STATUS OF IOTC DATABASES FOR TROPICAL TUNAS

IOTC Secretariat

ABSTRACT

This document reviews the status of the information available on tropical tunas in the databases at the IOTC Secretariat. The review covers data on nominal catches, catch-and-effort, and size-frequency data.

NOMINAL CATCH (NC) DATA

The nominal catch data series of yellowfin (YFT), bigeye (BET) and skipjack (SKJ) tunas are considered to be almost complete since 1950. Yellowfin and bigeye tunas are mainly caught by longlines and purse seines, while catches of skipjack tuna are reported mainly by purse seines, pole and lines and gillnets. Large increases in the catches of these three species have been noted since the mid-eighties.

The Secretariat conducted a major review of the NC database during 2001. This revision led to slight changes in the estimates of catches (not lower or higher than 10% of previous estimates) of the three tropical tuna species, especially since the mid-eighties.

Although the quality of the information on the three tropical tunas is considered in general to be fairly good, the completeness and accuracy of the records are compromised by:

- **Unreported catches:** several countries were not collecting fishery statistics, especially in years prior to the early seventies, and others have not reported their statistics to IOTC. In most cases, the catches of tropical tunas in those countries were probably minor. Nevertheless, the catches of some important longline fleets are unknown, as it is the case with the foreign longliners operating in Maldives and a fleet of domestic fresh tuna longliners operating in South Africa.
- **Underestimated catches**: catches of tunas and tuna-like species are sometimes reported aggregated[1]. When possible, the Secretariat estimates the species and gear composition of these aggregates but this cannot always be done reliably as the accuracy depends on the assumptions made during the estimation process. In addition, catches in several Indian Ocean coastal countries are probably underestimated as sampled landings are not raised to total catch. This is especially true in the case of Indonesia, Yemen and other coastal countries with important catches of tropical tunas.

Uncertainty in the catches may occur in the following cases:

- **Fresh tuna longline fleets**: Although the catches of fresh tuna longline ships based in different ports of the Indian Ocean were re-estimated from data coming from past or recent sampling schemes operated, the accuracy of the estimates is still far from complete, especially in the case of fleets operating from ports not covered by these schemes or past catches estimated on the basis of recent estimates, very far in time.
  - **Indonesia**: The catch estimates are thought less accurate up to the mid-nineties due to lack of detailed information on the total catches and distribution of the different species in the catches.
  - **Sri Lanka and Seychelles**: The catch series was estimated mainly on the basis of information coming from other ports due to the lack of detailed information in the country.
  - **Thailand and Malaysia:** Although the catches series in both countries are thought much more accurate as regards the total catches, this is not the case regarding the distribution of species in the catch, especially in years far from 2000, the first in which catches were estimated from data issuing from sampling.
- **Deep-freezing longline fleets**: Recent estimates of catches of deep-freezing fleets operating under different non-reporting flags, conducted by the IOTC, were possible thanks to an improvement in the number and quality of vessels in the IOTC Vessel Record, especially in years prior to 1998. Nevertheless, the catches are thought not too accurate due to the many assumptions made in estimating the total catches and species breakdown.
- **Ex-Soviet purse seiners**: The catches of ex-Soviet purse seiners, operating under the flags of Panama and Belize in recent years, have not been submitted to the IOTC since 1996. The catches estimated since that year and, in particular, the species allocation, are likely to be less accurate than those of previous years.

CATCH-AND-EFFORT (CE) DATA

The Secretariat informed that the implementation of validation and verification processes and the preparation and computerization of data recorded under heterogeneous spatial-temporal strata continued during 2001.

[1] This is the case notably when data are not reported to the Secretariat and have to be taken from the FAO nominal catch database.

Catch-and-effort records are available for the main fleets fishing for tropical tunas in the Indian Ocean, namely baitboat (SKJ and YFT), purse seine (SKJ, YFT and BET) and longline (BET and YFT). Some gillnet fisheries produce substantial catches of tropical tunas, but the contribution of other gears to the total catches is very small, such that the lack of CE data is not important.

Catch-and-effort statistics from the Maldives are available since 1970. Data have been reported by species, month and atoll from 1970 to 1992 but are only available by species and month since 1993.

Catch-and-effort statistics are available for the main longline fisheries, since 1952 for Japan, since 1967 for Taiwan,China and since 1975 for Korea. The statistics provided by Japan and Taiwan,China are in general considered accurate. Nevertheless, the inconsistencies found during the validation of data records for some years, involving the Japanese CE data for 1980 and Taiwan,China data for the period 1990-92, are still unsolved. Furthermore, the Japanese scientists informed on an ongoing review conducted in Japan regarding the longline fleet, aiming to give consistency to the data reported to the IOTC, by considering the changes recently made to the IOTC boundaries and changing the way in which catches and effort were processed. Thus, the CE data gathered at the IOTC refers to updated figures from 1998 to 2000 and former estimates for years prior to 1998.

Korean CE statistics are thought to be highly inaccurate. Many inconsistencies were found in the data, when comparing the catches in this database with those reported as nominal catches, for instance. The Secretariat recommends that this dataset not be used until these issues are resolved.

Catch-and-effort statistics are complete for European-owned purse seiners and those monitored by European scientists, as well as those from Seychelles. Statistics are also available for other countries including Mauritius, Japan and Iran. As is the case for the NC data, the CE data for the purse-seine fleet formerly under the Russian flag are inaccurate and, at this time, are only available to IOTC for short periods of the operation of this fleet.

SIZE-FREQUENCY (SF) DATA

The quality of the data is thought to be good for fleets under European monitoring, apart from the species and size composition for 1997-2000, which are likely to be less accurate due to problems in the sampling on those vessels reported to the Permanent Working Party on Data Collection and Statistics by the scientists responsible. No or scarce data is available for Iranian, Japanese and ex-Soviet purse seiners. The size frequency statistics of Mauritian purse seiners have been updated this year being now complete since 1986. Baitboat fisheries have also been reporting size-frequency statistics to IOTC, for which quality is thought good.

For longline fisheries, however, only Japan has been reporting size-frequency data since the beginning of the fishery. In recent years, the number of specimens measured is very low in relation to the total catch and has been decreasing year by year. The size-frequency statistics available from the two other main longline fleets are either very incomplete (Taiwan,China for which only four years are available) or inaccurate (Korea), which invalidates their use. The recovery of size data from port sampling regarding fresh tuna longline fleets operating in Phuket, Penang and, recently, in Sri Lanka continued in 2001 and 2002, with many records input to the SF database.

The availability of size frequency statistics for gears other than pole and line, purse seine and longline is very low. Nevertheless, it is worth mention the recovery of Sri Lankan and Omani length frequency statistics referring to gillnet fisheries in these countries.

ESTIMATION OF CATCHES OF NON-REPORTING FLEETS

Documents WPTT-02-02 and WPTT-02-03 present estimates of catches of non reporting fleets conducted by the IOTC thanks to new information available during the last year:

- **Indonesia:** Document WPTT-02-02 is about a major review conducted on the catches of Indonesian vessels in the Indian Ocean. The new catches of artisanal and industrial fleets estimated by the IOTC led to slightly lower catches in years prior to 1991 and much higher catches after that year. These changes in the estimates originated in:
  - Re-estimation of longline catches: The estimation of the catches of longline fleets was conducted on the assumption that previous data reported or estimated from the FAO databases were inconsistent due to underreporting of catches and aggregation of catches of domestic and foreign vessels as Indonesian. The new figures estimated were, thus, lower in years where most of the fleet was made up by foreign longliners and higher in recent years, in which all foreign longliners changed the flag to Indonesia. The catches of longliners from 1973 to 1981, previously recorded aggregated, were estimated separately in order to complete the series. The number of ships and catches estimated for recent years, averaging 70,000 tons, situate Indonesia among the most important fishing fleets in the Indian Ocean, second only to the Taiwanese fleet.
  - Re-estimation of artisanal catches: The catches of artisanal fleets in Indonesia were only estimated when they have not been reported to the IOTC, since 1993. The data recorded in the FAO databases were used to conduct the new estimates with new figures much higher than those previously estimated. Recent catches amount to more than 110,000 tons.
- **Other non-reporting fleets** (NEI): Document WPTT-02-03 presents estimates of catches and number of ships active of fleets operating under different non-reporting flags. The increase in the number of non-reporting fleets in recent times has led to dramatic increases in the catches estimated, reducing in this way the quality of the data gathered regarding the yellowfin tuna, bigeye tuna and, less significantly, skipjack tuna.

- **Purse seine:** The catches of ex-Soviet purse seiners, operating under the flags of Panama and Belize, needed to be estimated since 1995 due to non-reporting. These catches were estimated on the basis of the number of purse seiners operating, previous catches reported and data coming from other purse seine fleets (European Community). Recent catches estimated are around 35,000 tons.
- **Fresh tuna longline**: The catches of fresh tuna longliners were estimated according to the port where the different fleets were based. Most of the catches estimated are from Taiwanese longliners according to the information available.

- **Indonesia**: The catches of foreign fresh tuna longliners based in Indonesian ports were estimated on the basis of catches of domestic vessels. The catches estimated refer to the period 1986-99 with highest catches estimated in the early nineties (around 30,000 tons). No foreign fresh tuna longliners have been operating in Indonesia since 1999.
- **Thailand**: The catches of fresh tuna longliners from Taiwan,China and Indonesia unloaded to processing plants in Phuket were estimated according to the data collected through the AFDEC (Andaman Sea Fisheries Development Centre)-IOTC Sampling Program implemented in 2000. The new catches estimated range from the 700 tons in 1994 to 3,500 tons in 2000.
- **Malaysia**: The catches of fresh tuna longliners based in Malaysia were estimated on the basis of previous data recorded (IPTP Sampling Program) and new estimates from Phuket. The series 1989-2000 was estimated with catches ranging from 10,000 to 35,000 tons. More accurate estimates will be available from sampling data, which have been collected by FRI (Fisheries Research institute) of Penang since 2000.
- **Sri Lanka**: The catches of fresh tuna longliners unloading to processing plants in Sri Lanka were estimated on the basis of previous data collected by NARA (National Aquatic Resources Research and Development Agency) in Colombo and estimates from Phuket and Penang sampling. Catches ranging from 300 to 3,500 tons were estimated for the period 1990-2000.
- **Other fleets:** The catches of Indonesian longliners based in Victoria (**Seychelles**) were estimated according to the number of ships reported by the SFA (Seychelles Fishing Authority) and data coming from sampling in Phuket. The catches of fresh tuna longliners based in **Maldives** and **South Africa**, on the contrary, were not estimated due to lack of reliable information on their numbers and activity.

Deep-freezing longline: The catches of large longliners from several non-reporting countries were estimated according to the number of vessels estimated from the IOTC vessels record and the catches of Taiwanese longliners, on the assumption that most of the vessels operated as the longliners from Taiwan,China. The collection of new information regarding these non-reporting fleets during the last year, especially concerning the number of longliners operating, led to better estimates of catches. Current catches are estimated close to 55,000 tons.

GENERAL DISCUSSION ON DATA RELATED ISSUES FOR TROPICAL TUNAS

A number of problem areas were identified in the data situation for tropical tunas:

- Poor knowledge of the catches, effort and size-frequency from fresh tuna longline vessels, especially from Taiwan,China and several non-reporting fleets.
- Poor knowledge of the catches, effort and size-frequency from non-reporting fleets of deep-freezing tuna longliners, especially since the mid-eighties.
- Lack of accurate catch, effort and size-frequency data for the Indonesian longline fishery in recent years.
- Poor knowledge of the catches and lack of effort and size-frequency data for ex-Soviet purse seine boats flying flags of convenience in recent years.

Improvements have taken place in a number of areas. These include:

A better level of reporting: NC, CE and SF information have been obtained for Omani vessels for some years and species. Sets of CE and SF statistics provided by Korea were integrated to the IOTC databases, although their quality is thought low.

Revision of the IOTC databases: Several revisions have been conducted during the last year on the IOTC databases. This has led to new datasets being input, especially regarding CE and SF statistics and to new series of NC data for some countries.

An improved Vessel Record: More information has been obtained on the number and type of vessels operating under flags of non-reporting parties. This information comes mostly from various licensing schemes in the Indian Ocean and has become an important element in the estimation of the catches of non reporting fleets.

