South Pacific Regional Fisheries Management Organisation

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Comparison of Catch Data Compiled by FAO and SPRFMO for Major Species Under SPRFMO Competence

Luca Garibaldi (FAO) and Susie Iball (SPRFMO)

1. Introduction

The FAO Fisheries and Aquaculture Statistics and Information Service (FIPS) collates annual global fishery statistics on catch production from both areas of national jurisdiction, for example Exclusive Economic Zones (EEZs), as well as from High Seas areas.

The Interim Secretariat of South Pacific Regional Fisheries Management Organisation (SPRFMO) collects, collates and validates reports on various fisheries data, including catch data, from the High Seas areas of the South Pacific Ocean defined in the recently adopted Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean[1].

In order to examine the consistency of data held on the FAO and SPRFMO databases, a comparison of the annual catch data held on each database was made. This comparative exercise focused on mackerel species (*Trachurus* and *Scomber*), squid, orange roughy and alfonsino. Any gaps and/or discrepancies found are highlighted and discussed in sections 4 and 5 of this paper. The raw data are included in Appendix A.

2. Catch data collected and compiled by the two organizations

2.1 FAO

Catch production statistics are reported to FAO-FIPS by national correspondents from the appropriate ministry or institution. In some cases these data are complemented with other sources, mostly information provided by Regional Fishery Bodies (RFBs). Presently, the FAO capture database[2] includes data for the 1950-2008 period by three variables: country, species item, and FAO major fishing area.

National statistical correspondents are requested to return nominal catches, *i.e.* live weight equivalent of landings, of the previous year by 31 August but, due to late submissions by several countries, annual updates of the FAO capture database are usually released at the end of February of the following year. Data reported by countries are carefully checked and validated, and when doubtful data are submitted, the national correspondent is consulted for

[1]Refer to the SPRFMO Convention text
[2]The dataset can be downloaded at http://www.fao.org/fishery/statistics/software/fishstat/en together with the FISHSTAT+ software to consult it.

clarification. However, the quality of the FAO statistics is dependant upon the accuracy and reliability of the statistics collected nationally and provided to FAO.

2.2 SPRFMO

Data Collection & Data Standards
The negotiations on the SPRFMO Convention were concluded in November 2009, and the Convention has not yet entered into force.

SPRFMO aims to collect current and historical data in sufficient detail to facilitate effective stock assessment. To date, data submissions have been provided to SPRFMO directly by members of participating delegations to the SPRFMO negotiations and the Preparatory Conference.

In order to promote the collection of standardised, quality data, SPRFMO's Interim Secretariat has already established a set of interim data standards[3], as well as detailed Excel data submission templates. These standard submission templates are available on the SPRFMO website[4]. They are not always utilised by participants when making submissions as during the current interim period, both data provision and the use of standard submission templates are voluntary. Accordingly, SPRFMO data submissions are sometimes received in variable and/or non-standard formats.

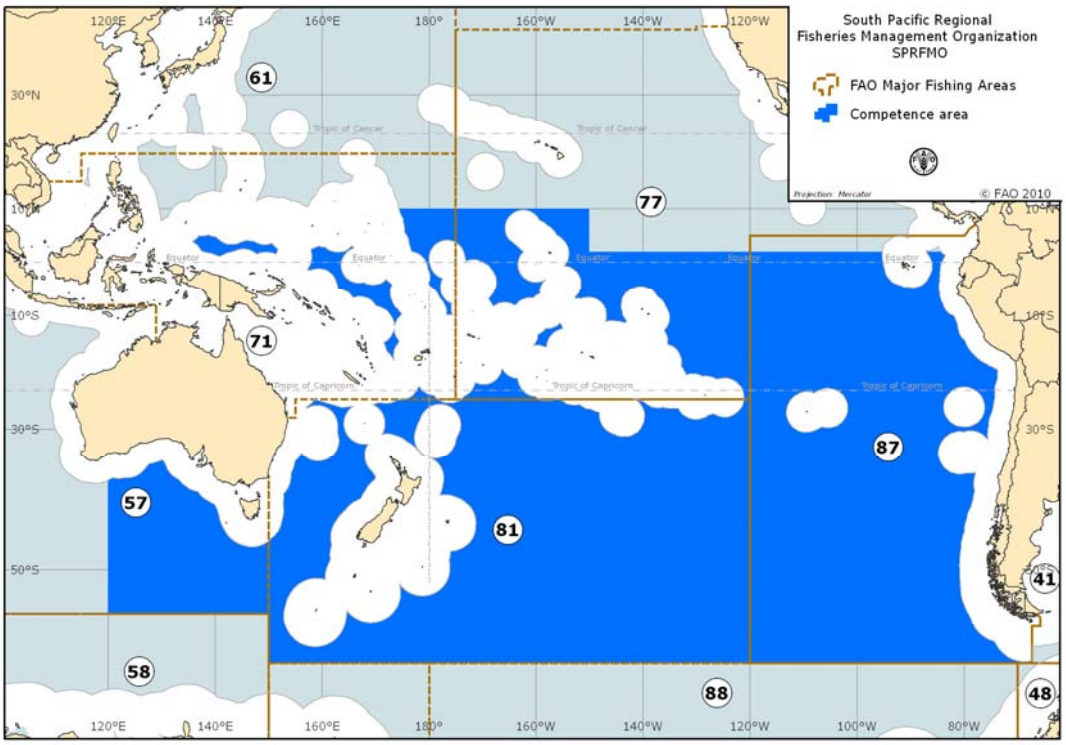
Types of Data Collected
SPRFMO collects a variety of catch data including annual catch, and sometimes (or alternatively) annual catch in 1x1 degree and 5x5 degree squares, and detailed (by tow/ set) catch data by species or species group. The previous year's catch data are due by 30 June of the current year. These catch data are usually grouped by area (*e.g.* FAO statistical area noting the High Seas and/or EEZ components), and fishing method. SPRFMO currently holds annual catch data totals from 1969 at the earliest. Only SPRFMO's annual catch data holdings are considered in this comparative exercise, although these may sometimes have been derived by summing finer scale data.

2.3 Area of Interest

Figure 1 below shows the overlap between the SPRFMO Convention Area and the FAO major fishing areas for statistical purposes. Boundaries of the FAO-defined statistical areas and the SPRFMO Convention Area generally do not coincide, except for some parts of the southern SPRFMO boundary.

[3]Standards for the collection, reporting, verification and exchange of data 6 October 2008 (as amended on 18 May 2009); http://www.southpacificrfmo.org/data/
[4]SPRFMO standard data submission templates; http://www.southpacificrfmo.org/standard-submission-templates/

Figure 1[5] SPRFMO Area of Competence and FAO Major Fishing Areas for statistical purposes in the South Pacific



FAO
The FAO database statistical areas shown in Figure 1 above generally combine both High Seas and seas of national jurisdiction within any one FAO statistical area.

SPRFMO
In general, the data reported to SPRFMO only include High Seas catches, as the SPRFMO Convention Area covers only High Seas. However, some EEZ catches have also been reported, especially for mackerel species.

The SPRFMO Convention area incorporates all or parts of the High Seas of five FAO statistical areas:

- minor portions of FAO 57, 71, and 77,
- all of the high seas portion of FAO 81,
- the majority of FAO 87.

[5]The Interim Secretariat has made the above map available for information purposes only. It is a pictorial illustration of the area of application of the Convention that is properly described in legal terms in Article 5. The map is not part of the Convention text and has no legal status. It is not intended to reflect exactly the maritime spaces of adjoining coastal states and cannot be considered to constitute recognition of the claims or positions of any of the participants in the negotiations leading to the adoption of the Convention concerning the legal status and extent of waters and zones claimed by such participants.

3. Criteria adopted in the comparison of the FAO and SPRFMO catch data

3.1 Period covered

- Data were compared for the 1970-2008 period
- Only annual total catch by species were compared
- For the purposes of this paper, data referred to as "historical" are pre mid 1990s catch data.

3.2 Participant countries

European Union

- In the SPRFMO database, catch totals for European Union (EU) countries are reported as a single combined annual tonnage, while in the FAO database catches are separated by country. Data for EU countries in the FAO database were summed to allow comparison.

Russian Federation/ USSR

- In the SPRFMO database, the Russian Fed.'s data submission includes data for the USSR up until about 1990, as well as data for the Russian Fed. post the dissolution of the USSR (occurred between approximately 1990 – 1991). SPRFMO holds some data for the new Republics separately post approximately 1990.
- The FAO database holds data for the USSR until 1987, and from 1988 data are separated into the new Republics (*i.e.* Estonia, Georgia, Latvia, Lithuania, Russian Fed., and Ukraine). For comparative purposes, FAO data for these countries have been aggregated in several cases.

Baltic States

- FAO catch data for late 1980s - early 1990s by the Baltic States (Estonia, Latvia and Lithuania) were included in comparisons to those of the Russian Fedn in the SPRFMO database, while for more recent years, they were grouped with those of the EU countries. This is because the Baltic States joined the EU in 2004.

Ukraine prior to USSR Dissolution

- SPRFMO has received an independent data submission from the Ukraine including data from 1978 onwards. SPRFMO has also been advised that, for years prior to the dissolution of the USSR (probably until 1990), Ukraine catches are also included within the Russian Fedn's catch data submission.
- As the aim of this exercise is to identify any gaps/ discrepancies between total catch statistics (and avoid double-counting for known cases), SPRFMO Russian Fedn data was compared directly to FAO USSR data for years prior to the USSR's dissolution (as Ukraine data should be included within both of these datasets).
- The SPRFMO Ukraine data could be compared to FAO Ukraine submissions to identify any gaps/ discrepancies for the period following the period of dissolution of the USSR.

3.3 Fishing areas

In order to facilitate comparisons:

- All data for species relevant to SPRFMO from areas FAO 81 and FAO 87 were selected from the FAO database,
- For FAO 57, only data from Australia were included,
- Data for FAO 71 and 77 were excluded given that the SPRFMO area of competence covers only a minor part of those FAO areas, making it highly probable that FAO recorded historical catches by Distant Water Fishing Nations (DWFNs), for example

Japan, Korea Rep., Russian Fedn., Ukraine, USSR, etc., may have been caught outside the SPRFMO area.

3.4. Species

Some data have been submitted to SPRFMO labelled simply as “mackerel”. In some cases, it has not yet been possible to confirm whether these catch data represent mackerel of genus *Trachurus* or *Scomber*. This makes comparison of some historical mackerel catches difficult.

