applicable fine for this kind of violation ranged from ESP4-10 million. The new law increases this amount to ESP10-50 million and a facility for reduction of the fine to 35% of the value of the fishing vessel in question has been repealed (Article 13). Other penalties for very serious offences (for example, non-compliance with requirements of international treaties) include suspension or withdrawal of the licence to conduct fishing activities for a maximum period of five years and ineligibility to obtain subsidies, State aids, or public loans for a maximum period of five years. For serious violations (for example, the taking of undersized fish or surpassing catch limits), possible sanctions in addition to monetary fines include suspension or withdrawal of the licence to conduct fishing activities for a maximum period of five years, or confiscation of illegally obtained goods. Sequestration of the vessel is applicable only in those cases where professional maritime fishing is conducted without being officially registered (a very serious offence) (Article 14).

Fines applicable to minor violations are reduced from a possible ESP1 million, according to previous legislation, to ESP10 000 – 50 000.

*Ley 14/98* entered into force on 2 June 1998.

***Ley 20/1995*** of 6 July 1995 (BOE 161: 20652), laying down measures related to the conservation and commercialization of fish products contains only two provisions, aimed at strengthening the effectiveness of the EU Regulations that prohibit the use of driftnets and trawlnets and the capture of undersized fish (preamble). Accordingly, Article 1 of the law prohibits the selling in Spain of fish products harvested in violation of EU fishery conservation rules from any EU country, with special reference to driftnets and pelagic trawlers.

Article 2 prohibits the selling of undersized or immature fish in the whole Spanish territory.

This law entered into force on 8 July 1995.

***Royal Decree 1315/1997*** of 1 August (BOE 204: 5505), establishes a fisheries protection area in the Mediterranean. This is a very important measure through which the Spanish Government is actually asserting sovereignty over an extensive area in the Mediterranean beyond the territorial waters, between Cabo de Gata (Almeria) and the French border. The Mediterranean was not included into the Spanish Exclusive Economic Zone by *Ley 15/ 1978*, 20 February (the Statute that regulates the EEZ). The area extends from Cabo de Gata in Almeria (36° 43' 35 N and 002° 09' 95 W) going 49 miles South-west to the point 35° 54' 5 N and 002° 12' 0 W. From there it continues east along the equidistant lines with other countries in the Mediterranean basin (Article 1). Article 2 of the decree asserts Spain's sovereignty over this area in relation to conservation and management of the fishery resources and implementation of control measures.

It is important to note that the preamble of the decree makes special mention to an existing situation of non compliance and lack of control in the Mediterranean, particularly in regards to ICCAT Recommendations. The Government acknowledges the importance of the Mediterranean Sea as a nursery ground for Bluefin Tuna, as well as the present over exploitation that has a great impact on this species. The goal of the decree is to intensify the control of Spanish and foreign vessels fishing in the area in a similar way to that which is currently regulated for in Spanish territorial waters.

This decree entered into force on 27 August 1997.

# ANNEX 5: SPANISH TRADE IN SWORDFISH AND BLUEFIN TUNA PRODUCTS

Table 1:

## Spanish imports, exports and consumption of Swordfish and Bluefin Tuna products, 1994-98

Swordfish	1994		1995		1996		1997		1998	
	t	ECU1000	t	ECU1000	t	ECU1000	t	ECU1000	t	ECU1000
0302 49 87 Fresh or chilled, excluding fillets	1244.5	4766.5	734.5	3001.8	1794.9	8098.3	2275.7	11563.5	1894.7	11339
Exp.	2404.3	13009.8	1815.5	10383.0	3313.3	17250.2	2698.9	17644.0	4054.1	22389.2
0303 79 87 Frozen, excluding fillets	5176.2	16699.5	3195.5	9184.1	3066.6	9934.5	4312.3	17056.9	6997.2	20645.1
Exp.	2013.8	9118.3	2836.2	11669.2	4845.1	20141.2	4026.6	19304.9	4905.3	18002.4
0304 20 87 Frozen fillets	26.7	110.6	132.7	275.4	23	100.2	58.2	284.5	35.2	156.8
Exp.	223.1	1069.4	680.1	2898.8	843.9	3307.1	889.1	4830.5	891.5	3992.5
Spanish Swordfish catch (FAO, Fishstat, 1999)	16168		19622		16355		14865		8927	
Total imports	22615		23685		21240		21511		9851	
Total exports	4641		5352		9002		7615		9851	
Estimated Spanish consumption (capture-import-export)	17974		18353		12288		13896			
Bluefin tuna										
Bluefin tuna	1994		1995		1996		1997		1998	
	t	ECU1000	t	ECU1000	t	ECU1000	t	ECU1000	t	ECU1000
0302 39 11 Fresh or chilled for industrial manufacture excluding fillets	3491.1	8425.3	5620.6	15270.4	713.1	2141.6	664.3	2722.6	313.7	1055.1
Exp.	483.6	1476.5	555.8	1316.9	303.8	1579.2	176.1	481	289.3	1132.1
0302 39 91 Fresh or chilled for other purpose than industrial manufacture, excl. fillets	338.4	1234.8	693.7	1546.3	457.6	12074.9	4225.1	16251.1	3519.6	10189.1
Exp.	4123.6	27486.7	5323.2	36466.4	5828.9	38314.8	8053.8	61722.4	5117.6	63043.2
0303 40 21 Frozen, whole	70	290.3	162.3	185.6	63.8	46.8	114.2	156.6	293.6	410
Exp.	123.4	104	286.9	262.2	58.4	56.9	500.3	410.7	43.3	59.39
0303 40 23 Frozen, gutted and gutted	0	0	0	0	0	0	103.7	379	89.8	356.3
Exp.	6.3	9.9	17.9	266.6	21.5	27.4	93	263.5	63.9	237.7
0303 40 29 Other (e.g. head off)	0	0	0	0	0	0	0.7	0.1	0	0
Exp.	0	0	0	0	0	0	0	0	0	0
Spanish Bluefin Tuna catch (FAO, Fishstat 1999)	5878		8426		8762		8407		4216.7	
Total imports	3899.5		6476.6		5934.5		5108		5514.1	
Total exports	4736.9		6193.8		6212.6		8823.2			
Estimated Spanish consumption (capture-import-export)	5041.1		8769.2		7884.4		4691.8			

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Table 2

Details of Spanish imports (Imp.) and exports (Exp.) in 1998

Swordfish			Extra-EU			Intra-EU			
		Country	tonnes	% <sup>1</sup>	USD/kg	Country	tonnes	% <sup>2</sup>	USD/kg
0302 69 87	Imp.	Morocco	1015.7	91	7.43	Portugal	650.9	83	5.32
	Exp.	Total	2.8		6.12	Italy	3339.3	82	6.47
0303 79 87	Imp.	Singapore <sup>3</sup>	1068.2	18	3.39	Portugal	727.2	66	3.67
	Exp.	Japan	16.3	41	4.72	Italy	4288.1	88	3.90
0304 20 87	Imp.	Total	0.3		1.36	Portugal	34.4	98	4.80
	Exp.	Cuba	6.6	27	5.75	Italy	748.5	86	4.76
Bluefin Tuna			Extra-EU			Intra-EU			
		Country	tonnes	% <sup>1</sup>	USD/kg	Country	tonnes	% <sup>2</sup>	USD/kg
0302 39 11	Imp.	Total	0			France <sup>4</sup>	137.0	44	3.21
	Exp.	Total	0			France	266.2	92	4.20
0302 39 91	Imp.	Croatia	52.4	31	1.83	France	2859.3	85	3.05
	Exp.	Japan	3196.5	97	19.46	France	1743.2	95	3.66
0303 49 21	Imp.	Total	276.6		1.43	France	16.1	95	2.68
	Exp.	Total	43.3		1.48	Italy	27.2	100	1.39
0303 49 23	Imp.	Total	0			France	45.0	50	4.30
	Exp.	Total	0			France	63.9	100	4.02
0303 49 29	Imp.	Total	0			Total	0		
	Exp.	Total	0.2		24.08	Total	0		

<sup>1</sup> % of the extra-EU imports and exports

<sup>2</sup> % of the intra-EU imports and exports

<sup>3</sup> Other major suppliers: Belize (16%), Taiwan (10%), Panama (8%) and Honduras (6%)

<sup>4</sup> Other major supplier: Italy (36%).

Note: The codes in the far left-hand column of the table relate to forms of Swordfish and Bluefin Tuna traded.

Source: Eurostat, August 1999.