Improved estimation of catches of non-reporting fleets: The collection of historical and current information on the landings of small fresh tuna longliners in ports in the Indian Ocean has improved the accuracy of earlier estimates. The more complete Vessel Record also permitted the estimation by flag of the catches of deep-freezing longliners.

Recovery of historical activity and size data from processing plants: The collection of historical information from operators in different ports of the Indian Ocean has continued since last year. Some 200,000 individual fish weight records by species have been retrieved to date for 1998 to 2002.

IOTC sampling programmes: The collection of information on the activities of fresh tuna longliners landing in Phuket and Penang has continued during 2002. This has led to more complete and accurate estimates of catches of these fleets. Other valuable data collected in the scope of

these programmes refer to length frequencies which will allow length-length, length-weight and weight-length relationships to be established. Sampling is also carried out in Sri Lanka since March 2002; fresh tuna longliners have been operating in this country since the early nineties.

Plan of Action in Indonesia: A large scale operation involving several local and foreign institutions was initiated in April 2002 in Indonesia. The primary objective of this multi-lateral cooperation is building the necessary capabilities in the country, so as to allow Indonesia to generate good quality statistics in the near future. The data retrieved during the first trips to Indonesia, in the scope of this cooperation, permitted to conduct more accurate estimates on the catches and crafts operating in this country since 1970. Sampling of landings of fresh tuna longliners operating in this country is scheduled to start by July this year and will allow raising more precise estimates.

Korean CE and SF: The series 1990-2000 of SF for yellowfin and bigeye tunas and 1999-2000 CE statistics reported last year by Korea was input to the corresponding IOTC databases after removal of inconsistent data.

Oman CE and SF data: Oman has submitted CE statistics of vessels operating gillnets from 1987 to 2000 and SF statistics of yellowfin tuna from 1986 to 1994. The recovery of more information is expected in the near future.

The status of the current data situation for each of the species can be summarised as follows:

YELLOWFIN AND BIGEYE TUNA

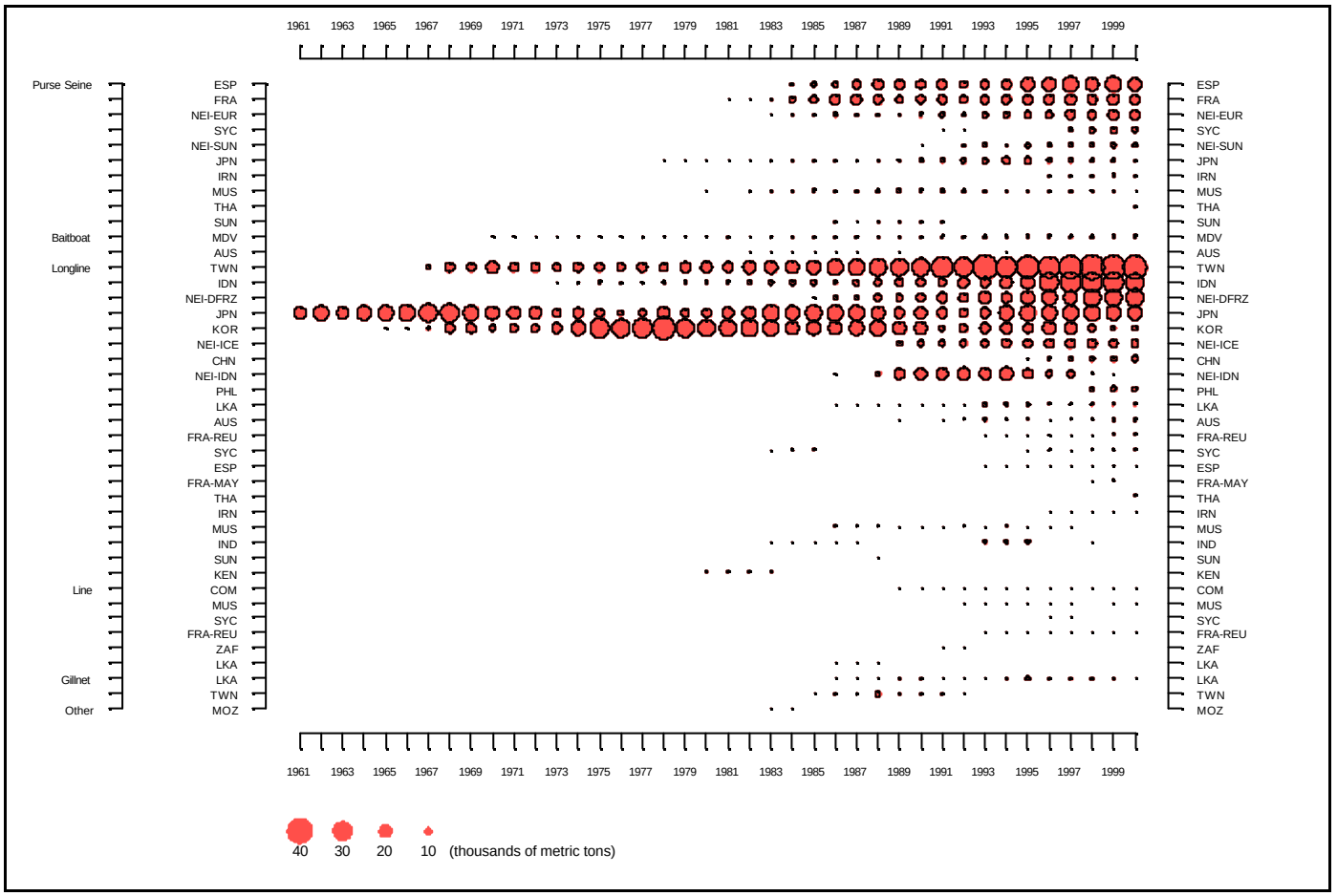
NC data: Relatively well known for most purse-seine fisheries and the main longline fleets (Japan, Korea and Taiwan,China). Catches of non-reporting longline and purse seine fleets are still uncertain, although they are believed more accurate than past catches estimated. Artisanal catches are uncertain, although they are not considered large, with the possible exception of gillnet/longline and other coastal fleets where the catches are reported under "other species" groups, especially for early years.

CE data: Well known in the purse-seine fisheries and the main longline operations (Japan, Korea and Taiwan,China). Nevertheless, the Korean data are thought inaccurate. No catch-and-effort statistics are available for non-reporting longline and purse seine vessels.

SF data: Data for the period 1997-2000 from the EU PS sampling is considered less accurate. Sampling coverage from Japan and Korea is low in recent years. The only data available regarding non-reporting fleets are from sampling in Phuket and Penang. No SF data are available from Taiwanese vessels since 1989. Little information is available on important artisanal catches (e.g. Oman, Pakistan, Yemen and Comoros). The

SKIPJACK TUNA

NC data: Relatively well known for most purse-seine fisheries. Data are available for the important artisanal fishery in Maldives. Artisanal components (not well known) are important for this species. In several coastal countries the catches are not reported by gear.


1961 1963 1965 1967 1969 1971 1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999
Purse Seine
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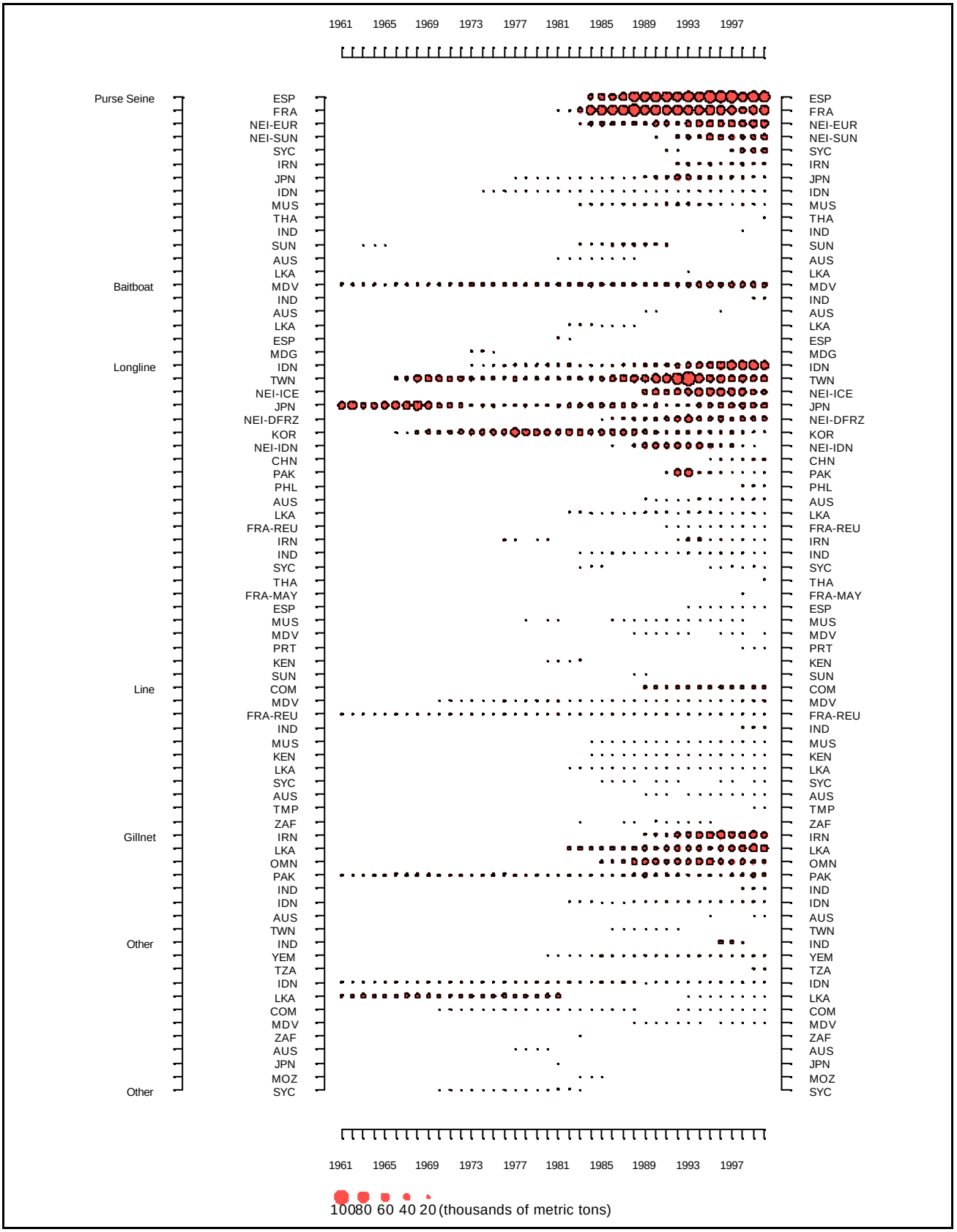
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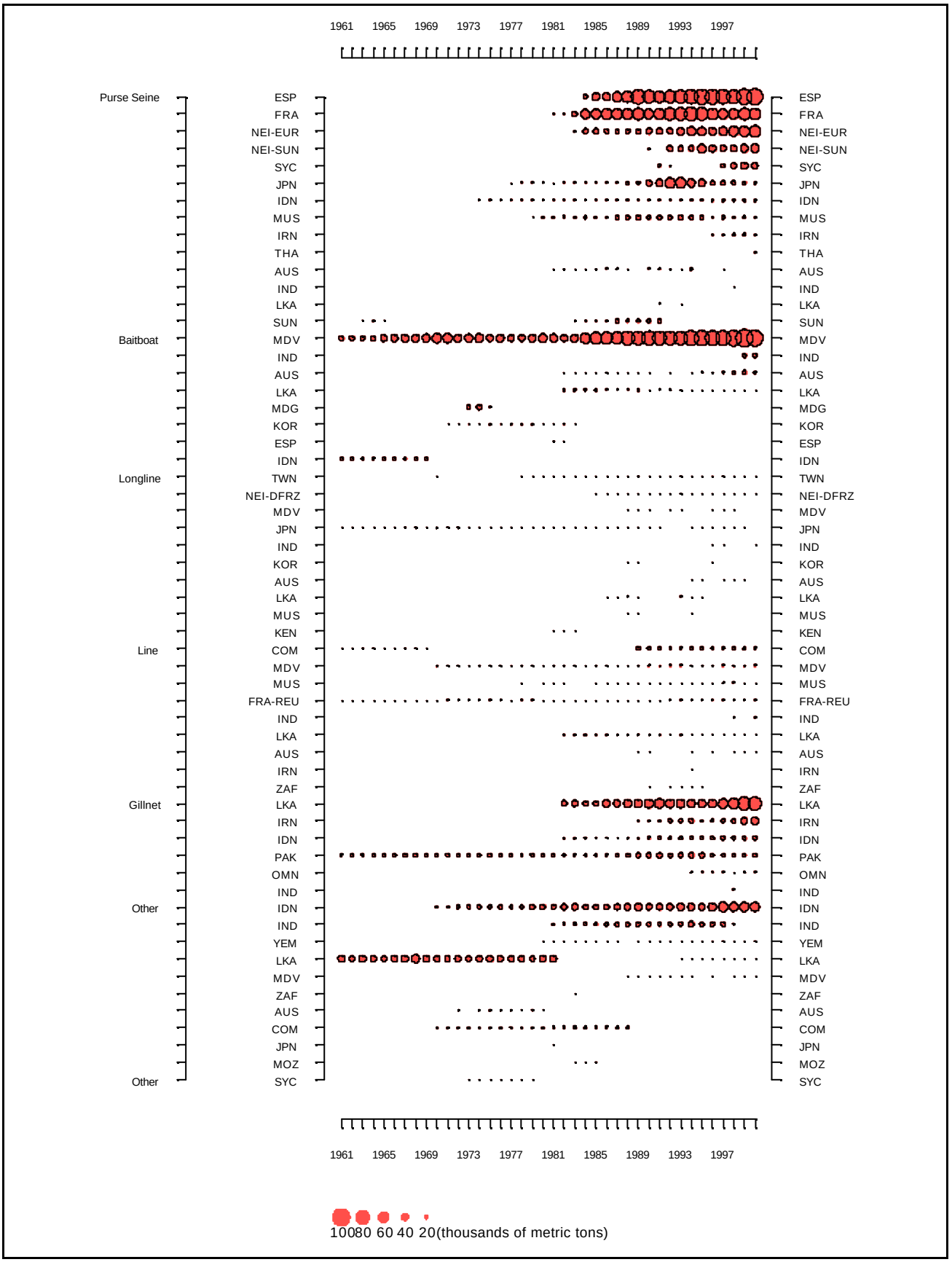
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1961 1965 1969 1973 1977 1981 1985 1989 1993 1997
10080 60 40 20(thousands of metric tons)