Some mixed species categories used by FAO (e.g. ‘Loliginidae, Ommastrephidae’) may include catches of both coastal and offshore species taken within or outside EEZs/ areas of national jurisdiction.

RESULTS

4. Major discrepancies and lack of data by species and country or fishing entity

Note
In cases where less than 3 vessels were fishing, SPFRMO data are designated as an ‘X’ due to confidentiality constraints. Data cannot be compared in these cases.

4.1 *Trachurus* spp (see Table 1 in Appendix A)

FAO lacks:
- Belize, Cook Islands, Faroe Islands, and Vanuatu: all data
- China: data for 2000-01

SPRFMO lacks:
- Chile: data before 1985 for FAO 87
- Ghana: all data (2000-01 in the FAO database – db – for FAO 87)
- Japan: all data (1971-2003 in the FAO db) for *Trachurus* spp from FAO 81
- Korea Rep.: all data (FAO db lists all data for 1977-1978 and 1984-2008) for *Trachurus* spp from FAO 81

Major discrepancies:
- Cuba and Ecuador: discrepancies in historical data
- EU: except for 1980-85, catches by EU countries in the FAO db are significantly lower than in the SPRFMO db
- New Zealand: there appear to be significant differences or gaps between all years – see comment in section 5.2.1
- Russia + Ukraine: SPRFMO data are much greater for 1980-86 and recent years with the exclusion of 2006 and 2007 for FAO 87

4.2 *Scomber* spp (see Table 2 in Appendix A)

FAO lacks:
- Belize, Faroe Islands, and Vanuatu: all data

SPRFMO lacks:
- Chile: data prior to 1985
- Cuba: all data (1979-82 in the FAO database)
- Ecuador: all data (1970-2008 in the FAO db)
- Ghana: all data (2000-01 in the FAO db)

- Japan: all data (1974-1995 in the FAO db) for *Scomber australasicus* from FAO 81
- Korea Rep.: all scattered data (4 years) in the FAO db for *Scomber australasicus* from FAO 81
- Ukraine: 1991-2006 data for *Scomber australasicus* from FAO 81

Major discrepancies:

- EU: data in the FAO db are lacking or significantly lower than in the SPRFMO db for the 1975-1992 and 2005-08 periods
- New Zealand: SPRFMO records only small quantities – see comment in section 5.3.7
- Russian Fed./USSR: SPRFMO data are greater for 1983-87 (1988 is not displayed) and 2006, FAO data are greater for 1991-92

4.3 Squid (see Table 3 in Appendix A)

FAO lacks:

- Belize: all data
- China: datum for 2001
- Chinese Taipei[6]: 1992, 2002-08 data for *Dosidicus gigas*
- EC: data for 1989-91

SPRFMO lacks:

- Australia, Colombia, Cuba, Ecuador: all data

Major discrepancies:

- Japan: FAO data significantly higher, SPRFMO misses several years, FAO db also includes data for *Nototodarus sloani*
- Korea Rep.: For *D. gigas*, FAO data are lower, SPRFMO lacks 1998 and 2006 data
- Ukraine: for *Nototodarus* spp FAO lacks 1979-80 and SPRFMO lacks 1990 and 2006

4.4 Orange roughy (see Table 4 in Appendix A)

FAO lacks:

- Belize: all data
- EU: datum for 1981

SPRFMO lacks:

- Norway: all data
- Ukraine: 2006 datum

Major discrepancies:

- China: FAO data are from FAO 81, SPRFMO's from FAO 87: FAO data are lower in 2002-03 and lacking for 2001 and 2004-07
- Korea Rep.: FAO lacks 2000 and 2007, SPRFMO's datum for 1999 is not displayed, but is lower than the corresponding FAO value.

[6]Taiwan Prov. of China in FAO terminology

4.5 Alfonsino (see Table 5 in Appendix A)

FAO lacks:
- Australia, Belize: all data
- Ukraine: 1979-80 data from FAO 81 and all data from FAO 87

SPRFMO lacks:
- China, Korea Rep.: all data

Major discrepancies:
- Chile: FAO lacks 1988 datum, for all other years SPRFMO lacks data or data are much lower, as they probably include only high seas catches
- EU/Lithuania: FAO includes 2007 datum by Lithuania, while EU data for 2007/08 are not displayed in the SPRFMO db as totals are for less than 3 vessels.

4.6 Other species (see Table 6 in Appendix A)

The FAO capture database also includes data for other species items (i.e. *Allocyttus niger*, *Dissostichus eleginoides*, *Epigonus telescopus*, *Hyperoglyphe antarctica*, *Neocyttus rhomboidalis*, Oreosomatidae, *Paratrachichthys trailli*, *Polyprion oxygeneios*, *Pseudocyttus maculatus*, *Pseudopentaceros richardsoni*, and Trachichthyidae) that may be of interest to SPRFMO.

DISCUSSION

5. Potential Reasons for Inconsistencies

5.1 Overview

There are clearly differences between the annual catch totals held in the FAO and SPRFMO databases.

Ideally, catch totals held on the two databases should be consistent. Greater levels of consistency might be expected for DWFN fishing in areas FAO 81 and 87 (areas that fall totally or almost totally within the Convention Area), which do not have EEZs/areas of national jurisdiction within the Convention Area.

For those participants that do have EEZs/ areas of national jurisdiction within the Convention Area, or for FAO area 57 (FAO 57 is only partially included within the Area; FAO 71 and 77 excluded from this comparison), it is more difficult to make direct comparisons between the two databases' catch totals because of the greater likelihood that totals relate to different geographical areas.

As well as potential inconsistencies due to differing spatial coverage, there are a range of other factors that could potentially contribute. These have been grouped as gaps or discrepancies and are discussed below.

5.2 Information Gaps

An information gap occurs in cases where data appear to be missing.

5.2.1. Data are not submitted to either FAO or SPRFMO

The submission of information to SPRFMO is voluntary while Member Nations and Associate Members are requested, in accordance to Article XI of the FAO Constitution, to communicate regularly to FAO statistics and other information published by the government. Information gaps over different time periods may result from the non-

submission of data to either agency for that time period. For example, SPRFMO participants do not often voluntarily submit EEZ catch data to SPRFMO as its Convention Area covers only High Seas. Therefore, where a participant has only EEZ (and no High Seas) catch records, and EEZ records are not submitted to SPRFMO, this may appear as an information gap/ discrepancy in the SPRFMO db.

Example
New Zealand reported to SPRFMO only its estimated EEZ tonnage of *T. murphyi*, but NZ's total EEZ catch of *Trachurus* species is also composed of *T. declivis* and *T. novaezelandiae;* EEZ catches of these latter two species have not been reported to SPRFMO. This probably accounts for the discrepancy between the FAO and SPRFMO catch data for New Zealand's *Trachurus* catch in FAO 81.

5.2.2 Data have been aggregated differently between participating members

Where there is a group of members and/or countries belonging to one Federation or Union, FAO or SPRFMO may not have received submissions that include all participating members. Note that the opposite scenario is also possible – if participating members have submitted data separately, and the parent Federation or Union has also submitted an amalgamated total for its member states, then the catch may have been included in both sets of totals presented.

5.3 Information Discrepancies

Discrepancies occur where the two sets of information presented appear to differ.

5.3.1 Transcription Errors

Errors such as transcription errors could be present in the submitted data.

Example
A possible example of this situation could be the 2003 *Scomber japonicus* totals recorded for Peru: 94,384 is recorded by FAO versus 93,384 recorded by SPRFMO. The figures are very similar and should be re-checked with the participant.

5.3.2 Status of the Data: Preliminary versus Final Submissions

Preliminary submission figures may not have been updated to final corrected figures.

Example
For 2008, the *Dosidicus gigas* catch reported to SPRFMO by Chinese Taipei[7] was a preliminary figure. This preliminary figure still needs to be confirmed as a final value or updated.

5.3.3 Species Names

Lack of clarification of species names in some SPRFMO submissions, especially for some mackerel species, sometimes makes it unclear as to which species catch totals (*e.g. Trachurus* species or *Scomber* species) these should compared with.

Example
One case is that of 'Pacific mackerel' reported to SPRFMO by the Russian Federation. For at least the years 1991 -1995, the figures submitted to SPRFMO for "Pacific mackerel" exactly match those figures which the FAO hold for *Scomber australasicus* for the Russian Fed. Therefore, from this comparative exercise it appears that the species named "Pacific mackerel" probably refers to *S. australasicus.* Supporting references

[7] Taiwan Prov. of China in FAO terminology

were found where the usual species name given to "Pacific mackerel" is *S. australasicus*. This should be confirmed with members of the Russian Fed.

5.3.4 Submission Units

Annual catch totals may have been submitted in effectively different units. FAO catches are recorded as nominal catch, but it has not yet been confirmed that all SPRFMO catch has been submitted as nominal catch. For example, some SPRFMO catch totals represent the sum of all 5x5 degree square data for a calendar year, and it has not been verified that these finer scale 5x5 catch totals represent nominal catch weights.

5.3.5 Information Sources

Submissions could potentially differ as a result of data having been submitted to FAO and SFRFMO by different national agencies. A comparison of the data contact lists showed that there is an exact match for only two data correspondents: New Zealand and Chinese Taipei[8].

For seven submitters there are some minor differences (e.g. the same ministry but different departments, or the same office but an alternative contact person, etc.). In eight cases (Belize, Cuba, Ecuador, EU, Faroe Islands, French Territories, Peru, and the Russian Federation) the data sources for FAO and SPRFMO appear quite different, and vary by fisheries department, international relations office, or by national research institute.

For the EU, FAO has a national correspondent for fishery statistics in each EU Member State coinciding with the data provider to EUROSTAT, the statistical office of the European Commission. As stated in a summary of the EU legislation[9], in general the EU represents all its Members at Regional Fisheries Bodies (RFBs) but requests Members States to send statistical data relevant to fisheries management directly to each RFBs (*e.g.* ICCAT, IOTC, etc.). However, to date, annual catch statistics made available by the EU to SPRFMO have generally been aggregated over all Member States, and SPRFMO receives EU submissions directly from the European Commission.

5.3.6 Amalgamations of Countries/States into Federations/ Unions

Differently grouped data in the two databases for different time periods, for the USSR and ex-USSR Republics, and possibly also for the EU, make it more difficult to compare the historical data for this set of participants (see section 3.2). This situation could also result in apparent data discrepancies.

Example

The EU have recently submitted historical data (dating back to 1988 – 1999) for Lithuanian-caught *Trachurus murphyi* as part of their historical data submissions, and to assist SPRFMO with the clarification of species previously referred to simply as "mackerel". These catch data have not yet been incorporated into the tables in Appendix A for the EU, unless they are already included within the SPRFMO FAO87 catch data labelled "Jack mackerel – unspecified" – this is currently unclear and needs to be checked.

Lithuanian catch data is also included within the Russian Federation submission for the years prior to the dissolution of the USSR.

[8] Taiwan Prov. of China in FAO terminology

[9] Summaries of EU legislation. Participation in a Regional Fisheries Organisations. Accessed at http://europa.eu/legislation_summaries/maritime_affairs_and_fisheries/external_relations_enlargement/l66034_en.htm

5.3.7 Overlapping Submissions

It is possible that two different participating members may submit overlapping data sets to one of the two organisations' databases. In this case, summing any overlapping data could result in 'double counting', *i.e*. an over-estimation of the total catch, and perhaps a false comparison of incorrect total catches between the two databases.

Example
For SPRFMO, both New Zealand and the Ukraine have made submissions detailing *Trachurus murphyi* and *Trachurus* species catches within the NZ EEZ (FAO 81). It is possible that these submissions could contain duplicate data, *i.e.* some of the catch included within New Zealand's submission of EEZ *T. Murphyi* catch may also be included within Ukraine's submission for *Trachurus* spp caught within NZ's EEZ. It is not yet known if this is the case.

5.3.8 Spatial Coverage

As described in section 2.3 (refer to Figure 1), most of the FAO fishing areas' boundaries in the South Pacific and the SPRFMO Convention Area do not match. This is likely to be one reason for some of the discrepancies found between the two organizations' data holdings, in particular for those species which occur and are caught within both High Seas and EEZs/national areas of jurisdiction.

For coastal countries, e.g. Australia, Chile, Ecuador, New Zealand, Peru, *etc*., FAO submissions generally include both High Seas and EEZ/ national jurisdiction catch data. However, many SPRFMO submissions do not include EEZ/national jurisdiction catch data for coastal participants. In these scenarios it's not possible to directly compare the data held on the two databases.

Example
This situation explains the apparent data gaps for Australian and New Zealand fisheries catch data such as orange roughy, and also *Scomber australasicus* and alfonsino for New Zealand. Both countries have submitted only High Seas data to SPRFMO for these species. It is clear from New Zealand domestic fishery assessment reports that New Zealand has taken additional catch of these species within its EEZ. This domestic catch has probably been reported to the FAO, but has not been reported to SPRFMO as it is not required. This probably explains the apparent discrepancy between FAO and SPRFMO db catch totals.

6. CONCLUSIONS

6.1 General

Despite the difficulties in comparing specific catch figures, this exercise proved useful in several ways:

- To improve the understanding of both organisations about each others' data sets, and to promote greater collaboration in the future,
- To demonstrate that collaboration between the two organisations is a useful way of identifying gaps in catch information, i.e. situations where catch information has not yet been reported to one of the two organizations,

- To demonstrate that apparent discrepancies do exist between catch statistics reported to FAO and to SPRFMO between 1970 – 2008 for at least the FAO major fishing areas for statistical purposes (FAO 81, 87) which overlap with the SPRFMO Convention Area, but these may sometimes be a result of the way data is collected and/or reported.

6.2 Future Actions

FAO

- For recent and future catch information, FAO will continue to check the catch data published by SPRFMO in order to identify those countries which have not yet reported recent South Pacific catches. FAO will request that national correspondents also submit those data to FAO, alternatively FAO could derive the information directly from the SPRFMO database.
- For historical catches, FAO will also consider including in its catch database those catches that have not previously been reported to FAO, but which are available from the SPRFMO database.

SPRFMO

SPRFMO will continue to correspond with FAO to check the consistency of data submissions received to date, and to monitor any apparent gaps and/or discrepancies between the two organisations.

Where this exercise has highlighted apparent inconsistencies between SPRFMO and FAO data holdings, SPRFMO will, if practicable:

- Further investigate any apparent discrepancies which appear to be transcription errors by checking the data directly with the participants concerned, and by correcting any errors as advised,
- Check with participants (for catch figures which are for at least 2 calendar years ago) that these represent the final catch figures, rather than preliminary figures,
- Try to better clarify scientific names of species and/or species groups (especially for mackerel data) in cases where these are currently ambiguous,
- Where necessary, confirm if the catch data submitted represents nominal catch data or alternate forms of catch data such as logbook data,
- If required, clarify if catch data submissions represent a mix of catch caught between the High Seas and seas of national jurisdiction/EEZs versus catch caught only within the High Seas or only within seas of national jurisdiction/EEZs,
- Further check whether duplicate catch data may have been submitted for two different participants/ flags for the same time period, *e.g.* in respect of Lithuania for the Russian Federation and the European Union, and for the Ukraine and New Zealand for the New Zealand EEZ area.

Acknowledgment

The authors wish to thank Mr. F. Carocci (FAO-FIRF) for his kind collaboration in preparing the map at Figure1.

Appendix Key

EEZ - Exclusive Economic Zone
F - FAO estimate
HS - High Seas
X - Data not displayed due to SPRFMO confidentiality

APPENDIX A

Table 1: Comparison of *Trachurus* spp data, *p1 of 4*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Australia	FAO	Trachurus declivis	Greenback horse mackerel	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Australia	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Australia	SPRFMO	Trachurus spp	Jack mackerel	EEZ																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belize	FAO	-	-	-																				
Belize	SPRFMO		Horse mackerel	87																				
Belize	SPRFMO		Chilean jack mackerel	87																				
Chile	FAO	Trachurus murphyi	Chilean jack mackerel	87	104,000	149,900	86,000	121,600	193,512	261,205	342,269	340,806	586,681	597,511	562,262	1,060,909	1,494,683	865,272	1,426,301	1,456,989	1,184,317	1,770,037	2,138,255	2,390,117
Chile	SPRFMO		Chilean jack mackerel	includes EEZ catches																1,456,989	1,184,317	1,770,037	2,138,255	2,390,117
Difference																				0	0	0	0	0
China	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	SPRFMO		Chilean jack mackerel	87																				
Difference																								
Cook Islands	FAO	-	-	-																				
Cook Islands	SPRFMO	Trachurus spp	Jack mackerel	87																				
Cuba	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	100	-	800	900	-	1,000	19,000	83,971	74,227	83,881	54,875	34,008	32,258	46,833	35,980	44,209	24,486
Cuba	SPRFMO		Jack mackerel	Unspecified											54,295	50,930	61,016	45,981	24,428	42,287	43,387	34,226	12,335	14,784
Difference					-	-	-	100	-	800	900	-	1,000	19,000	29,676	23,297	22,865	8,894	9,580	-10,029	3,446	1,754	31,874	9,702
Ecuador	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	24,937	10,000	-	-	-	-	2,312
Ecuador	SPRFMO		Chilean jack mackerel	87 (EEZ)																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	24,937	10,000	-	-	-	-	2,312
Faroe Islands	FAO	-	-	-																				
Faroe Islands	SPRFMO		Chilean jack mackerel	87																				
Ghana	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ghana	SPRFMO	-	-	-																				
Japan	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	35	2,273	1,667	120	-	29	-	1,694	3,871	5,229	6,835	8,815	6,871	701
Japan	SPRFMO		Chilean jack mackerel	87							x	2,273	1,667	x		x		x	x	5,229	x	x	x	x
Difference					-	-	-	-	-	-	x	0	0	x	-	x	-	x	x	0	x	x	x	x
Japan	FAO	Trachurus spp	Jack and horse mackerels nei	81	-	13,200	18,100	15,000	17,738	13,486	15,145	14,605	6,939	3,849	2,969	8,096	7,171	10,254	15,445	9,265	9,855	6,913	12,871	13,111
Japan	SPRFMO	-	-	-																				
Korea, Republic of	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	819	-	-	-	-	-	62	641	-	2,018	-	-
Korea	SPRFMO		Chilean jack mackerel	87									x											
Difference					-	-	-	-	-	-	-	-	x	-	-	-	-	-	62	641	-	2,018	-	-
Korea, Republic of	FAO	Trachurus spp	Jack and horse mackerels nei	81	-	-	-	-	-	-	-	1,534	2,041	-	-	-	-	-	508	983	2,451	3,468	2,080	837
Korea	SPRFMO	-	-	-																				
New Zealand	FAO	Trachurus spp	Jack and horse mackerels nei	81	300	600	600	700	1,489	317	1,044	1,719	1,817	3,131	3,320	3,542	2,822	2,607	4,616	7,000	10,000	13,000	16,000	18,388
New Zealand	SPRFMO		Chilean jack mackerel	81 (EEZ)																	2,228	0	1,488	3,167
Difference					300	600	600	700	1,489	317	1,044	1,719	1,817	3,131	3,320	3,542	2,822	2,607	4,616	7,000	7,772	13,000	14,512	15,221
Norway	FAO	Trachurus spp	Jack and horse mackerels nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	SPRFMO	-	-	-																				
Peru	FAO	Trachurus murphyi	Chilean jack mackerel	87	4,700	9,200	18,800	42,800	129,211	37,899	54,154	504,992	386,793	151,591	123,380	37,875	50,013	76,825	184,333	87,466	49,863	46,304	118,076	140,720
Peru	SPRFMO	-	-	-	4,711	9,189	18,782	42,781	129,211	37,899	54,154	504,992	386,793	151,591	123,380	37,875	50,013	76,825	184,333	87,466	49,863	46,304	118,076	140,720
Difference					-11	11	18	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vanuatu	FAO	-	-	-																				
Vanuatu	SPRFMO		Chilean jack mackerel	87																				