Table 1: Catches of Bigeye Tuna (BET) in the Indian Ocean for the period 1961-2000 (in thousand of metric tonnes)

Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
Purse Seine	Spain	13.1																								0.8	1.3	1.8	5.0	6.8	5.9	4.9	6.0	3.6	5.4	5.9	12.2	11.4	15.9	11.2	16.0	10.8
	France	7.3																					0.0	0.0	0.2	2.3	4.3	7.1	7.0	6.2	3.6	4.6	5.4	3.8	5.0	5.4	7.3	6.9	7.8	6.4	8.5	6.7
	NEI-European	5.6																							0.0	0.5	0.6	1.0	0.8	0.8	0.5	1.0	1.5	0.9	1.9	2.5	3.4	3.4	6.2	5.2	7.5	6.0
	Seychelles	1.9																															0.0	0.0					0.9	2.0	3.0	1.9
	NEI-Ex-Soviet Union	1.2																														0.0		0.4	1.0	0.3	1.4	1.1	1.2	1.0	1.6	1.2
	Japan	1.0																		0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.3	0.6	1.1	1.3	1.8	2.0	4.2	3.6	1.3	1.3	0.9	0.9	0.5
	Iran, Islamic Republic	0.3																																				0.1	0.2	0.4	0.6	0.3
	Mauritius	0.2																				0.0		0.1	0.3	0.2	0.7	0.3	0.6	0.7	1.3	0.8	1.1	0.7	0.6	0.6	0.6	0.3	0.5	0.3	0.2	0.0
	Thailand	0.2																																								0.2
	Soviet Union																											0.2	0.0	0.3	0.1	0.2	0.2									
Baitboat	Maldives	0.6										0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.5	0.4	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.5
	Australia																							0.0	0.0	0.0	0.0	0.0	0.0		0.0				0.0								
Longline	Taiwan,China	35.4							1.2	5.9	5.4	10.0	5.5	5.5	4.0	6.0	5.3	4.2	6.2	4.9	7.4	8.9	6.8	11.3	11.3	10.9	12.2	16.8	17.6	19.4	19.9	20.7	29.0	24.0	39.5	27.7	32.6	29.8	34.1	39.7	37.1	36.4
	Indonesia	25.2													0.0	0.2	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.8	1.9	2.3	2.4	0.7	2.4	3.1	4.4	4.4	4.4	7.5	6.6	9.8	11.6	23.8	27.1	26.1	27.5	21.4
	NEI-Deep-freezing	17.0																									0.1	1.1	0.9	3.4	3.2	4.4	7.0	5.8	10.0	7.3	11.2	14.7	12.1	19.5	18.2	20.5
	Japan	15.1	9.1	14.2	9.1	14.0	15.5	17.4	21.7	22.4	15.7	12.3	10.8	8.9	5.1	6.8	5.6	2.1	3.0	10.3	4.2	5.9	8.4	11.7	18.4	13.5	16.5	16.2	14.7	12.1	6.9	9.3	7.1	4.8	6.9	14.5	15.9	15.3	16.4	17.1	14.0	12.8
	Korea, Republic of	5.5					0.1	0.1	0.4	6.3	6.6	2.6	4.1	4.3	6.6	13.4	24.7	21.0	24.6	32.9	21.2	18.7	18.9	18.9	16.7	11.5	12.4	11.4	13.9	16.5	11.7	10.3	2.1	4.5	7.1	8.2	6.2	10.8	10.2	3.2	1.3	1.8
	NEI-Fresh Tuna	5.2																													1.9	2.6	2.3	2.6	3.4	5.3	5.5	5.7	6.0	6.0	4.8	3.6
	China	1.8																																			0.1	0.5	1.7	2.2	2.2	2.7
	Philippines	1.6																																						1.6	1.9	1.3
	NEI-Indonesia Fresh Tun	1.5																										0.1		1.9	7.4	9.0	9.3	11.2	9.0	11.8	6.4	2.7	2.9	0.2	0.0	
	Sri Lanka	0.3																										0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.9	0.9	0.2	0.2	0.3	0.3	0.3
	Australia	0.2																													0.0		0.0	0.1	0.5	0.1	0.1	0.0	0.1	0.2	0.5	0.5
	France-Reunion	0.1																																	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2
	Thailand	0.1																																								0.1
	France-Territories	0.1																																						0.0	0.1	
	Seychelles	0.1																							0.0	0.1	0.1										0.0	0.1	0.0	0.1	0.1	0.1
	Spain	0.0																																	0.0	0.0			0.0	0.0	0.1	0.0
	Iran, Islamic Republic	0.0																																				0.0	0.0	0.0	0.0	0.0
	Mauritius	0.0																										0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0			
	India	0.0																							0.0	0.0	0.0	0.0	0.0						0.9	1.1	1.1			0.0			
	Kenya																					0.2	0.2	0.2	0.3																		
	Soviet Union																													0.0													
Gillnet	Sri Lanka	0.3																										0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	1.2	0.3	0.4	0.5	0.1	0.0
	Taiwan,China																										0.0	0.3	0.1	1.9	0.5	0.2	0.1	0.0								
Line	Comoros	0.0																													0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Mauritius	0.0																																0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
	Seychelles	0.0																																				0.0	0.0			
	France-Reunion	0.0																																	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sri Lanka																											0.0	0.0	0.0												
	South Africa																																0.0	0.0								
Other	Mozambique																								0.0	0.0																	
	TOTAL		9	14	9	14	16	18	23	35	28	25	20	19	16	27	36	28	34	49	33	34	35	43	49	43	51	58	64	74	68	74	77	72	101	107	122	129	146	145	147	130
Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00

Table 2: Catches of Skipjack Tuna (SKJ) in the Indian Ocean for the period 1961-2000 (in thousand of metric tonnes)

Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
Purse Seine	Spain	67.9																								6.4	18.6	19.1	27.9	39.7	63.9	47.9	41.8	46.7	51.3	61.6	69.6	66.3	62.9	58.6	74.3	77.2
	France	36.9																					0.2	1.0	9.4	27.3	29.8	36.1	35.6	36.1	43.1	29.0	39.4	45.0	48.2	58.4	48.7	40.1	31.3	30.3	42.7	39.9
	NEI-European	29.6																							0.4	8.2	8.4	6.4	4.8	7.0	7.9	11.0	10.8	10.8	17.4	24.5	22.3	18.4	24.3	31.2	33.4	40.8
	NEI-Ex-Soviet Union	16.3																														0.7		10.0	8.0	8.2	21.5	15.9	12.0	13.3	19.5	21.0
	Seychelles	10.8																															1.8	0.6					4.9	10.7	15.8	11.6
	Japan	5.1																	0.1	0.9	0.6	0.4	0.0	0.5	0.6	0.7	0.3	0.6	0.9	2.3	3.4	10.9	15.9	31.5	31.3	20.1	16.1	7.0	6.7	5.7	4.6	1.4
	Indonesia	2.2														0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.6	0.7	0.1	1.1	0.9	0.9	1.0	0.9	1.0	0.9	1.4	1.3	1.5	1.4	1.9	2.5	2.2	2.3	2.3
	Mauritius	1.7																			0.0	1.0	1.7	2.4	1.4	2.5	2.0	1.9	4.4	5.0	5.6	4.1	6.5	6.0	6.9	5.1	3.8	1.9	2.9	1.2	2.4	0.3
	Iran, Islamic Republic	1.6																													0.8	1.0	2.0	2.7	1.6
	Thailand	1.1																																								1.1
	Australia	0.0																					0.0	0.3	0.0	0.0	0.1	0.6	0.8	0.0		0.6	0.8	0.3	0.0	1.2			0.0			
	India	0.0																																						0.0		
	Sri Lanka																																0.2		0.0							
	Soviet Union					0.0	0.2	0.0																	0.1	0.6	1.0	2.0	4.7	2.7	2.7	3.9	5.6									
Baitboat	Maldives	76.6	8.0	8.0	8.0	8.0	14.1	16.9	18.9	17.5	19.6	27.6	28.0	17.5	19.5	22.5	14.9	18.6	13.7	13.2	17.3	22.2	19.6	15.3	19.3	32.3	42.2	45.1	42.6	58.2	57.8	60.7	58.3	57.6	58.0	68.7	69.9	66.2	68.1	77.8	92.3	78.8
	India	5.8																																							5.7	5.9
	Australia	2.2																						0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0		0.0		0.1	0.5	0.2	0.9	2.2	5.0	2.9
	Sri Lanka	0.0																						2.0	2.1	1.5	1.8	0.4	0.4	0.5	1.8	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Spain																						0.2	0.0																			
	Indonesia		2.1	2.1	2.2	2.3	2.6	2.8	2.7	2.9	3.1																															
	Korea, Republic of												0.0	0.0	0.1	0.0	0.2	0.1	0.6	0.8	0.4	0.0	0.0	0.1	0.0																	
	Madagascar														5.0	10.4	1.6																										
Longline	Taiwan,China	0.1										0.0								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
	NEI-Deep-freezing	0.0																										0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maldives	0.0																												0.0	0.0			0.0	0.0			0.0	0.0	0.0		
	Korea, Republic of	0.0																												0.0	0.0							0.0				
	Japan	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	
	India	0.0																																				0.0	0.0			0.0
	Australia	0.0																																		0.0	0.0		0.0	0.0	0.0	
	Kenya																						0.0	0.0	0.0																	
	Sri Lanka																											0.0	0.0	0.1	0.0				0.3	0.0	0.0					
	Mauritius																													0.0	0.0					0.0						
Gillnet	Sri Lanka	37.8																						10.6	11.2	8.7	10.1	16.7	16.3	19.6	22.6	25.0	27.9	23.8	24.1	21.5	18.2	22.7	27.8	34.6	51.9	51.9
	Iran, Islamic Republic	8.9																													0.3	0.8	1.1	4.3	4.4	7.4	1.1	2.5	5.0	4.7	13.9	18.5
	Indonesia	5.0																						0.5	0.7	0.8	0.3	0.3	0.3	0.6	0.8	1.7	2.8	2.8	3.0	3.5	3.1	4.3	5.6	4.9	5.1	5.1
	Pakistan	4.4	1.0	1.6	2.4	3.3	3.6	4.8	4.7	4.7	4.2	3.9	3.1	3.7	2.9	4.0	4.5	4.2	3.7	2.2	3.8	1.7	2.7	3.3	1.1	1.2	2.0	1.5	3.7	5.5	7.5	7.6	7.4	6.1	6.9	8.1	7.1	4.1	4.5	4.4	4.5	4.3
	India	0.6																																						0.6		
	Oman	0.4																																		0.4	0.8	0.4	0.7	0.2	0.3	0.3
Line	Comoros	2.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2																				3.8	3.8	3.8	1.8	1.8	2.2	2.2	2.2	2.1	2.1	2.0	2.2
	Maldives	0.7										0.6	0.5	0.3	0.5	0.4	0.3	0.5	0.3	0.3	0.3	0.5	0.4	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.7	0.6	1.0	0.8	0.5	0.5	0.3	0.9	0.6	0.6	0.9
	Mauritius	0.1																		0.0		0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0
	India	0.1																																						0.1		0.1
	France-Reunion	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Sri Lanka	0.0																						0.7	0.7	1.4	0.3	0.2	0.2	0.2	0.1	0.1	0.6	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Australia	0.0																													0.0	0.0				0.0		0.0		0.0	0.0	0.0
	Iran, Islamic Republic																																			0.0						
	South Africa																								0.0		0.0	0.0	0.0	0.0												
Other	Indonesia	24.6										2.3	2.4	3.7	4.1	4.4	3.7	5.3	3.7	3.8	8.2	8.6	7.6	12.1	12.0	9.5	10.0	10.1	10.8	12.2	17.4	12.0	11.5	12.8	14.7	17.0	15.2	21.2	27.4	23.9	25.1	25.1
	India	4.4																					1.8	2.4	2.8	3.6	3.3	4.3	5.9	5.1	6.4	5.8	4.6	4.9	5.0	9.3	6.6	6.8	6.1	0.4		
	Yemen	0.1																				0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
	Sri Lanka	0.0	15.0	9.4	15.5	11.0	10.0	11.6	16.4	20.7	14.6	11.8	9.5	13.2	10.4	12.3	15.2	12.2	11.4	11.0	8.3	12.7	13.8												0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maldives	0.0																												0.0			0.0	0.0	0.0	0.2		0.0		0.0	0.0	0.0
	Australia													0.1		0.1	0.5	0.4	0.1	0.0	0.1	0.0																				
	Comoros											1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.7												
	Japan																						0.0																			
	Mozambique																								0.1	0.2	0.1															
	Seychelles														0.1	0.1	0.0	0.0	0.0	0.0	0.0																					
	South Africa																								0.0																	
	TOTAL		26	21	28	25	30	36	43	46	42	47	45	40	44	56	43	43	35	34	41	49	50	54	64	107	133	148	162	198	247	228	243	268	284	320	309	284	298	313	404	393
Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00