Table 1: Comparison of *Trachurus* spp data, *p2 of 4*

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	FAO	Trachurus declivis	Greenback horse mackerel	57	-	-	-	-	-	-	-	-	-	-	323	82	594	2,250	3,403	1,923	889	608	363
Australia	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	68	30	18	16	129	71	40	112	92	68	50	64	48
Australia	SPRFMO	Trachurus spp	Jack mackerel	EEZ																		680	-
Difference					-	-	-	-	-	-	-	-	-	-	452	153	634	2,362	3,495	1,991	939	-8	-
Belize	FAO	-	-	-																			
Belize	SPRFMO		Horse mackerel	87												0	0	0	0	867	481	12,585	
Belize	SPRFMO		Chilean jack mackerel	87																			x
Chile	FAO	Trachurus murphyi	Chilean jack mackerel	87	2,471,875	3,020,512	3,212,060	3,236,244	4,041,447	4,404,193	3,883,326	2,917,064	1,612,912	1,219,689	1,234,299	1,649,933	1,518,994	1,421,296	1,451,599	1,430,438	1,379,941	1,302,784	896,189
Chile	SPRFMO		Chilean jack mackerel	includes EEZ catches	2,471,875	3,020,512	3,212,060	3,236,244	4,041,447	4,404,193	3,883,326	2,917,064	1,612,912	1,219,689	1,234,299	1,649,933	1,518,994	1,421,296	1,451,599	1,430,434	1,366,770	1,302,784	896,108
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	13,171	0	81
China	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	76,261	94,690	131,020	143,000	160,000	140,582	143,182
China	SPRFMO		Chilean jack mackerel	87											x	20,090	76,261	94,690	131,020	143,000	160,000	140,582	143,182
Difference															x	-	0	0	0	0	0	0	0
Cook Islands	FAO	-	-	-																			
Cook Islands	SPRFMO	Trachurus spp	Jack mackerel	87																		x	
Cuba	FAO	Trachurus murphyi	Chilean jack mackerel	87	41,197	30,828	3,196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuba	SPRFMO		Jack mackerel	Unspecified	31,047	5,769																	
Difference					10,150	25,059	3,196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ecuador	FAO	Trachurus murphyi	Chilean jack mackerel	87	138	23,123	22,818	9,946	23,723	174,393	56,781	30,302	25,900	19,072	7,144	134,011	604	...	...	...	...	1,010	...
Ecuador	SPRFMO		Chilean jack mackerel	87 (EEZ)	4,144	45,313	15,022	2,673	36,575	174,393	56,782	30,302	25,900	19,072	7,122	133,969	604					927	
Difference					-4,006	-22,190	7,796	7,273	-12,852	0	-1	0	0	0	22	42	0	-	-	-	-	83	-
Faroe Islands	FAO	-	-	-																			
Faroe Islands	SPRFMO		Chilean jack mackerel	87																		38,700	*22,919*
Ghana	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	2,472	1,157	-	-	-	-	-	-	-
Ghana	SPRFMO	-	-	-																			
Japan	FAO	Trachurus murphyi	Chilean jack mackerel	87	157	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-
Japan	SPRFMO		Chilean jack mackerel	87	157									7									
Difference					0	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Japan	FAO	Trachurus spp	Jack and horse mackerels nei	81	13,436	13,944	16,627	14,044	10,034	4,111	335	28	8	11	12	545	26	209	-	-	-	-	-
Japan	SPRFMO	-	-	-																			
Korea, Republic of	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	2,196	9,227	9,444	11,492	11,138	12,600
Korea	SPRFMO		Chilean jack mackerel	87														2,010	7,438	x	10,474	10,940	12,600
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	186	1,789	x	1,018	198	0
Korea, Republic of	FAO	Trachurus spp	Jack and horse mackerels nei	81	1,433	293	1,315	1,260	359	474	1,157	2,087	1,983	2,182	259	307	11	261	16	96	93	386	715
Korea	SPRFMO	-	-	-																			
New Zealand	FAO	Trachurus spp	Jack and horse mackerels nei	81	21,626	21,363	25,087	34,838	34,002	31,919	29,085	34,057	36,059	34,003	22,544	28,507	32,285	37,661	43,152	45,709	36,332	46,355	47,342
New Zealand	SPRFMO		Chilean jack mackerel	81 (EEZ)	3,154	7,519	9,301	19,938	20,604	21,013	25,331	19,569	20,376	16,203	8,226	5,345	4,470	2,401	3,083	3,759	4,645		
Difference					18,472	13,844	15,786	14,900	13,398	10,906	3,754	14,488	15,683	17,800	14,318	23,162	27,815	35,260	40,069	41,950	31,687	46,355	47,342
Norway	FAO	Trachurus spp	Jack and horse mackerels nei	81	-	-	3	3	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-
Norway	SPRFMO	-	-	-																			
Peru	FAO	Trachurus murphyi	Chilean jack mackerel	87	191,139	136,337	96,660	130,681	196,771	376,600	438,736	649,751	386,946	184,679	296,579	723,733	154,219	217,734	187,369	80,663	277,568	254,426	169,537
Peru	SPRFMO	-	-	-	191,139	136,337	96,660	130,681	196,771	376,600	438,736	649,751	386,946	184,679	296,579	723,733	154,219	217,734	187,369	80,663	277,568	254,426	169,537
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vanuatu	FAO	-	-	-																			
Vanuatu	SPRFMO		Chilean jack mackerel	87														53,959	94,685	77,356	129,535	112,501	100,066

Table 1: Comparison of *Trachurus* spp data, *p3 of 4*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Bulgaria	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	4,726	15,065	12,629	13,561	24,324	14,694	2,290	-	-	-	-
Germany	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	1,031	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Netherlands	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poland	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	1,180	528	-	7,136	39,943	80,129	-	-	-	-	-
TOTAL					0	0	0	0	0	0	0	0	0	5,906	16,624	12,629	20,697	64,267	94,823	2,290	0	0	0	0
EU	SPRFMO		Chilean jack mackerel	87																				
EU	SPRFMO		Jack mackerel - unspecified	71, 77, 81, 87 (87 post 2004)				35	55	680	719	1,078	29,455	45,495	7,540	2,029	7,600	40,357	80,848	847	828	864	76,036	11,584
TOTAL					0	0	0	35	55	680	719	1,078	29,455	45,495	7,540	2,029	7,600	40,357	80,848	847	828	864	76,036	11,584
Difference					0	0	0	-35	-55	-680	-719	-1,078	-29,455	-39,589	9,084	10,600	13,097	23,910	13,975	1,443	-828	-864	-76,036	-11,584
Estonia	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,422	2,016
Latvia	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,541	7,490
Lithuania	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,633	5,368
Georgia	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Russian Federation	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	49,333	39,293
Ukraine	FAO	Trachurus declivis	Greenback horse mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	868	2,292
Un. Sov. Soc. Rep.	FAO	Trachurus declivis	Greenback horse mackerel	81	...	-	-	-	-	-	-	710	254	-	13	-	4,705	10,651	11,068	20,090	105,479	107,329	-	-
TOTAL					0	0	0	0	0	0	0	710	254	0	13	0	4,705	10,651	11,068	20,090	105,479	107,329	58,797	56,459
Russian Fed	SPRFMO		Greenback horse mackerel	81	0	0	0	0	0	0	0	710	254	0	13	0	4,953	10,651	22,300	133,300	146,200	107,329	58,797	56,343
Ukraine	SPRFMO		Jack and horse mackerels	81																				
Ukraine	SPRFMO		Chilean jack mackerel	81																				
TOTAL					0	0	0	0	0	0	0	710	254	0	13	0	4,953	10,651	22,300	133,300	146,200	107,329	58,797	56,343
Difference					0	0	0	0	0	0	0	0	0	0	0	0	-248	0	-11,232	-113,210	-40,721	0	0	116
Estonia	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	82,590	77,351
Georgia	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23,134	26,358
Latvia	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	128,966	128,692
Lithuania	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	75,122	102,980
Russian Federation	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	498,214	662,626
Ukraine	FAO	Trachurus murphyi	Chilean jack mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	130,262	98,285
Un. Sov. Soc. Rep.	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	5,500	-	-	-	-	-	49,220	532,209	494,402	554,646	555,367	591,005	570,612	563,968	673,049	818,628	-	-
TOTAL					0	0	5,500	0	0	0	0	0	49,220	532,209	494,402	554,646	555,367	591,005	570,612	563,968	673,049	818,628	938,288	1,096,292
Russian Fed	SPRFMO		Chilean jack mackerel	87	0	0	5,500	0	0	0	0	0	49,220	532,209	544,970	771,630	735,898	866,500	1,056,600	837,700	785,000	818,628	938,288	1,096,292
Ukraine	SPRFMO		Chilean jack mackerel	87																				
TOTAL					0	0	5,500	0	0	0	0	0	49,220	532,209	544,970	771,630	735,898	866,500	1,056,600	837,700	785,000	818,628	938,288	1,096,292
Difference					0	0	0	0	0	0	0	0	0	0	-50,568	-216,984	-180,531	-275,495	-485,988	-273,732	-111,951	0	0	0

Table 1: Comparison of *Trachurus* spp data, *p4 of 4*

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Bulgaria	FAO	Trachurus murphyi	Chilean jack mackerel	87	1,649	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Trachurus murphyi	Chilean jack mackerel	87				-	-	-	-	-	-	-	-	-	-	-	-	-	-	33,433	21,046
Netherlands	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41,747	36,854
Poland	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					1,649	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75,180	57,900
EU	SPRFMO		Chilean jack mackerel	87																6,179	62,137	123,511	106,665
EU	SPRFMO		Jack mackerel - unspecified	?1, 77, 81, 87 (87 post 2004	81,909	109,292	7,842																
TOTAL					81,909	109,292	7,842	0	0	0	0	0	0	0	0	0	0	0	0	6,179	62,137	123,511	106,665
Difference					-80,260	-109,292	-7,842	0	0	0	0	0	0	0	0	0	0	0	0	-6,179	-62,137	-48,331	-48,765
Estonia	FAO	Trachurus declivis	Greenback horse mackerel	81	516	16,392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	FAO	Trachurus declivis	Greenback horse mackerel	81	9,266	13,639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Trachurus declivis	Greenback horse mackerel	81	6,064	12,752	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	FAO	Trachurus declivis	Greenback horse mackerel	81	-	2,563	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Federation	FAO	Trachurus declivis	Greenback horse mackerel	81	47,537	78,949	2,892	4,260	1,804	1,602	2,280	886	52	223	-	-	-	-	-	-	-	647	-
Ukraine	FAO	Trachurus declivis	Greenback horse mackerel	81	4,135	8,157	2,878	7,937	4,192	8,990	13,093	9,740	9,309	15,306	12,213	7,577	5,667	25,016	22,600	...	20,627	...	...
Un. Sov. Soc. Rep.	FAO	Trachurus declivis	Greenback horse mackerel	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					67,518	132,452	5,770	12,197	5,996	10,592	15,373	10,626	9,361	15,529	12,213	7,577	5,667	25,016	22,600	0	20,627	647	0
Russian Fed	SPRFMO		Greenback horse mackerel	81	67,518	127,000	2,892	4,260	1,804	1,602	2,280	886	52	223	0	0	0	0	0	0	0	0	0
Ukraine	SPRFMO		Jack and horse mackerels	81		319	2,878	7,937	4,192	8,990	13,093	9,740	9,309	15,306	12,213	7,577	5,667	25,016	22,600			22,067	
Ukraine	SPRFMO		Chilean jack mackerel	81		7,838																	
TOTAL					67,518	135,157	5,770	12,197	5,996	10,592	15,373	10,626	9,361	15,529	12,213	7,577	5,667	25,016	22,600	0	0	22,067	
Difference					0	-2,705	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,627	-21,420	
Estonia	FAO	Trachurus murphyi	Chilean jack mackerel	87	78,627	60,318	376	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	FAO	Trachurus murphyi	Chilean jack mackerel	87	36,130	12,181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	FAO	Trachurus murphyi	Chilean jack mackerel	87	113,221	83,719	2,298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Trachurus murphyi	Chilean jack mackerel	87	80,874	109,292	7,842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Federation	FAO	Trachurus murphyi	Chilean jack mackerel	87	688,551	419,650	31,357	-	-	-	-	-	-	-	-	-	-	132	-	-	-	-	2150
Ukraine	FAO	Trachurus murphyi	Chilean jack mackerel	87	124,894	57,788	2,736	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Trachurus murphyi	Chilean jack mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					1,122,297	742,948	44,609	0	0	0	0	0	0	0	0	0	0	132	0	0	0	0	2,150
Russian Fed	SPRFMO		Chilean jack mackerel	87	1,122,297	591,800	32,000	0	0	0	0	0	0	0	0	0	0	7,540	62,300	7,040	0	0	x
Ukraine	SPRFMO		Chilean jack mackerel	87		65,126	2,736																
TOTAL					1,122,297	656,926	34,736	0	0	0	0	0	0	0	0	0	0	7,540	62,300	7,040	0	0	x
Difference					0	86,022	9,873	0	0	0	0	0	0	0	0	0	0	-7,408	-62,300	-7,040	0	0	x

Table 2: Comparison of *Scomber* spp data, *p1 of 3*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Belize	FAO	-	-	-																				
Belize	SPRFMO		Mackerel - species not specified	87																				
Chile	FAO	Scomber japonicus	Chub mackerel	87	8,000	8,500	1,000	3,800	215	15,235	50,738	141,263	182,680	89,117	102,279	97,457	20,987	9,280	111,877	11,314	1,584	32,799	26,423	39,328
Chile	SPRFMO		Chub mackerel - *Scomber Japonicus*	includes EEZ catches																11,314	1,584	32,799	26,423	39,238
Difference																				0	0	0	0	90
Cuba	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	100	2,852	3,239	2,091	-	-	-	-	-	-	-
Cuba	SPRFMO	-	-	-																				
Ecuador	FAO	Scomber japonicus	Chub mackerel	87	35,000	41,900	55,200	95,000	110,000	132,000	236,000	370,000	550,000	528,623	570,617	131,862	257,469	96,527	291,686	114,139	107,711	116,625	180,347	145,577
Ecuador	SPRFMO	-	-	-																				
Faroe Islands	FAO	-	-	-																				
Faroe Islands	SPRFMO		Chilean jack mackerel	87																				
Ghana	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ghana	SPRFMO	-	-	-																				
Japan	FAO	Scomber japonicus	Chub mackerel	87	...	-	-	-	-	-	-	-	0	1	-	-	-	-	1	-	-	-	-	-
Japan	SPRFMO		Chub mackerel	87									1	1					1					
Difference					-	-	-	-	-	-	-	-	-1	0	-	-	-	-	0	-	-	-	-	-
Japan	FAO	Scomber australasicus	Blue mackerel	81	0	0	0	0	41	3	79	74	38	2	0	21	36	309	183	126	186	206	1,888	973
Japan	SPRFMO	-	-	-																				
Korea, Republic of	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea	SPRFMO		Chub mackerel	87																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea, Republic of	FAO	Scomber australasicus	Blue mackerel	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	376	-	-	-
Korea	SPRFMO	-	-	-																				
New Zealand	FAO	Scomber australasicus	Blue mackerel	81	...	...	...	...	...	15	101	194	213	599	1,193	1,874	1,061	1,885	796	1,676	1,414	2,903	3,393	6,147
New Zealand	SPRFMO	Scomber australasicus		81 (HS)																				
Difference					-	-	-	-	-	15	101	194	213	599	1193	1874	1061	1885	796	1676	1414	2903	3393	6147
Peru	FAO	Scomber japonicus	Chub mackerel	87	8,800	10,100	8,700	65,000	63,270	23,588	40,172	46,071	101,505	118,067	59,062	32,803	22,072	22,579	87,134	57,069	38,709	24,072	25,554	32,042
Peru	SPRFMO	-	-	-	8,791	10,113	8,707	64,966	63,270	23,588	40,172	46,071	101,505	118,067	59,062	32,803	22,072	22,579	87,134	57,069	38,709	24,072	25,554	32,042
Difference					9	-13	-7	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vanuatu	FAO	-	-	-																				
Vanuatu	SPRFMO		Chub mackerel	87																				
Bulgaria	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	35	89	997	73	338	13	-	-	-	-	-
Lithuania	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Netherlands	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poland	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	54	37	20	-	-	-	-	-
TOTAL					0	0	0	0	0	0	0	0	0	35	89	997	127	375	33	0	0	0	0	0
EU	SPRFMO		Chub mackerel	71, 77, 81, 87																				
EU	SPRFMO		Mackerel (other than jack mackerel)	71, 77, 81, 87						7	97	596	13,273	93,311	48,129	78,261	44,628	39,972	69,055	81,361	79,454	82,955	90,655	109,556
TOTAL					0	0	0	0	0	7	97	596	13,273	93,311	48,129	78,261	44,628	39,972	69,055	81,361	79,454	82,955	90,655	109,556
Difference					0	0	0	0	0	-7	-97	-596	-13273	-93276	-48040	-77264	-44501	-39597	-69022	-81361	-79454	-82955	-90655	-109556
Georgia	FAO	Scomber australasicus	Blue mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Russian Federation	FAO	Scomber australasicus	Blue mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Ukraine	FAO	Scomber australasicus	Blue mackerel	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	25
TOTAL					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Ukraine	SPRFMO	Scomber australasicus		81																				
Russian Fed	SPRFMO		Pacific mackerel	81						0	0	0	0	0	0	0	0	0	0	50	0	50	x	700
TOTAL					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	50	x	700
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-50	0	-50	x	-675

Table 2: Comparison of *Scomber* spp data, *p2 of 3*

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Belize	FAO	-	-	-																			
Belize	SPRFMO		Mackerel - species not specified	87																		966	1,104
Chile	FAO	Scomber japonicus	Chub mackerel	87	192,948	191,723	72,364	96,023	27,171	110,210	146,649	211,649	71,769	120,123	95,789	365,031	343,371	572,052	577,336	280,756	368,786	297,189	133,018
Chile	SPRFMO		Chub mackerel - *Scomber Japonicus*	includes EEZ catches	192,948	191,723	72,364	96,023	21,171	110,210	146,649	211,649	71,769	120,123	95,789	365,031	343,371	572,052	577,336	280,756	345,673	297,189	133,018
Difference					0	0	0	0	6,000	0	0	0	0	0	0	0	0	0	0	0	23,113	0	0
Cuba	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuba	SPRFMO	-	-	-																			
Ecuador	FAO	Scomber japonicus	Chub mackerel	87	74,473	61,939	26,322	45,322	38,991	57,950	79,484	192,182	44,716	28,307	84,324	85,378	17,073	33,273	51,806	113,357	37,665	42,718	18,471
Ecuador	SPRFMO	-	-	-																			
Faroe Islands	FAO	-	-	-																			
Faroe Islands	SPRFMO		Chilean jack mackerel	87																			x
Ghana	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	1,148	855	-	-	-	-	-	-	-
Ghana	SPRFMO	-	-	-																			
Japan	FAO	Scomber japonicus	Chub mackerel	87	0	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Japan	SPRFMO		Chub mackerel	87	1									1									
Difference					-1	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Japan	FAO	Scomber australasicus	Blue mackerel	81	371	1,111	2,477	380	292	358	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	SPRFMO	-	-	-																			
Korea, Republic of	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	581	-	285	1,240	968
Korea	SPRFMO		Chub mackerel	87														39	708	x	1,460	1,240	968
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-127	x	-1175	0	0
Korea, Republic of	FAO	Scomber australasicus	Blue mackerel	81	-	-	-	-	-	-	1	-	5	-	-	-	-	-	-	-	-	-	6
Korea	SPRFMO	-	-	-																			
New Zealand	FAO	Scomber australasicus	Blue mackerel	81	7,600	10,006	10,172	9,554	5,467	7,534	2,837	8,768	7,041	12,417	10,431	9,761	13,287	10,347	11,150	7,224	15,432	7,685	6,633
New Zealand	SPRFMO	Scomber australasicus		81 (HS)													5	0	3	5	0		
Difference					7600	10006	10172	9554	5467	7534	2837	8768	7041	12417	10431	9761	13282	10347	11147	7219	15432	7685	6633
Peru	FAO	Scomber japonicus	Chub mackerel	87	60,776	17,304	17,939	29,504	44,115	44,259	49,221	206,183	401,903	527,729	73,263	176,202	32,698	94,384	62,255	52,895	102,322	62,387	92,989
Peru	SPRFMO	-	-	-	60,776	17,304	17,939	29,504	44,115	44,259	49,221	206,183	401,903	527,729	73,263	176,202	32,698	93,384	62,255	52,895	102,322	62,387	92,989
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	1,000	0	0	0	0	0
Vanuatu	FAO	-	-	-																			
Vanuatu	SPRFMO		Chub mackerel	87														1,553	3,137	1,819	3,352	7,705	8,945
Bulgaria	FAO	Scomber japonicus	Chub mackerel	87	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Scomber japonicus	Chub mackerel	87				-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,009	1493
Netherlands	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,616	2337
Poland	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5625	3830
EU	SPRFMO		Chub mackerel	71, 77, 81, 87																211	5,989	9,067	5,879
EU	SPRFMO		Mackerel (other than jack mackerel)	71, 77, 81, 87	98,123	14,396	36																
TOTAL					98,123	14,396	36	0	0	0	0	0	0	0	0	0	0	0	0	211	5989	9067	5879
Difference					-98118	-14396	-36	0	0	0	0	0	0	0	0	0	0	0	0	-211	-5989	-3442	-2049
Georgia	FAO	Scomber australasicus	Blue mackerel	81	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Federation	FAO	Scomber australasicus	Blue mackerel	81	-	828	-	326	204	75	-	-	-	-	-	-	-	-	-	-	-	50	-
Ukraine	FAO	Scomber australasicus	Blue mackerel	81	-	224	213	94	133	...	156	9	214	3,457	1,677	2,040	1,849	2,843	2,165	...	1,877	...	...
TOTAL					0	1080	213	420	337	75	156	9	214	3457	1677	2040	1849	2843	2165	0	1877	50	0
Ukraine	SPRFMO	Scomber australasicus		81		0	0	0	0		0	0	0	0	0	0	0	0					
Russian Fed	SPRFMO		Pacific mackerel	81	100	828		326	204	75	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL					100	828	0	326	204	75	0	0	0	0	0	0	0	0	0	0	0	0	
Difference					-100	252	213	94	133	0	156	9	214	3457	1677	2040	1849	2843	2165	0	1877	50	0