Table 3: Catches of Yellowfin Tuna (YFT) in the Indian Ocean for the period 1961-2000 (in thousand of metric tonnes)

Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
Purse Seine	Spain	52.6																								11.5	18.4	20.0	26.3	44.9	41.1	43.7	44.0	37.8	47.8	43.1	65.1	59.4	61.0	38.6	51.9	52.1
	France	31.5																					0.2	1.0	10.5	36.7	39.1	43.3	46.8	59.9	38.4	45.3	38.1	45.3	39.5	35.8	39.6	35.6	31.2	22.4	30.8	37.7
	NEI-European	22.4																							0.7	8.4	9.4	6.3	5.2	7.9	4.5	11.9	11.9	8.1	15.5	19.7	19.3	16.7	21.9	20.3	25.8	27.1
	NEI-Ex-Soviet Union	11.6																													0.8		5.1	8.1	5.8	17.0	12.7	10.5	8.2	12.3	14.4
	Seychelles	7.9																														0.4	0.2					2.8	7.4	9.8	11.6
	Iran, Islamic Republic	2.3																															2.1	3.4	2.7	4.3	1.6	1.9	3.3	2.5	2.2
	Japan	2.1																	0.0	0.2	0.1	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.3	0.4	0.9	3.0	5.1	11.9	10.9	5.3	4.8	3.9	2.6	1.9	1.5	0.7
	Indonesia	0.8														0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.6	0.3	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.8
	Mauritius	0.7																							1.1	1.2	0.9	0.7	1.6	1.2	1.7	1.4	2.6	2.1	2.5	1.8	1.6	0.6	0.8	1.2	0.6	0.1
	Thailand	0.3																																								0.3
	India	0.0																																						0.0		
	Australia																						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
	Sri Lanka																																	0.0								
	Soviet Union				0.0	0.0	0.0																		0.2	0.1	0.7	2.9	3.6	4.2	3.1	2.4	3.1										
Baitboat	Maldives	11.9	1.5	1.5	1.5	1.5	1.0	1.5	1.7	1.7	1.8	2.3	1.4	2.5	6.9	5.0	4.6	5.2	4.9	3.8	4.4	4.4	5.6	4.5	7.7	8.2	6.9	6.2	7.4	5.9	5.5	4.9	7.0	8.0	9.3	12.4	11.8	11.5	12.2	13.0	13.0	10.1
	India	0.6																																							0.6	0.7
	Australia	0.0																													0.0	0.0					0.0				
	Spain																						0.4	0.1																			
	Sri Lanka																							0.4	0.5	0.3	0.0	0.0	0.0	0.0													
	Madagascar														0.6	1.2	0.2																										
Longline	Indonesia	33.9													0.1	0.3	0.7	1.0	1.3	1.3	1.4	2.1	2.6	2.7	0.8	0.8	0.8	0.7	1.3	2.2	3.8	4.5	5.4	9.1	12.0	15.5	17.0	29.3	35.3	34.1	40.4	30.3
	Taiwan,China	20.9						4.0	6.2	22.4	20.9	14.9	11.8	11.8	5.7	4.4	4.6	3.4	8.1	4.2	3.7	3.8	4.1	4.7	5.6	5.8	7.3	16.2	22.3	22.7	22.4	31.6	30.7	56.0	88.0	34.0	23.1	27.9	18.4	23.4	17.7	17.4
	NEI-Fresh Tuna	19.1																													11.9	16.6	14.4	16.7	19.5	27.6	25.7	24.3	24.2	21.6	14.5	10.6
	Japan	14.2	21.6	33.0	15.9	17.3	20.9	27.2	27.8	38.1	22.7	10.8	12.9	7.8	3.4	4.4	4.7	2.7	2.1	4.0	2.0	3.3	4.7	6.4	7.0	7.5	9.3	11.0	7.6	8.6	3.6	6.2	3.8	3.8	3.4	7.0	8.0	12.0	13.5	16.5	14.9	14.3
	NEI-Deep-freezing	10.1																									0.1	1.1	1.2	4.0	3.6	6.7	7.5	13.4	22.3	9.0	7.9	13.7	6.6	11.5	8.7	9.8
	Korea, Republic of	2.3						0.1	0.2	4.6	8.0	4.1	6.5	9.6	9.9	11.6	11.7	12.8	31.4	25.2	17.8	12.5	11.8	18.7	15.3	9.9	12.0	14.9	12.6	13.4	8.1	7.0	3.0	4.1	4.7	3.6	2.4	3.4	3.6	2.3	0.9	1.1
	NEI-Indonesia Fresh Tun	2.0																										0.1		2.6	10.2	12.4	12.7	15.3	12.3	16.1	8.7	3.7	3.9	0.3	0.0	
	China	1.3																																			0.1	0.5	0.8	0.4	2.3	2.4
	Pakistan	0.6																															1.7	19.5	28.2	2.2	3.0	2.5	0.1	0.1	0.1	0.2
	Philippines	0.5																																						0.6	0.6	0.3
	Australia	0.3																													0.2	0.1	0.0	0.0	0.1	0.6	0.2	0.1	0.3	0.3	0.5	0.4
	Sri Lanka	0.3																						0.8	0.9	0.6	0.2	0.4	0.4	0.4	0.8	0.7	1.1	0.5	1.1	0.9	0.9	0.2	0.2	0.3	0.4	0.4
	France-Reunion	0.3																															0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.3
	Thailand	0.2																																								0.2
	France-Territories	0.2																																						0.2		
	Iran, Islamic Republic	0.1																0.9	0.7		0.4	0.4												0.4	5.0	5.0	0.4	0.2	0.2	0.2	0.0	0.0
	India	0.1																							0.0	0.0	0.1	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0
	Seychelles	0.1																							0.0	0.1	0.2										0.0	0.0	0.1	0.0	0.1	0.0
	Spain	0.0																																	0.0	0.0			0.0	0.0	0.0	0.1
	Mauritius	0.0																		0.0		0.0	0.0					0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0		
	Portugal	0.0																																						0.0	0.0	0.0
	Maldives	0.0																												0.0	0.0			0.0	0.0			0.0	0.0	0.0		0.0
	Kenya																					0.1	0.2	0.2	0.4																	
	Soviet Union																													0.0	0.0											
Gillnet	Iran, Islamic Republic	20.7																													1.0	2.3	3.2	12.1	13.3	19.5	22.5	28.5	19.1	18.0	24.3	13.5
	Sri Lanka	19.3																						6.7	7.2	5.2	6.1	6.9	6.7	8.1	9.3	7.2	11.0	10.0	10.4	11.1	7.8	12.7	15.5	19.3	27.1	21.7
	Oman	9.4																									2.2	2.5	5.8	15.5	16.0	14.1	9.0	13.4	11.4	18.9	21.3	11.6	9.8	11.3	7.4	7.0
	Pakistan	4.7	0.8	1.2	1.8	2.4	2.6	3.5	3.4	3.4	3.1	2.8	2.3	2.8	2.2	3.0	3.3	3.1	2.7	1.6	2.8	1.3	2.0	2.5	0.8	0.9	1.5	2.5	2.3	3.7	8.6	3.2	4.8	3.9	2.6	2.4	2.1	2.8	3.7	3.7	8.7	4.7
	India	1.2																																						2.0	0.9	0.9
	Indonesia	0.5																						0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5
	Australia	0.0																																			0.0				0.0	0.0
	Taiwan,China																											0.0	0.1	0.0	0.0	0.1	0.0	0.0								
Line	Comoros	5.4																													3.3	3.3	3.3	4.7	4.7	5.6	5.6	5.5	5.3	5.3	5.2	5.6
	Maldives	0.7										0.3	0.2	0.2	0.3	0.3	0.3	0.5	0.4	0.5	0.7	0.7	0.7	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.6	0.7	1.6
	India	0.5																																						0.3	0.5	0.6
	France-Reunion	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.4	0.2	0.3	0.3
	Mauritius	0.2																								0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
	Kenya	0.1																								0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Sri Lanka	0.0																						0.4	0.5	0.4	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Seychelles	0.0																									0.0	0.0	0.0	0.0		0.0	0.0	0.0				0.0	0.0		0.0	0.0
	Australia	0.0																													0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	East Timor	0.0																																							0.0	0.0
	South Africa																								0.0				0.0	0.0		0.1	0.0	0.0	0.0	0.0	0.0					
Other	India	4.1																																			7.2	4.0	1.2			
	Yemen	0.8																				0.0	0.0	0.0	0.0	0.2	2.4	0.8	0.5	1.6	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	Tanzania	0.5																																							0.4	0.7
	Indonesia	0.2	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.6	0.6	1.0	1.0	0.8	0.1	0.3	1.0	1.4	2.2	1.8	0.1	1.1	0.8	0.4	1.8	2.9	1.7	1.5	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
	Sri Lanka	0.0	3.2	4.7	7.8	5.4	6.0	5.8	8.5	9.0	6.8	5.8	4.7	6.5	5.1	6.1	6.6	6.9	5.7	5.4	6.2	6.9	7.7											0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Comoros	0.0										0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Maldives	0.0																													0.0	0.0		0.0	0.0		0.0	0.0	0.0			
	Australia																		0.0	0.0	0.0	0.0																				
	Japan																						0.0																				
	Mozambique																								0.0	0.2	0.0																
	Seychelles											0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.4	0.9	0.5	0.1																		
	South Africa																								0.2																		
	TOTAL		28	41	28	27	31	43	49	80	64	42	41	43	36	38	37	37	59	48	42	38	41	52	61	100	121	141	155	210	200	231	226	306	379	308	323	332	313	293	329	304

Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00

Table 4: Catches of Tropical tunas reported under species aggregates in the Indian Ocean for the period 1961-2000 (in thousand of metric tonnes)

Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
Purse Seine	Indonesia	4.6														0.2	0.4	0.6	0.8	0.8	0.9	0.9	0.9	1.1	1.6	1.6	2.0	2.5	2.5	2.7	2.7	2.8	0.8	3.2	3.1	3.0	3.3	4.2	4.7	4.5	4.8	4.8
	Mauritius	0.1																				0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.5	0.1	0.3	0.1	0.2	0.1	0.2			
	Japan	0.0																															0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Iran, Islamic Republic	0.0																																			0.0	0.0	0.0			
	India	0.0																																					0.0			
	NEI-Ex-Soviet Union																																0.2	1.4								
	Soviet Union																										0.1	0.0	0.0	0.1	0.1	0.2	0.0									
	Australia																						0.0	0.0	0.0		0.0	0.0	0.0				0.0	0.0	0.0	0.0						
Baitboat	Australia	0.0																																					0.0			
	Sri Lanka																							1.3	0.9		0.7																
Longline	Korea, Republic of	0.6					0.0	0.0	0.0	1.5	2.4	2.4	2.0	1.5	1.5	3.0	4.4	2.4	4.7	3.7	0.7	1.9	1.7	1.8	2.2	0.8	1.1	1.3	1.5	1.7	1.4	1.1	0.4	0.7	1.0	0.9	0.5	1.3	1.1	0.5	0.2	0.1
	China	0.4																																			0.1	0.2	0.3	0.4	0.6	0.5
	NEI-Fresh Tuna	0.1																																	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
	Philippines	0.0																																					0.1	0.0	0.0
	India	0.0																							0.0	0.0	0.0	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0			0.0
	Seychelles	0.0																																				0.0	0.0	0.0	0.0	0.0
	Mauritius	0.0																																			0.0	0.0	0.0	0.0		
	France-Reunion	0.0																																				0.0				
	Australia	0.0																																	0.0			0.0	0.0			
	Portugal	0.0																																					0.0	0.0	0.0
	NEI-Deep-freezing	0.0																											0.0			0.0	0.0	0.0	0.1	0.0	0.0	0.0				
	Kenya																							0.0	0.0																	
	Sri Lanka																																		0.0	0.0	0.0					
	Soviet Union																													0.1												
	Taiwan,China											0.0	0.1	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.1	0.0	0.4	0.1	0.1					
Gillnet	Pakistan	1.0	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.5	0.4	0.0			0.6	0.4	0.5	1.8	1.5
	Oman	0.1																						0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5		0.3	0.3	0.7	0.4	0.1	0.2	0.1	0.0	0.2
	India	0.1																																					0.2			
	Sri Lanka	0.0																						2.5	1.9		2.5	0.0	0.0	0.0	0.0		0.0								0.0	0.0
	Australia	0.0																																			0.0				0.0	0.0
Line	Comoros	0.5																												0.6	0.6	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.5
	Mauritius	0.3																		0.0		0.0	0.0	0.0		0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0						0.0	0.7	0.7
	India	0.0																																					0.0			
	Australia	0.0																												0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Seychelles	0.0																													0.0	0.0	0.0							0.0	0.0
	Sri Lanka																							8.8	6.6		2.6															
	South Africa																														0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Other	Indonesia	19.0	0.9	1.0	1.0	1.1	1.2	1.2	1.2	1.2	1.4	1.8	1.9	3.2	3.7	5.7	4.0	5.4	5.8	3.9	7.4	10.9	11.0	13.5	14.0	15.5	14.0	14.3	13.2	9.9	13.2	8.5	11.5	9.0	11.2	13.3	11.6	16.3	21.5	18.5	19.4	19.4
	Tanzania	0.2																																							0.5	0.3
	Yemen	0.0																													0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	India	0.0																					0.1	0.2	0.1	0.2	0.4	0.2	0.6	0.2	0.3	0.4	0.3	0.5	0.5	0.4	0.4			0.1		
	Comoros	0.0														0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Australia															0.0	0.0	0.0	0.0	0.0	0.0	0.0																				
	Sri Lanka			2.7	4.3	3.1	3.4	3.1	4.8	6.3	3.3	3.4	2.6	3.8	2.8	3.3	3.4	4.1	5.2	6.0	6.4	6.6	9.4																			
	Mozambique																										0.3															
	South Africa																								0.0																	
TOTAL			1	4	5	4	5	5	6	9	7	8	7	9	8	13	12	13	17	15	16	20	23	29	28	18	24	19	19	15	19	15	15	15	19	19	17	23	29	25	29	28
Gear	Fleet	AvC	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00

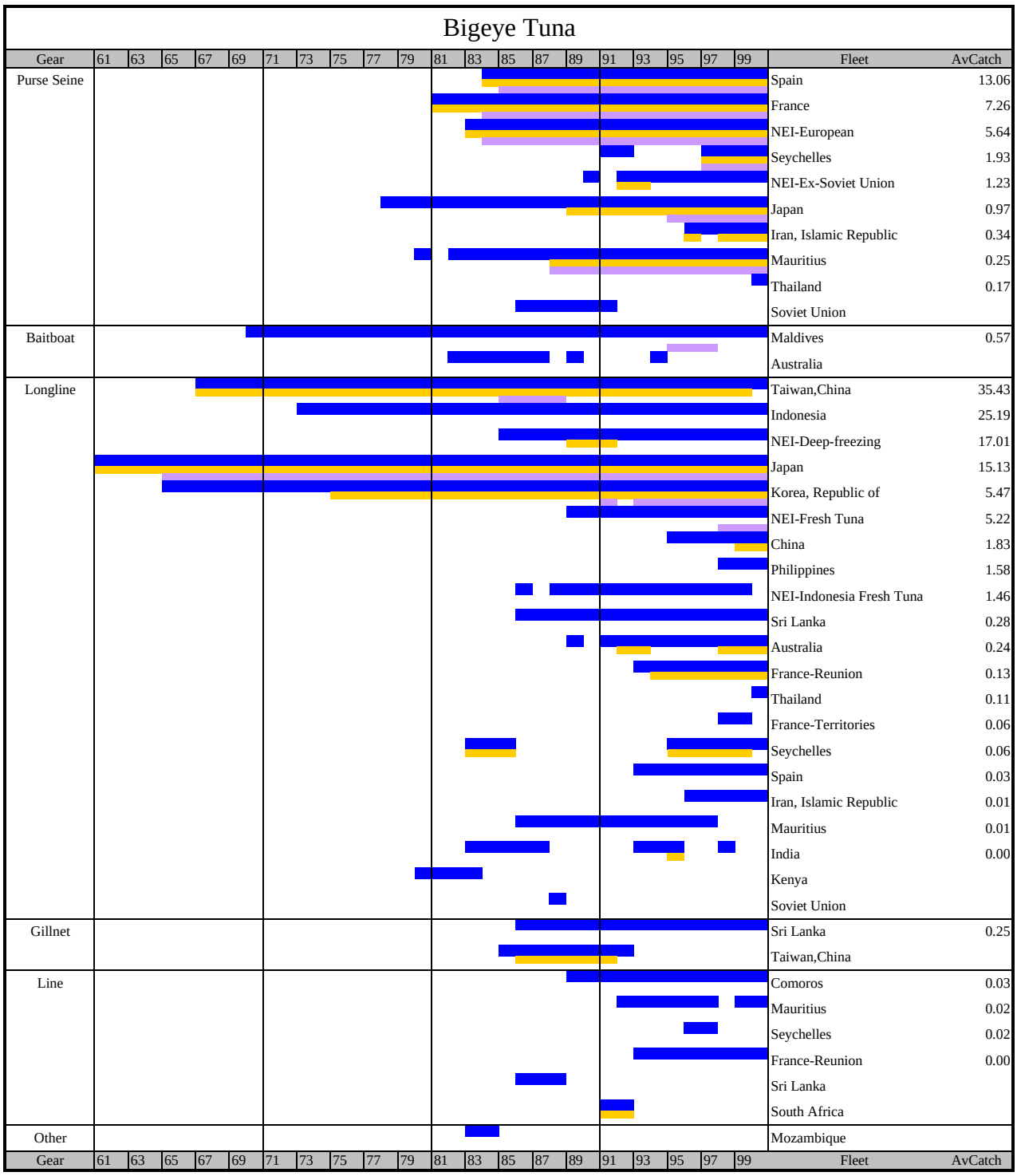
Data Catalogues

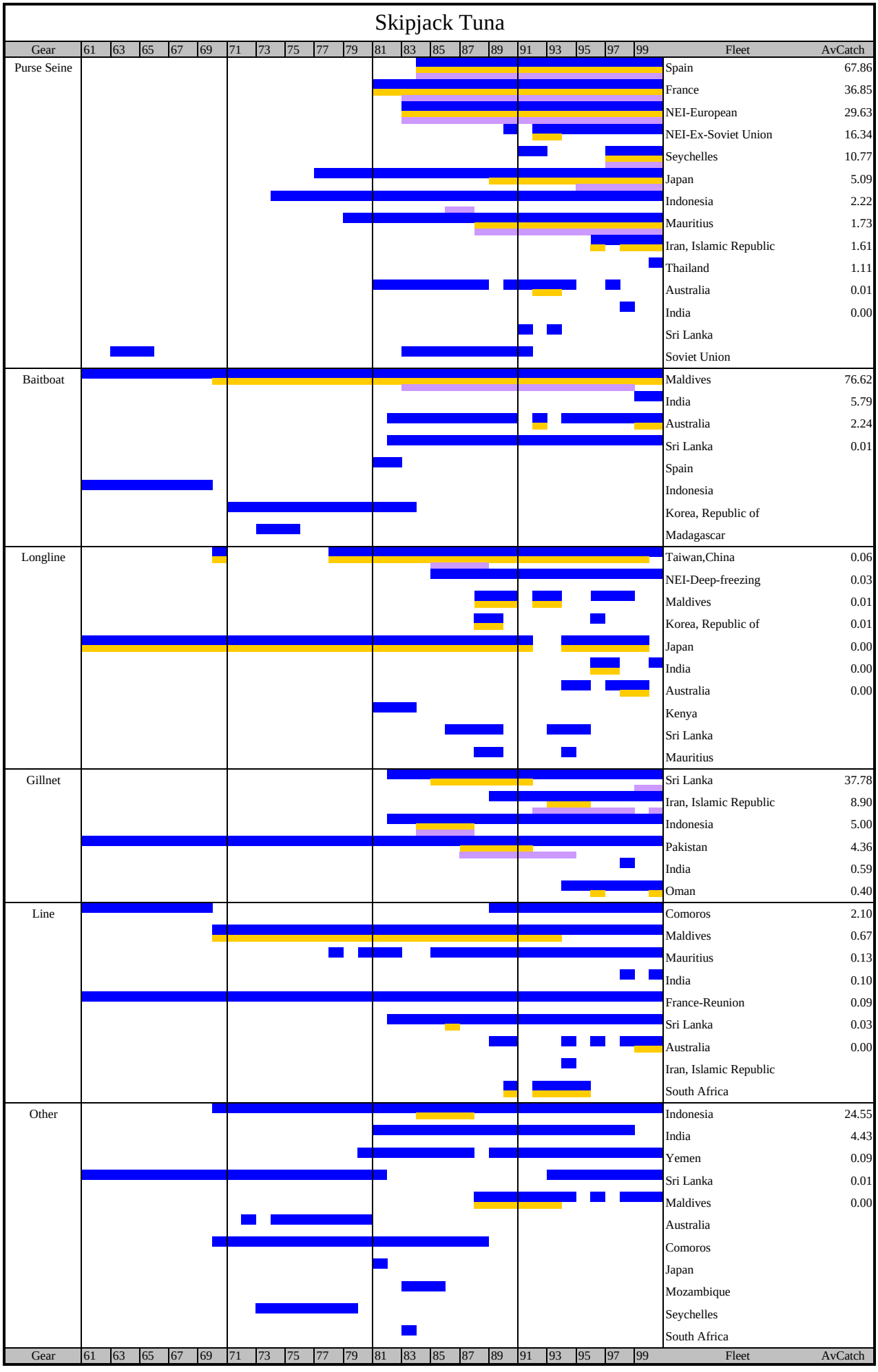
1/ Availability

(Availability of Nominal Catches, Catch and Effort and Size Frequency Statistics in the IOTC databases)