Table 2: Comparison of *Scomber* spp data, *p3 of 3*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Estonia	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	342	-
Georgia	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	209	345
Latvia	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50	-
Lithuania	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	316	1,610
Russian Federation	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,277	24,758
Ukraine	FAO	Scomber japonicus	Chub mackerel	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	941	1,447
Un. Sov. Soc. Rep.	FAO	Scomber japonicus	Chub mackerel	87	...	-	-	-	-	-	-	-	1,773	5,795	41,893	41,500	41,878	2,123	6,818	18,270	1,128	274	-	-
TOTAL					0	0	0	0	0	0	0	0	1,773	5,795	41,893	41,500	41,878	2,123	6,818	18,270	1,128	274	4,135	28,160
Ukraine	SPRFMO	Scomber Japonicus		87																				
Russian Fed	SPRFMO		Chub mackerel	87						0	0	0	1,773	5,800	48,300	41,500	41,878	4,416	71,952	38,275	1,920	3,835	34,805	28,160
TOTAL					0	0	0	0	0	0	0	0	1,773	5,800	48,300	41,500	41,878	4,416	71,952	38,275	1,920	3,835	34,805	28,160
Difference					0	0	0	0	0	0	0	0	0	-5	-6,407	0	0	-2,293	-65,134	-20,005	-792	-3,561	-30,670	0

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Estonia	FAO	Scomber japonicus	Chub mackerel	87	208	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	FAO	Scomber japonicus	Chub mackerel	87	1,972	...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	FAO	Scomber japonicus	Chub mackerel	87	3,428	1,010	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Scomber japonicus	Chub mackerel	87	1,938	1,644	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Federation	FAO	Scomber japonicus	Chub mackerel	87	43,728	18,257	970	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	173
Ukraine	FAO	Scomber japonicus	Chub mackerel	87	22,894	1,337	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Scomber japonicus	Chub mackerel	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					74,168	22,716	1,027	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	173
Ukraine	SPRFMO	Scomber Japonicus		87		1,063	17																
Russian Fed	SPRFMO		Chub mackerel	87	74,168	18,257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	x
TOTAL					74,168	19,320	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	x
Difference					0	3,396	1,010	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	x

Table 3: Comparison of Squid data, *p1 of 3*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Australia	FAO	Loliginidae, Ommastrephidae	Various squids nei	57	200	300	200	200	89	55	83	216	263	385	463	354	666	608	770	811 F	1,143 F	1,459 F	1,531 F	522
Australia	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	0	0	0	0	-	-	33	55	85	225	434	462	396	592	645	680 F	958 F	1,223 F	1,283 F	800
Australia	SPRFMO	-	-	-																				
Belize	FAO	-	-	-																				
Belize	SPRFMO		Squid species not specified	87																				
Chile	FAO	Dosidicus gigas	Jumbo flying squid	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chile	SPRFMO		Squid jumbo flying squid	includes EEZ catches																		x	x	x
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chile	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	0	0	0	0	0	0	0	0	67	212	24	35	51	170	191	157	42	18	62	27
China	FAO	Dosidicus gigas	Jumbo flying squid	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	SPRFMO		Squid jumbo flying squid	87																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colombia	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	0	0	0	100	73	76	-	40	5	20	12	22	106	46	424	115	201	253	188	152
Colombia	SPRFMO	-	-	-																				
Cuba	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	-	-	-	-	-	-	-	-	-	-	5	33	-	-	3	25	8	19	94
Cuba	SPRFMO	-	-	-																				
Ecuador	FAO	Dosidicus gigas	Jumbo flying squid	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ecuador	FAO	Loligo spp	Common squids nei	87	-	-	-	-	-	-	-	-	-	...	...	97	90	95	101	255	188	207	138	197
Ecuador	SPRFMO	-	-	-																				
Japan	FAO	Dosidicus gigas	Jumbo flying squid	87	...	-	-	-	-	-	-	-	7	-	-	-	-	0	9	15,503	94	-	-	0
Japan	SPRFMO		Squid jumbo flying squid	87																			x	x
Difference					-	-	-	-	-	-	-	-	7	-	-	-	-	0	9	15,503	94	-	x	x
Japan	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	13,400	24,479	18,715	19,598	26,593	25,696	20,887	62,703	-	-	-	-	-	22,944	21,338	17,272	24,212
Japan	FAO	Nototodarus sloani	Wellington flying squid	81	-	0	100	1,700	47	1,005	-	1	3,298	5,674	563	47,811	48,247	43,382	68,182	56,968	25,853	27,125	34,130	45,357
Korea, Republic of	FAO	Dosidicus gigas	Jumbo flying squid	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea	SPRFMO		Squid species not specified	87																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea, Republic of	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	-	-	-	-	1,473	2,756	1,111	558	961	3,613	4,215	6,833	2,564	4,008	8,898	10,165	15,494
New Zealand	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	SPRFMO		Squid (OMZ, UHX, UHU)	5x5																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	FAO	Nototodarus sloani	Wellington flying squid	81	...	...	...	400	100	71	94	556	1,784	414	280	1,019	610	1,421	6,277	1,781	1,000	4,722	4,354	7,622
Peru	FAO	Dosidicus gigas	Jumbo flying squid	87	500	400	0	-	-	-	717	1	-	59	-	61	888	2	7	206	870	84	852	2,992
Peru	FAO	Loligo spp	Common squids nei	87	300	400	700	300	133	466	374	271	361	231	198	852	1,462	405	419	1,141	1,120	869	606	1,861
Taiwan Prov. of China*	FAO	Nototodarus sloani	Wellington flying squid	81	...	...	...	...	...	...	...	...	...	...	...	...	...	10,895	15,618	8,343	1,253	850	...	...
Chinese Taipei	SPRFMO	Nototodarus sloani		81 (NZ EEZ)				109	95	254	1,379	1,797	2,163	1,601	3,497	8,147	13,100	16,377	17,900	8,343	1,253	850	0	0
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-5,482	-2,282	0	0	0	-	-
Chinese Taipei	SPRFMO		Squid jumbo flying squid	87																				
Bulgaria	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-
Poland	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
TOTAL					0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
EU	SPRFMO		Squid species not specified	71, 77, 81, 87																				2,003
Difference					0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	-2,003

** The names used in this Appendix for states, entities or fishing entities are those used in the respective databases of FAO and SPRFMO*

Table 3: Comparison of Squid data, *p2 of 3*

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	FAO	Loliginidae, Ommastrephidae	Various squids nei	57	668	517	685	840	1,315	2,111	930	2,657	1,083	2,745	1,816	3,272	1,728	2,841	3,693	2,907	1,749	2,878	1,254
Australia	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	680	741	1,471	1,722	1,454	1,577	787	186	92	384	664	392	207	342	557	459	478	315	277
Australia	SPRFMO	-	-	-																			
Belize	FAO	-	-	-																			
Belize	SPRFMO		Squid species not specified	87												453	588	479	681	825	0	0	
Chile	FAO	Dosidicus gigas	Jumbo flying squid	87	...	445	9,400	7,442	205	-	2	-	5	6	9	3,476	5,589	15,191	175,134	296,954	250,989	124,389	145,667
Chile	SPRFMO		Squid jumbo flying squid	includes EEZ catches		445	9,400	7,442	205		2		5	6	9	3,476	5,589	15,191	175,134	296,953	219,800	124,389	145,171
Difference					-	0	0	0	0	-	0	-	0	0	0	0	0	0	0	1	31,189	0	496
Chile	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	20	484	68	162	257	55	24	110	179	99	55	118	72	59	24	934	-	120	317
China	FAO	Dosidicus gigas	Jumbo flying squid	87	-	-	-	-	-	-	-	-	-	-	-	-	50,483	81,000	205,600	86,000	62,000	43,000	79,064
China	SPRFMO		Squid jumbo flying squid	87												17,770	50,483	81,000	205,600	86,000	62,000	49,963	79,064
Difference					-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	-6,963	0
Colombia	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	68	13	360	285	36	14	295	183	35	38	87	76	68	42	25	9	10 F	14 F	14 F
Colombia	SPRFMO	-	-	-																			
Cuba	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	333	2,756	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuba	SPRFMO	-	-	-																			
Ecuador	FAO	Dosidicus gigas	Jumbo flying squid	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	212	121	668
Ecuador	FAO	Loligo spp	Common squids nei	87	626	299	1,476	85	90	90	90	100	100	100	100	100	90 F	130 F	123 F	120 F	110 F	120 F	100 F
Ecuador	SPRFMO	-	-	-																			
Japan	FAO	Dosidicus gigas	Jumbo flying squid	87	1,348	2,223	51,187	55,800	84,205	36,515	1,201	13,221	-	46	58,337	71,646	60,246	27,058	46,187	33,652	37,428	14,059	13,653
Japan	SPRFMO		Squid jumbo flying squid	87	x	50	1,874	3,579	2,698	37	644	x		x	1,704	1,132	33,978	4,510	4,615	1,633	323		
Difference					x	2,173	49,313	52,221	81,507	36,478	557	x	-	x	56,633	70,514	26,268	22,548	41,572	32,019	37,105	14,059	13,653
Japan	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	1,184	723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Japan	FAO	Nototodarus sloani	Wellington flying squid	81	8,683	11,472	12,126	8,072	10,180	19,687	11,342	5,971	3,729	1,852	1,503	1,139	1,850	3,274	3,906	4,757	3,951	3,081	1,359
Korea, Republic of	FAO	Dosidicus gigas	Jumbo flying squid	87	474	17,034	36,101	57,778	66,386	34,440	11,784	2,384	201	18,813	15,625	5,797	21,382	4,722	10,787	2,519	2,485	-	-
Korea	SPRFMO		Squid species not specified	87	3,465	24,015	43,022	62,887	69,664	35,719	12,896	3,359		19,728	20,822	11,517	23,979	4,722	13,574	x			
Difference					-2,991	-6,981	-6,921	-5,109	-3,278	-1,279	-1,112	-975	201	-915	-5,197	-5,720	-2,597	0	-2,787	x	2,485	-	-
Korea, Republic of	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	13,139	9,290	17,798	6,652	13,110	17,436	9,836	13,068	12,278	9,951	8,801	11,380	16,991	17,779	32,079	30,634	25,092	25,643	15,611
New Zealand	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	-	-	10	7	17	27	48	74	45	41	21	54	36	48	51	75
New Zealand	SPRFMO		Squid (OMZ, UHX, UHU)	5x5													0	0	0	-	0	0	-
Difference					-	-	-	-	-	10	7	17	27	48	74	45	41	21	54	-	48	51	-
New Zealand	FAO	Nototodarus sloani	Wellington flying squid	81	20,489	22,985	44,376	25,530	51,841	59,497	23,474	44,845	42,541	27,282	20,878	35,100	50,016	43,730	84,409	87,810	69,213	70,840	55,627
Peru	FAO	Dosidicus gigas	Jumbo flying squid	87	7,441	20,657	12,695	7,769	42,838	25,676	8,138	16,061	547	54,652	53,795	71,834	146,390	153,727	270,368	291,140	434,261	427,591	533,414
Peru	FAO	Loligo spp	Common squids nei	87	6,448	780	2,621	1,316	1,215	7,766	10,250	3,806	287	1,353	24,548	18,738	6,490	27,441	12,481	10,205	9,093	14,769	4,654
Taiwan Prov. of China*	FAO	Nototodarus sloani	Wellington flying squid	81	...	...	5,000 F	6,000 F	7,000 F	8,284	14,747	6,620	3,974	761	-	-	-	-	-	-	-	-	-
Chinese Taipei	SPRFMO	Nototodarus sloani		81 (NZ EEZ)	0	0	0	0	0	8,284	14,747	6,620	3,974	761	0	0	0	0	0	3,831	3,304		
Difference					-	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-
Chinese Taipei	SPRFMO		Squid jumbo flying squid	87			1,698	0	0	0	0	0	0	0	0	0	12,064	23,009	39,450	15,976	18,349	14,750	31,161
Bulgaria	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poland	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EU	SPRFMO		Squid species not specified	71, 77, 81, 87	6,497	1,075																	
Difference					-6,497	-1,075	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

** The names used in this Appendix for states, entities or fishing entities are those used in the respective databases of FAO and SPRFMO*

Table 3: Comparison of Squid data, *p3 of 3*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Georgia	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Latvia	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Lithuania	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Russian Federation	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7,481	13,413
Un. Sov. Soc. Rep.	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	-	-	-	-	26,837	3,112	14,308	15,506	12,902	18,118	20,319	19,076	18,267	15,818	9,135	-	-
TOTAL					0	0	0	0	0	0	0	26837	3112	14308	15506	12902	18118	20319	19076	18267	15818	9135	7481	13413
Russian Fed	SPRFMO		Squid species not specified	81	0	0	0	0	0	0	0	26,837	3,112	14,308	15,506	12,902	18,118	20,319	19,076	18,267	15,818	9,135	x	13,413
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	x	0
Ukraine	FAO	Nototodarus sloani	Wellington flying squid	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Ukraine	SPRFMO	Nototodarus sloani, N. gouldi		81 (NZ EEZ)										6,191	6,986									
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Estonia	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Latvia	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lithuania	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Russian Federation	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Ukraine	FAO	Dosidicus gigas	Jumbo flying squid	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Un. Sov. Soc. Rep.	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	-	0	-	-	-	-	-	-	45	-	25	-	-	-	-	-	-	-	-
TOTAL					0	0	0	0	0	0	0	0	0	45	0	25	0	0	0	0	0	0	0	0
Russian Fed	SPRFMO		Squid species not specified	87			0	0	0	0	0	0	0	45	0	60	10	0	10	130	0	0	0	380
Ukraine	SPRFMO		Squid jumbo flying squid	87																				
TOTAL					0	0	0	0	0	0	0	0	0	45	0	60	10	0	10	130	0	0	0	380
Difference					0	0	0	0	0	0	0	0	0	0	0	-35	-10	0	-10	-130	0	0	0	-380

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Georgia	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	1,055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Federation	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	21,654	17,331	28,767	15,600	22,098	17,004	8,365	5,809	1,907	1,352	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Loliginidae, Ommastrephidae	Various squids nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					22770	17418	28767	15600	22098	17004	8365	5809	1907	1352	0	0	0	0	0	0	0	0	0
Russian Fed	SPRFMO		Squid species not specified	81	21,654	17,331	28,767	15,600	22,098	17,004	8,365	5,809	1,907	1,352	0	0	0	0	0	0	0	0	0
Difference					1,116	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	FAO	Nototodarus sloani	Wellington flying squid	81	636	699	2,932	5,546	10,428	6,630	4,136	7,955	5,321	1,462	2,872	8,623	11,230	10,379	20,122	...	12,935	...	...
Ukraine	SPRFMO	Nototodarus sloani, N. gouldi		81 (NZ EEZ)		699	2,932	5,546	10,428	6,630	4,136	7,955	5,321	1,462	2,872	8,623	11,230	10,379	20,122				
Difference					636	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12,935	-	-
Estonia	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	191	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	...	808	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	1,075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Russian Federation	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	22,606	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	FAO	Dosidicus gigas	Jumbo flying squid	87	142	380	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Loliginidae, Ommastrephidae	Various squids nei	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					142	25060	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Russian Fed	SPRFMO		Squid species not specified	87	7,860	23,240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	SPRFMO		Squid jumbo flying squid	87		398	1																
TOTAL					7,860	23,638	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Difference					-7,718	1,422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

Table 4: Comparison of orange roughy data, *p1 of 2*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Australia	FAO	Hoplostethus atlanticus	Orange roughy	57	-	-	-	-	-	-	-	-	-	-	...	...	...	...	...	...	...	...	...	1,966
Australia	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	...	...	...	...	...	...	2,600 F	5,400 F	6,900 F	13,542
TOTAL					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15508
Australia	SPRFMO		Orange roughy	23.5-60S, 120-180E																		x	x	x
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	x	x	x
Belize	FAO	-	-	-																				
Belize	SPRFMO		Orange roughy	87																				
Chile	FAO	Hoplostethus atlanticus	Orange roughy	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-	-	-	-
Chile	SPRFMO	-	-	-																				
China	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	SPRFMO		Orange roughy	87																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea, Republic of	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Korea	SPRFMO		Orange roughy	81																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	5,000	26,027	24,060	29,592	41,759	37,271	39,999	44,609	49,014	55,361	51,538
New Zealand	SPRFMO		Orange roughy	5x5																				
Difference					-	-	-	-	-	-	-	-	-	5,000	26,027	24,060	29,592	41,759	37,271	39,999	44,609	49,014	55,361	51,538
Norway	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,153
Norway	SPRFMO	-	-	-																				
EU	FAO	-	-	-																				
EU	SPRFMO		Orange roughy	71, 77, 81, 87												3,748								
Russian Federation	FAO	Hoplostethus atlanticus	Orange roughy	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	991	1,132
Un. Sov. Soc. Rep.	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	319	-	1,251	17,300	14,076	8,860	7,229	4,028	4,306	2,475	130	-	-
TOTAL					0	0	0	0	0	0	0	319	0	1251	17300	14076	8860	7229	4028	4306	2475	130	991	1132
Russian Fed	SPRFMO		Orange roughy	81	0	0	0	0	0	0	0	319	0	1,251	17,300	14,076	8,860	7,229	4,028	4,306	2,475	130	x	1,132
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	x	0
Ukraine	FAO	Hoplostethus atlanticus	Orange roughy	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Ukraine	SPRFMO		Orange roughy	81 (NZ EEZ)																				
Ukraine	SPRFMO		Orange roughy	81 (outside NZ EEZ)																				
TOTAL					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4: Comparison of orange roughy data, *p2 of 2*