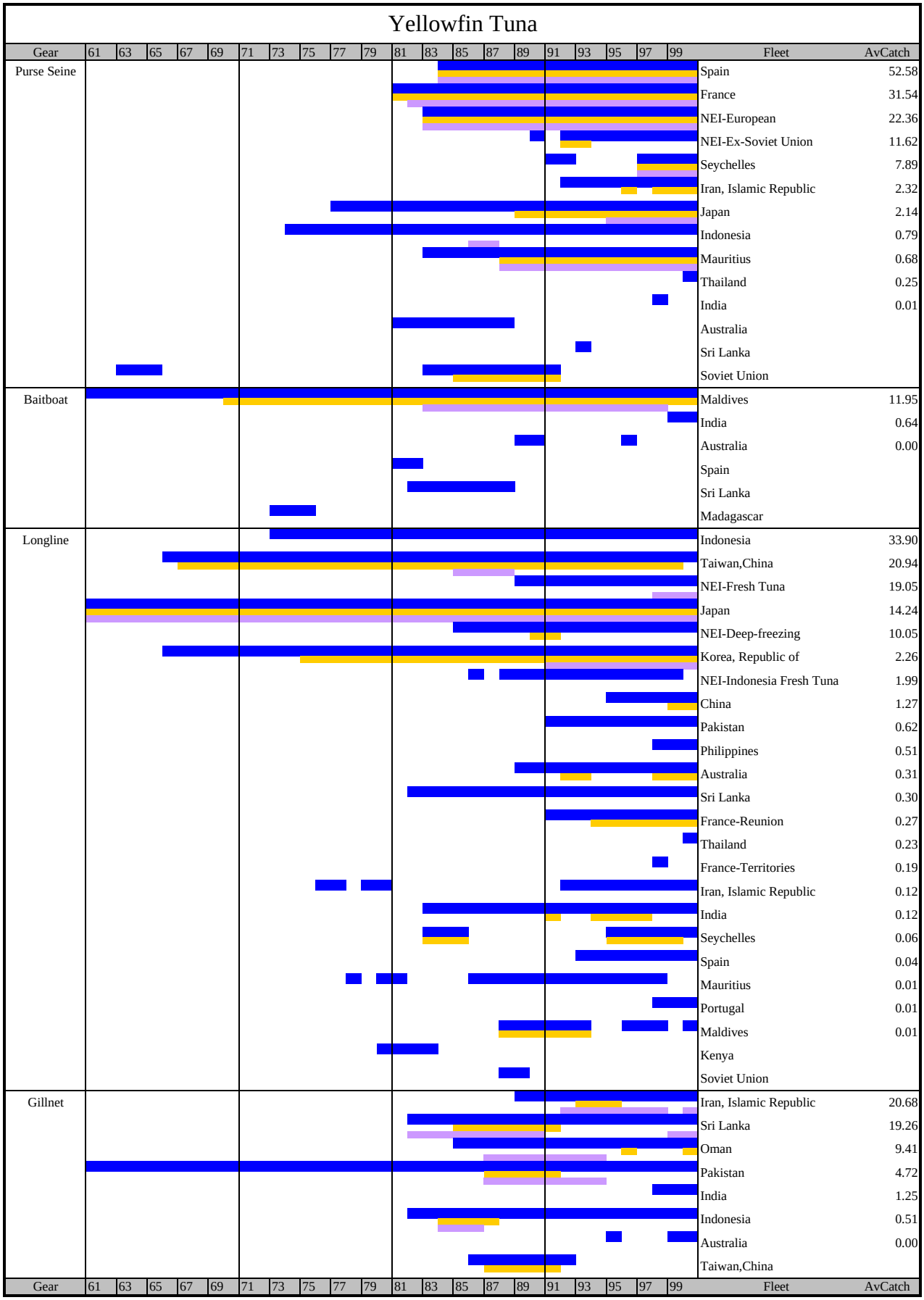
Leyend: SpC Mean catches of the Species for the last five years

Nominal catches available
Catch and Effort data available
Size frequency data available

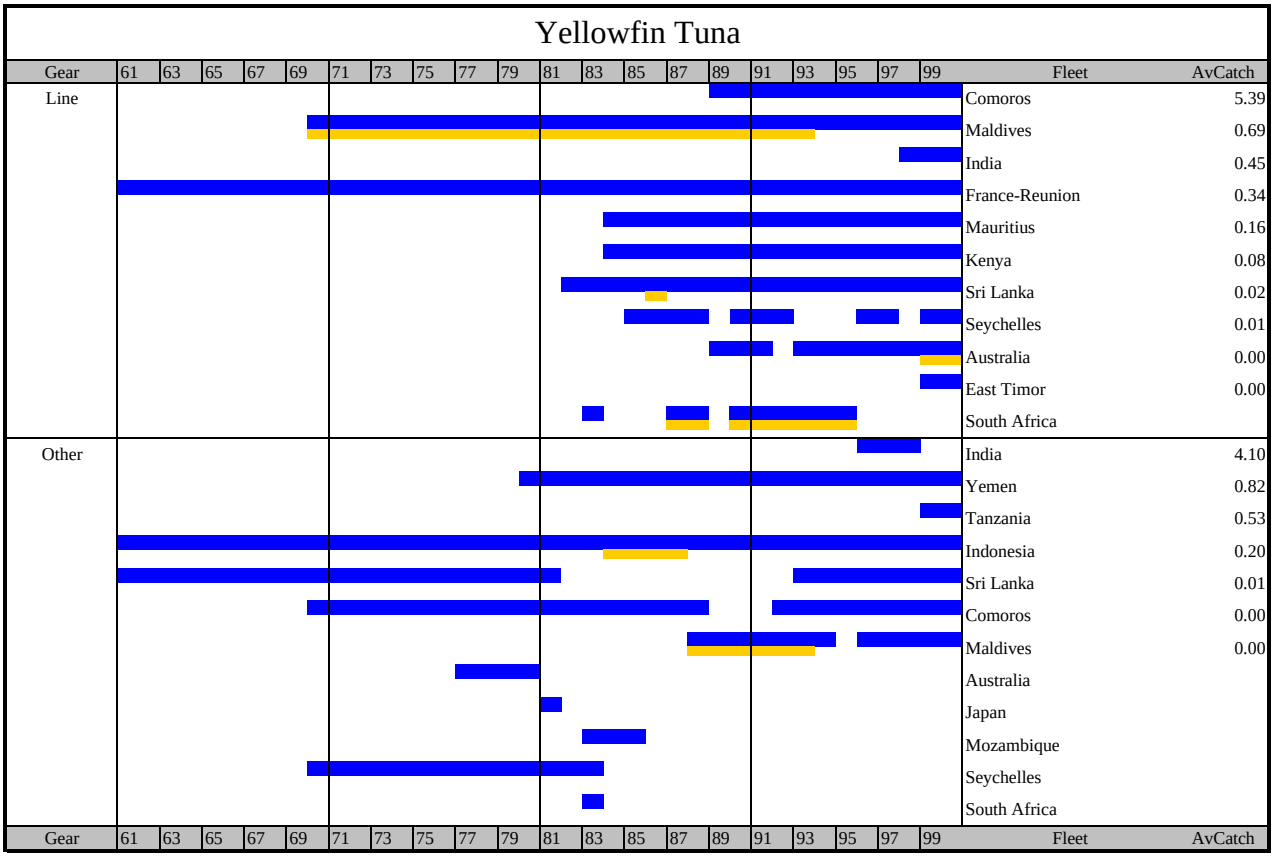

Bigeye Tuna
Gear
61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99
Fleet
AvCatch
Purse Seine
Spain 13.06
France 7.26
NEI-European 5.64
Seychelles 1.93
NEI-Ex-Soviet Union 1.23
Japan 0.97
Iran, Islamic Republic 0.34
Mauritius 0.25
Thailand 0.17
Soviet Union
Baitboat
Maldives 0.57
Australia
Longline
Taiwan,China 35.43
Indonesia 25.19
NEI-Deep-freezing 17.01
Japan 15.13
Korea, Republic of 5.47
NEI-Fresh Tuna 5.22
China 1.83
Philippines 1.58
NEI-Indonesia Fresh Tuna 1.46
Sri Lanka 0.28
Australia 0.24
France-Reunion 0.13
Thailand 0.11
France-Territories 0.06
Seychelles 0.06
Spain 0.03
Iran, Islamic Republic 0.01
Mauritius 0.01
India 0.00
Kenya
Soviet Union
Gillnet
Sri Lanka 0.25
Taiwan,China
Line
Comoros 0.03
Mauritius 0.02
Seychelles 0.02
France-Reunion 0.00
Sri Lanka
South Africa
Other
Mozambique
Gear
61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99
Fleet
AvCatch


Skipjack Tuna
Gear
61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99
Fleet
AvCatch
Purse Seine
Spain 67.86
France 36.85
NEI-European 29.63
NEI-Ex-Soviet Union 16.34
Seychelles 10.77
Japan 5.09
Indonesia 2.22
Mauritius 1.73
Iran, Islamic Republic 1.61
Thailand 1.11
Australia 0.01
India 0.00
Sri Lanka
Soviet Union
Baitboat
Maldives 76.62
India 5.79
Australia 2.24
Sri Lanka 0.01
Spain
Indonesia
Korea, Republic of
Madagascar
Longline
Taiwan,China 0.06
NEI-Deep-freezing 0.03
Maldives 0.01
Korea, Republic of 0.01
Japan 0.00
India 0.00
Australia 0.00
Kenya
Sri Lanka
Mauritius
Gillnet
Sri Lanka 37.78
Iran, Islamic Republic 8.90
Indonesia 5.00
Pakistan 4.36
India 0.59
Oman 0.40
Line
Comoros 2.10
Maldives 0.67
Mauritius 0.13
India 0.10
France-Reunion 0.09
Sri Lanka 0.03
Australia 0.00
Iran, Islamic Republic
South Africa
Other
Indonesia 24.55
India 4.43
Yemen 0.09
Sri Lanka 0.01
Maldives 0.00
Australia
Comoros
Japan
Mozambique
Seychelles
South Africa

Yellowfin Tuna



Yellowfin Tuna



Data Catalogues

2/ Quality

(Quality of the statistics held in the Nominal Catches, Catch and Effort and Size Frequency databases)

Nominal Catches Database: The higher or lower quality of each individual record (strata) was assigned depending on whether the catches reported (or estimated) in that strata (Country-RepCountry-Year-Gear-Area-Species-Source) were thought to accurately represent the actual catches occurred in the strata concerned.

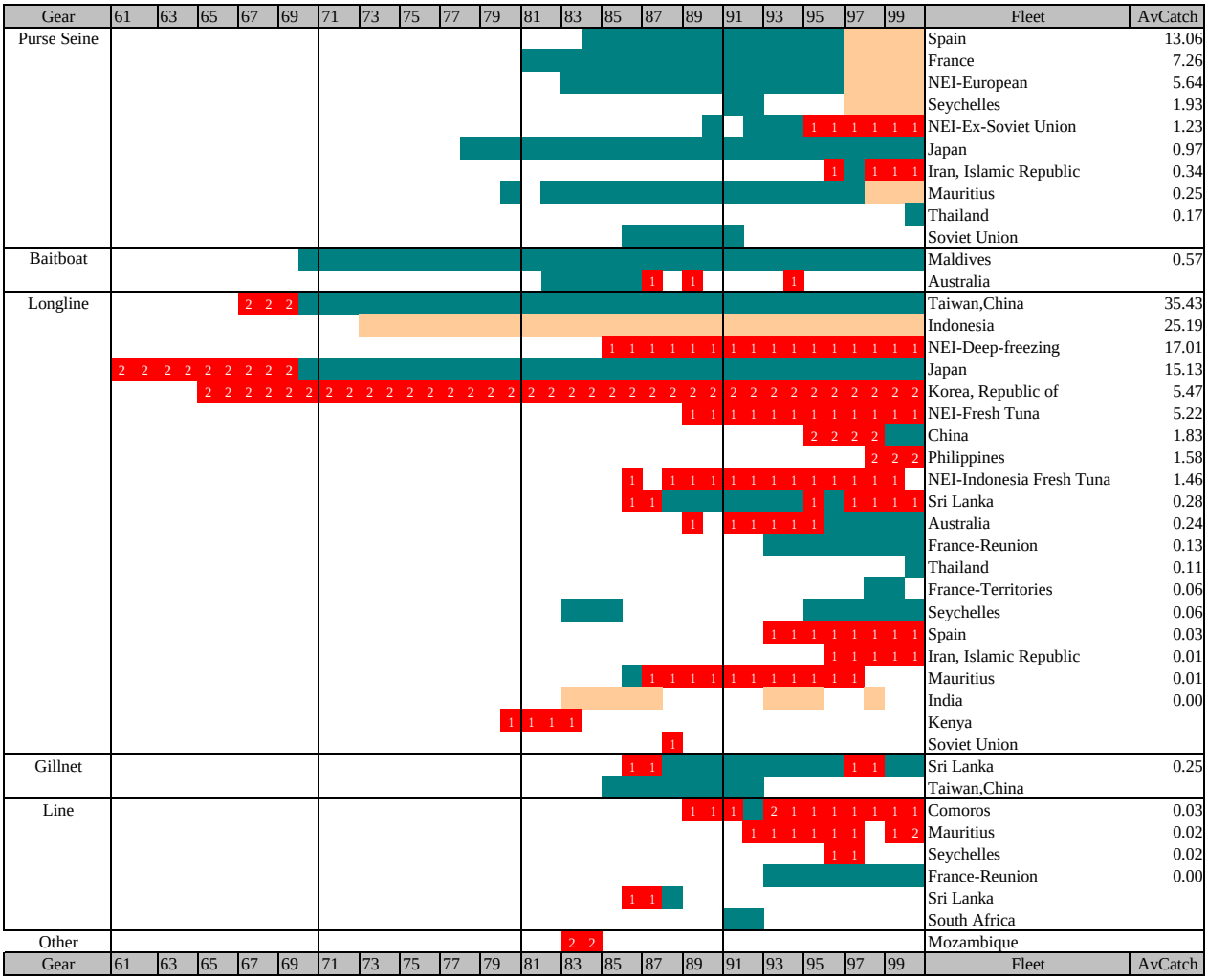
Catch and Effort Database: The higher or lower quality of each individual record (strata) was assigned depending on whether the catches reported (or estimated) in that strata (Country-RepCountry-Year-Gear-Area-Species-Source) were thought representative of the total catches occurred in the strata concerned.

Size Frequency Database: The higher or lower quality of each individual record (strata) was assigned depending on whether the specimens sampled in that strata (Country-RepCountry-Year-Gear-Area-Species-Source) were thought representative of all specimens caught in the strata concerned.

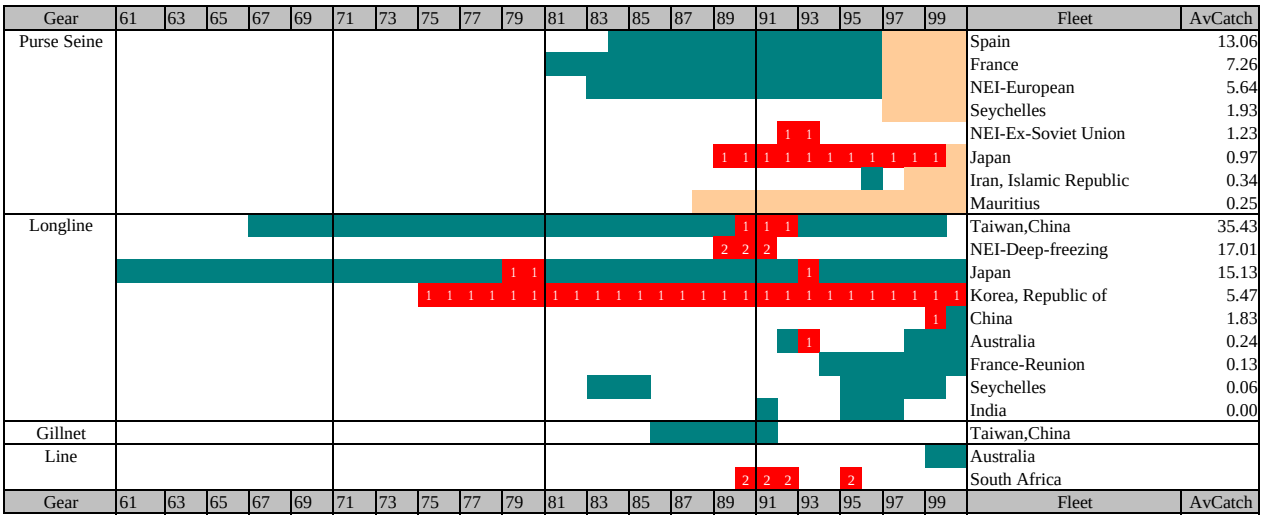
Leyend:	SpC	Mean catches of the Species for the last five years
	1	Poor quality
	2	Unknown quality
		Fair quality
		Good quality

Bigeye Tuna

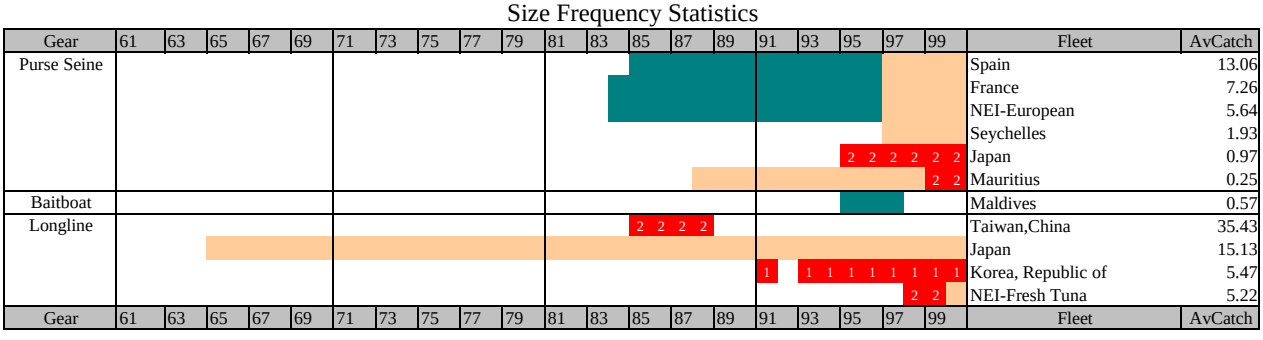
Nominal Catches



Catch And Effort Statistics



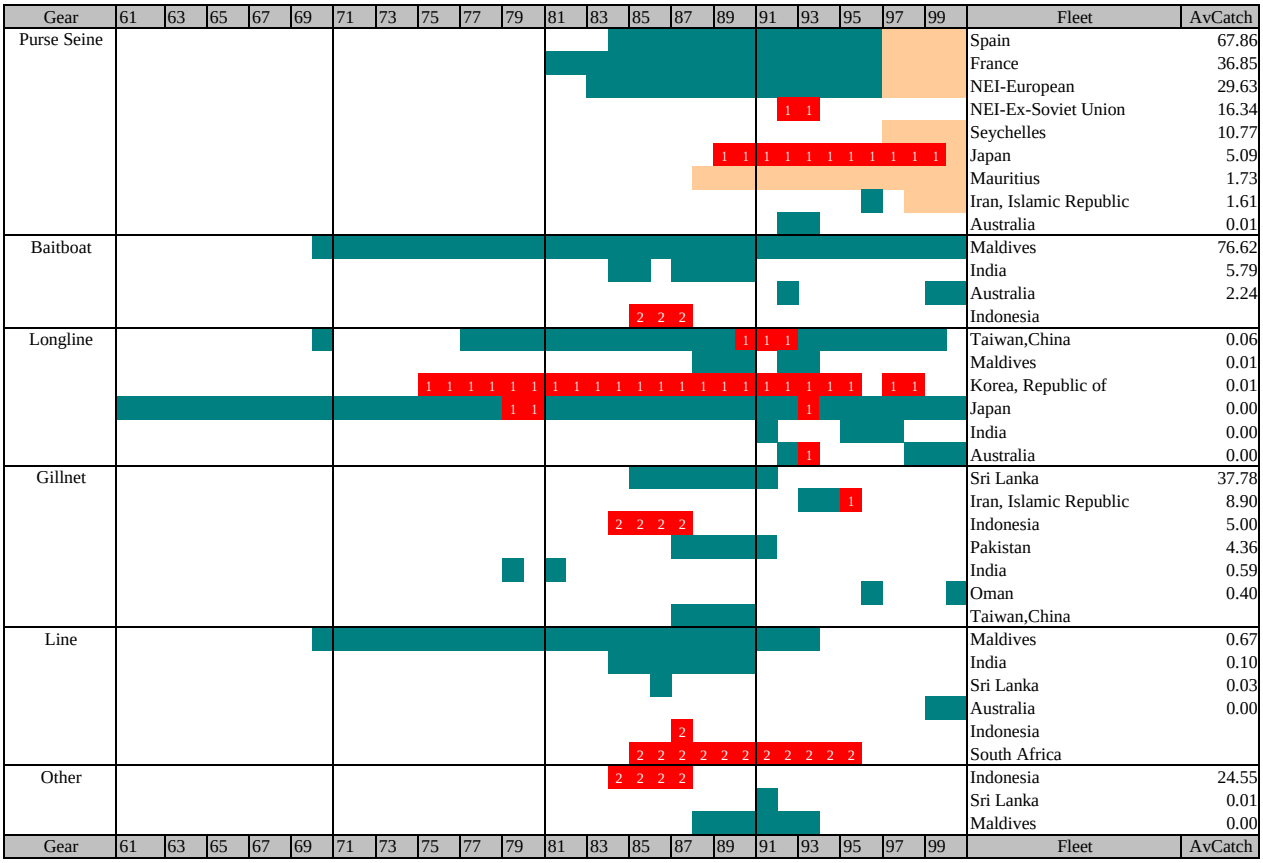
Size Frequency Statistics



Skipjack Tuna

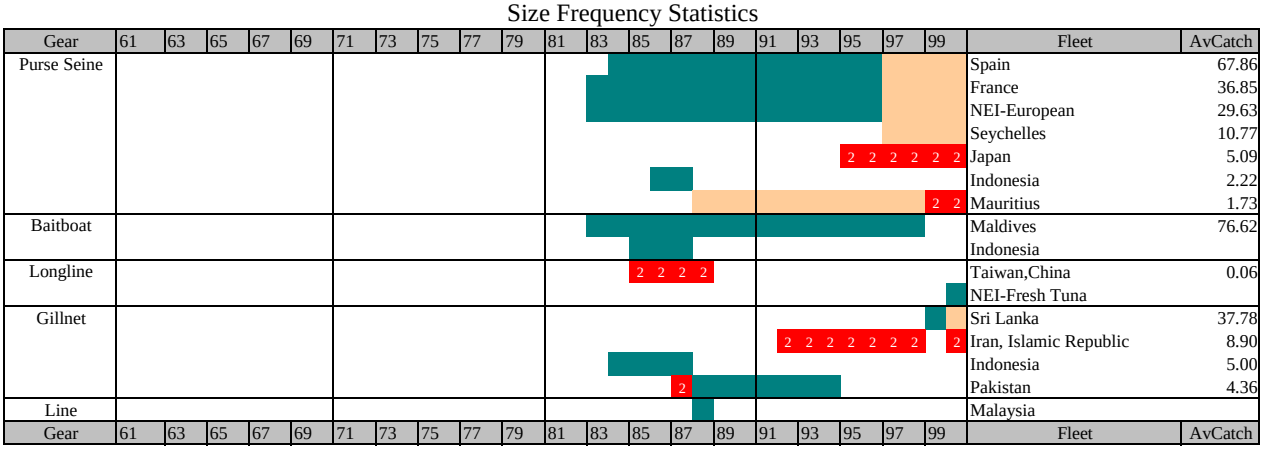
Nominal Catches

Catch And Effort Statistics



Gear	Fleet	AvCatch
Purse Seine	Spain	67.86
	France	36.85
	NEI-European	29.63
	NEI-Ex-Soviet Union	16.34
	Seychelles	10.77
	Japan	5.09
	Mauritius	1.73
	Iran, Islamic Republic	1.61
	Australia	0.01
Baitboat	Maldives	76.62
	India	5.79
	Australia	2.24
	Indonesia	
Longline	Taiwan,China	0.06
	Maldives	0.01
	Korea, Republic of	0.01
	Japan	0.00
	India	0.00
	Australia	0.00
Gillnet	Sri Lanka	37.78
	Iran, Islamic Republic	8.90
	Indonesia	5.00
	Pakistan	4.36
	India	0.59
	Oman	0.40
	Taiwan,China	
Line	Maldives	0.67
	India	0.10
	Sri Lanka	0.03
	Australia	0.00
	Indonesia	
	South Africa	
Other	Indonesia	24.55
	Sri Lanka	0.01
	Maldives	0.00

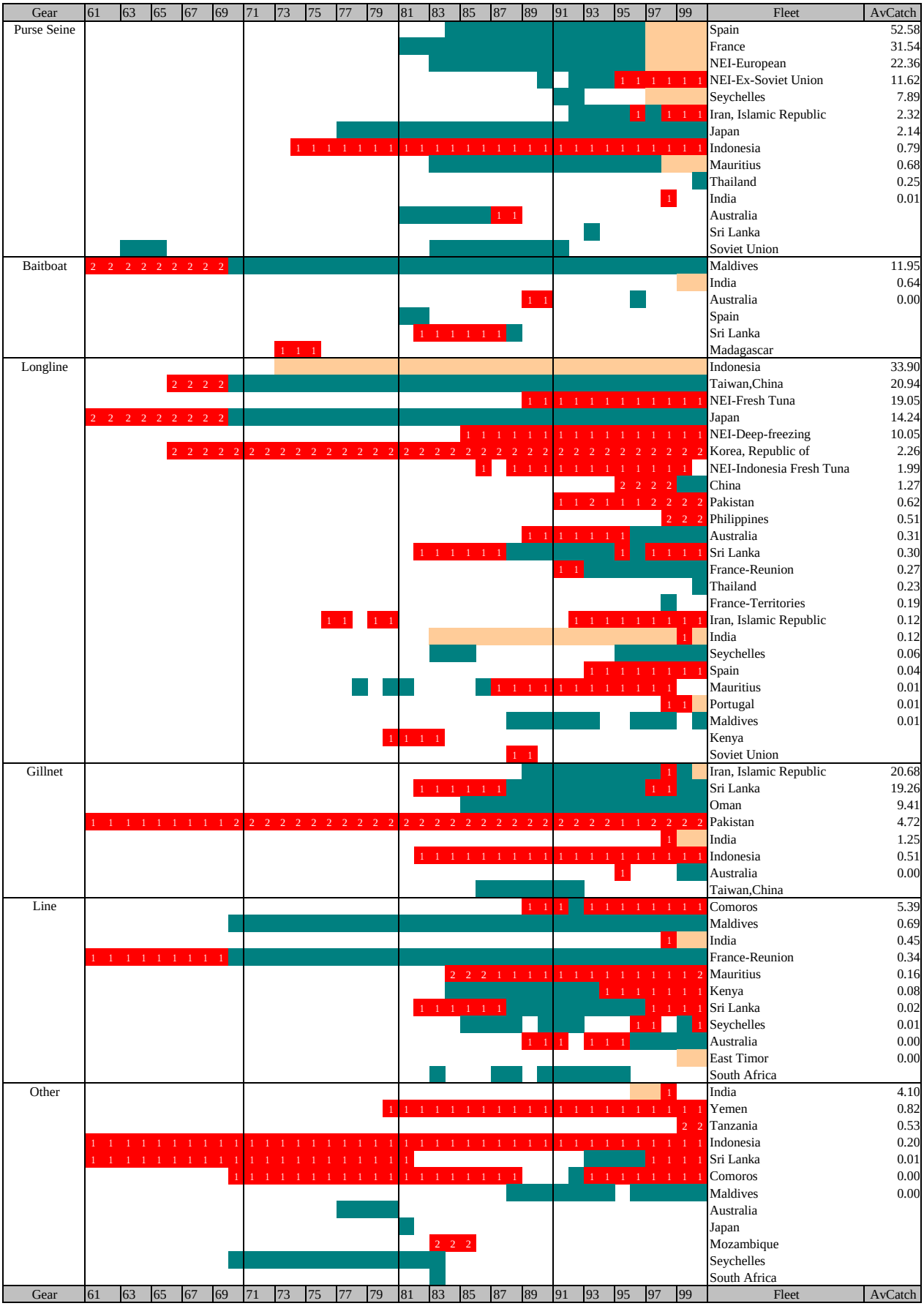
Size Frequency Statistics



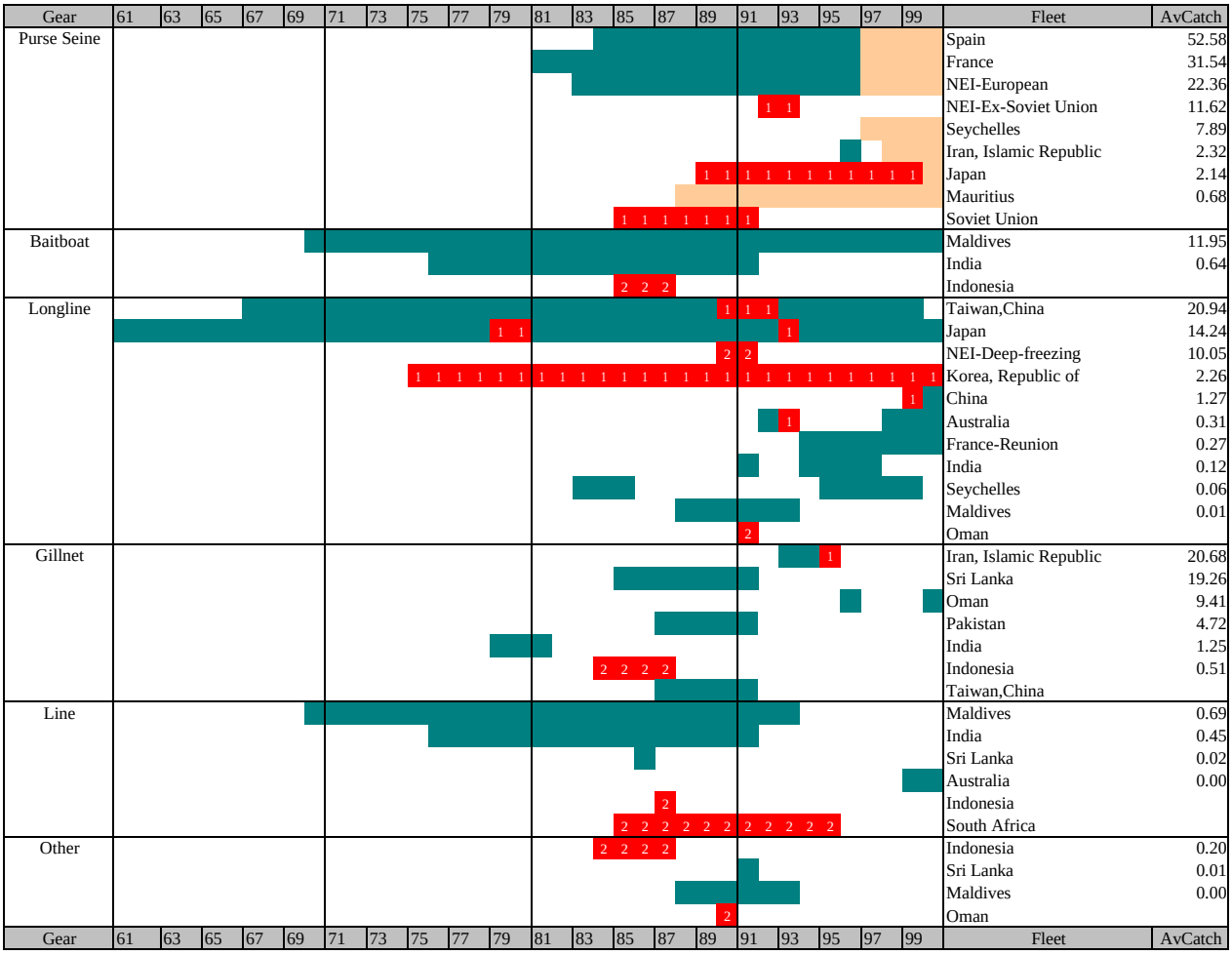
Gear	Fleet	AvCatch
Purse Seine	Spain	67.86
	France	36.85
	NEI-European	29.63
	Seychelles	10.77
	Japan	5.09
	Indonesia	2.22
	Mauritius	1.73
Baitboat	Maldives	76.62
	Indonesia	
Longline	Taiwan,China	0.06
	NEI-Fresh Tuna	
Gillnet	Sri Lanka	37.78
	Iran, Islamic Republic	8.90
	Indonesia	5.00
	Pakistan	4.36
Line	Malaysia	

Yellowfin Tuna

Nominal Catches

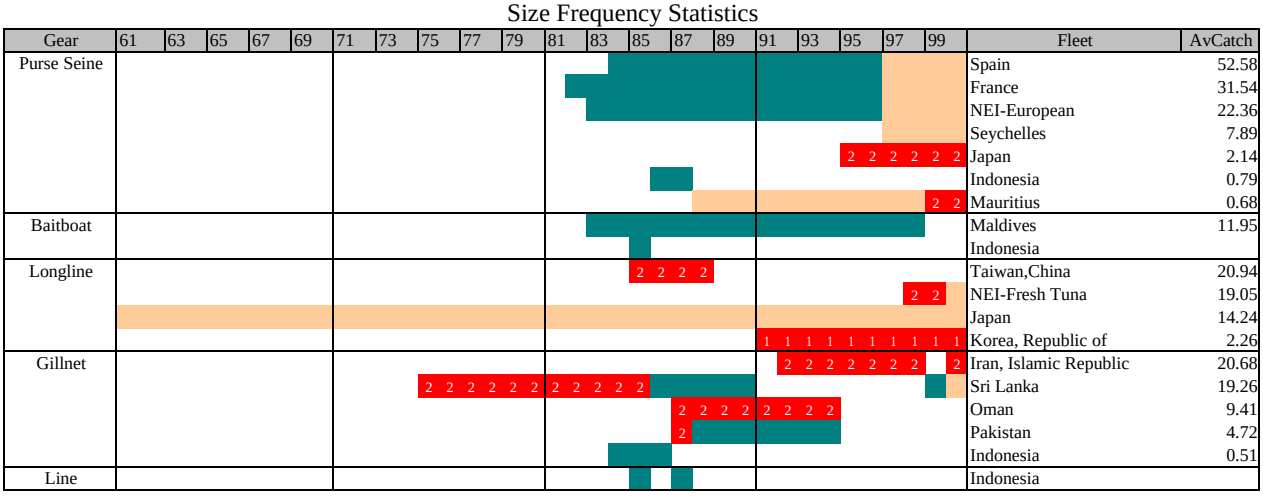


Catch And Effort Statistics



Gear	Fleet	AvCatch
Purse Seine	Spain	52.58
	France	31.54
	NEI-European	22.36
	NEI-Ex-Soviet Union	11.62
	Seychelles	7.89
	Iran, Islamic Republic	2.32
	Japan	2.14
	Mauritius	0.68
	Soviet Union	
Baitboat	Maldives	11.95
	India	0.64
	Indonesia	
Longline	Taiwan,China	20.94
	Japan	14.24
	NEI-Deep-freezing	10.05
	Korea, Republic of	2.26
	China	1.27
	Australia	0.31
	France-Reunion	0.27
	India	0.12
	Seychelles	0.06
	Maldives	0.01
	Oman	
Gillnet	Iran, Islamic Republic	20.68
	Sri Lanka	19.26
	Oman	9.41
	Pakistan	4.72
	India	1.25
	Indonesia	0.51
	Taiwan,China	
Line	Maldives	0.69
	India	0.45
	Sri Lanka	0.02
	Australia	0.00
	Indonesia	
	South Africa	
Other	Indonesia	0.20
	Sri Lanka	0.01
	Maldives	0.00
	Oman	

Size Frequency Statistics



Gear	Fleet	AvCatch
Purse Seine	Spain	52.58
	France	31.54
	NEI-European	22.36
	Seychelles	7.89
	Japan	2.14
	Indonesia	0.79
	Mauritius	0.68
Baitboat	Maldives	11.95
	Indonesia	
Longline	Taiwan,China	20.94
	NEI-Fresh Tuna	19.05
	Japan	14.24
	Korea, Republic of	2.26
Gillnet	Iran, Islamic Republic	20.68
	Sri Lanka	19.26
	Oman	9.41
	Pakistan	4.72
	Indonesia	0.51
Line	Indonesia	