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	FAO	Hoplostethus atlanticus	Orange roughy	57	1,712	959	627	432	668	227	357	350	4,857	7,553	4,974	5,197	3,961	4,455	2,558	3,250	2,373	1,120	288
Australia	FAO	Hoplostethus atlanticus	Orange roughy	81	37,901	33,111	18,187	12,050	9,977	7,070	4,526	3,129	3,207	28	26	17	14	54	56	144	8	9	0
TOTAL					39613	34070	18814	12482	10645	7297	4883	3479	8064	7581	5000	5214	3975	4509	2614	3394	2381	1129	288
Australia	SPRFMO		Orange roughy	23.5-60S, 120-180E	x	x	x	x	192	x	x	1458	3098	2514	948	751	383	156	351	207	166	x	
Difference					x	x	x	x	10453	x	x	2021	4966	5067	4052	4463	3592	4353	2263	3187	2215	x	288
Belize	FAO	-	-	-																			
Belize	SPRFMO		Orange roughy	87												0	0	9	914	506	200	332	
Chile	FAO	Hoplostethus atlanticus	Orange roughy	87	-	-	-	-	-	-	-	-	-	779	1,482	1,868	1,514	1,249	1,262	783	259	5	1
Chile	SPRFMO	-	-	-																			
China	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	-	-	547	338	-	-	-	-	-
China	SPRFMO		Orange roughy	87												520	597	562	592	710	570	336	
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-50	-224	-	-	-	-	-
Korea, Republic of	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	234	-	93	208	243	138	-	77	-	-
Korea	SPRFMO		Orange roughy	81										x	288	94	208	x	138	-	77	44	
Difference					-	-	-	-	-	-	-	-	-	x	-	-1	0	x	0	-	0	-	-
New Zealand	FAO	Hoplostethus atlanticus	Orange roughy	81	48,379	35,819	36,568	29,681	31,718	33,077	28,639	20,545	21,485	23,780	17,879	14,044	17,954	17,778	17,829	18,451	15,920	14,276	13,310
New Zealand	SPRFMO		Orange roughy	5x5													2,578	1,973	1,697	1,597	1,415	866	837
Difference					48,379	35,819	36,568	29,681	31,718	33,077	28,639	20,545	21,485	23,780	17,879	14,044	15,376	15,805	16,132	16,854	14,505	13,410	12,473
Norway	FAO	Hoplostethus atlanticus	Orange roughy	81	3,450	82	2	1,602	665	1	5	12	3	-	-	-	-	-	-	-	-	-	-
Norway	SPRFMO	-	-	-																			
EU	FAO	-	-	-																			
EU	SPRFMO		Orange roughy	71, 77, 81, 87																			
Russian Federation	FAO	Hoplostethus atlanticus	Orange roughy	81	36	506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL					36	506	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Russian Fed	SPRFMO		Orange roughy	81	36	506	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Difference					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	FAO	Hoplostethus atlanticus	Orange roughy	81	-	-	-	-	-	-	-	-	-	-	102	195	-	176	272	...	249	...	...
Ukraine	SPRFMO		Orange roughy	81 (NZ EEZ)											49	195		12	223				
Ukraine	SPRFMO		Orange roughy	81 (outside NZ EEZ)											53			164	49				
TOTAL					0	0	0	0	0	0	0	0	0	0	102	195	-	176	272	0	0	0	
Difference					-	-	-	-	-	-	-	-	-	-	0	0	-	0	0	-	249	-	-

Table 5: Comparison of alfonsino data, *p1 of 2*

Country	Db	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Australia	FAO	-	-	-																				
Australia	SPRFMO		Alfonsinos nei	23.5-60S, 120-180E																		0	0	0
Belize	FAO	-	-	-																				
Belize	SPRFMO		Alfonsinos nei	87																				
Chile	FAO	Beryx spp	Alfonsinos nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-	-	-	-	-
Chile	SPRFMO		Alfonsinos nei	87 (Nazca Ridge)																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	FAO	Beryx spp	Alfonsinos nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	SPRFMO	-	-	-																				
Korea, Republic of	FAO	Beryx spp	Alfonsinos nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-	-	-	-	-
Korea, Republic of	SPRFMO	-	-	-																				
New Zealand	FAO	Beryx spp	Alfonsinos nei	81	-	-	-	-	-	-	-	-	-	-	-	0	154	884	1,989	1,923	1,488	1,647	1,741	1,497
New Zealand	SPRFMO		Alfonsinos nei	81 (HS)																				
Difference					-	-	-	-	-	-	-	-	-	-	-	0	154	884	1,989	1,923	1,488	1,647	1,741	1,497
Lithuania	FAO	Beryx spp	Alfonsinos nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
EU	SPRFMO		Alfonsinos nei	87																				
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Beryx spp	Alfonsinos nei	81	...	-	-	-	-	-	-	3,491	1,783	5,323	2,325	-	-	-	9	-	-	-	-	-
Russian Fed	SPRFMO		Alfonsinos nei	81						0	0	3,491	1,783	5,323	2,325	0	0	0	0	0	0	0	0	0
Difference					-	-	-	-	-	-	-	0	0	0	0	-	-	-	9	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Beryx spp	Alfonsinos nei	87	-	-	-	-	-	-	-	-	-	907	12	676	620	633	458	-	-	-	-	-
Russian Fed	SPRFMO		Alfonsinos nei	87						0	0	0	0	907	12	676	620	633	458	0	0	0	0	0
Difference					-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	-	-	-	-	-
Ukraine	FAO	Beryx spp	Alfonsinos nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Ukraine	SPRFMO		Alfonsinos nei	81 (NZ EEZ)										4,804	21									
Difference					-	-	-	-	-	-	-	-	-	-4,804	-21	-	-	-	-	-	-	-	-	-
Ukraine	FAO	-	-	-																				
Ukraine	SPRFMO		Splendid alfonsino	87											12	198		32						

Table 5: Comparison of alfonsino data, *p2 of 2*

Country	Db	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Australia	FAO	-	-	-																			
Australia	SPRFMO		Alfonsinos nei	23.5-60S, 120-180E	0	0	0	0	0	0	0	1	1	8	4	1	3	2	1	81	209		
Belize	FAO	-	-	-																			
Belize	SPRFMO		Alfonsinos nei	87												0	0	73	229	102	101	61	
Chile	FAO	Beryx spp	Alfonsinos nei	87	-	-	-	-	-	-	-	-	-	706	4,366	5,182	8,166	9,951	2,860	2,951	2,377	2,648	2,622
Chile	SPRFMO		Alfonsinos nei	87 (Nazca Ridge)									144			1	2	11		5			
Difference					-	-	-	-	-	-	-	-	-	706	4,366	5,181	8,164	9,940	2,860	2,946	2,377	2,648	2,622
China	FAO	Beryx spp	Alfonsinos nei	81	-	-	-	-	-	-	-	-	-	-	-	-	152	-	-	-	-	-	-
China	SPRFMO	-	-	-																			
Korea, Republic of	FAO	Beryx spp	Alfonsinos nei	81	-	-	-	-	-	-	-	-	77	-	-	-	1	-	-	194	-	-	-
Korea, Republic of	SPRFMO	-	-	-																			
New Zealand	FAO	Beryx spp	Alfonsinos nei	81	1,450	1,710	1,711	1,713	2,595	2,177	2,159	2,617	3,516	2,579	2,880	3,044	2,888	3,272	2,631	3,858	2,555	2,881	2,615
New Zealand	SPRFMO		Alfonsinos nei	81 (HS)													17	94	85	26	28	4	3
Difference					1,450	1,710	1,711	1,713	2,595	2,177	2,159	2,617	3,516	2,579	2,880	3,044	2,871	3,178	2,546	3,832	2,527	2,877	2,612
Lithuania	FAO	Beryx spp	Alfonsinos nei	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	447	1497
EU	SPRFMO		Alfonsinos nei	87																		x	x
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x
Un. Sov. Soc. Rep.	FAO	Beryx spp	Alfonsinos nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Fed	SPRFMO		Alfonsinos nei	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Un. Sov. Soc. Rep.	FAO	Beryx spp	Alfonsinos nei	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Russian Fed	SPRFMO		Alfonsinos nei	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Difference					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	FAO	Beryx spp	Alfonsinos nei	81	-	-	-	-	-	-	-	-	-	-	-	9	-	11	-	-	-	-	-
Ukraine	SPRFMO		Alfonsinos nei	81 (NZ EEZ)												9		11					
Difference					-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	-	-
Ukraine	FAO	-	-	-																			
Ukraine	SPRFMO		Splendid alfonsino	87																			

Table 6: Other Species in the FAO Database

Country	Species	Species	Fishing area	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
New Zealand	Allocyttus niger	Black oreo	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ukraine	Allocyttus niger	Black oreo	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
New Zealand	Dissostichus eleginoides	Patagonian toothfish	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chile	Dissostichus eleginoides	Patagonian toothfish	87	-	-	-	-	-	-	-	-	37	120	414	335	607	1,464	2,480	5,032	6,985	4,337	4,300	6,889
Spain	Dissostichus eleginoides	Patagonian toothfish	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chile	Epigonus spp	Cardinal fishes nei	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-	-	-	-	-
New Zealand	Epigonus telescopus	Black cardinal fish	81	-	-	-	-	-	-	-	-	-	-	-	...	...	...	...	...	...	...	...	...
Ukraine	Epigonus telescopus	Black cardinal fish	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
New Zealand	Hyperoglyphe antarctica	Bluenose warehou	81	...	...	...	...	...	...	...	...	...	...	...	314	483	724	1,442	1,373	1,738	1,338	1,533	1,327
New Zealand	Neocyttus rhomboidalis	Spiky oreo	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ukraine	Neocyttus rhomboidalis	Spiky oreo	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
China	Oreosomatidae	Oreo dories nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	Oreosomatidae	Oreo dories nei	81	-	-	-	-	-	-	-	-	-	-	15,848	21,496	18,421	16,146	16,905	22,356	14,456	16,155	19,875	17,240
Norway	Oreosomatidae	Oreo dories nei	81	...	...	...	...	...	...	...	...	...	...	...	-	-	-	-	-	-	-	-	-
Russian Federation	Oreosomatidae	Oreo dories nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,685	342
Ukraine	Oreosomatidae	Oreo dories nei	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Un. Sov. Soc. Rep.	Oreosomatidae	Oreo dories nei	81	-	-	-	-	-	-	-	11,513	28,119	5,568	18,221	25,167	8,920	13,072	8,560	12,019	6,769	6,497	-	-
Ukraine	Paratrachichthys trailli	Sandpaper fish	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
New Zealand	Polyprion oxygeneios	Hapuku wreckfish	81	1,600	1,400	1,100	1,300	1,252	1,106	1,066	1,025	1,362	1,760	2,273	2,334	2,071	2,377	2,516	1,878	1,407	1,090	1,092	972
Ukraine	Polyprion oxygeneios	Hapuku wreckfish	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
Chile	Polyprion oxygeneios	Hapuku wreckfish	87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	127	170	48	80	90	69
New Zealand	Pseudocyttus maculatus	Smooth oreo dory	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ukraine	Pseudocyttus maculatus	Smooth oreo dory	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
China	Pseudopentaceros richardsoni	Pelagic armourhead	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	Pseudopentaceros richardsoni	Pelagic armourhead	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	Pseudopentaceros richardsoni	Pelagic armourhead	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	-	-
New Zealand	Trachichthyidae	Slimeheads nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	TOTAL	TOTAL	TOTAL	1,600	1,400	1,100	1,300	1,252	1,106	1,066	12,538	29,518	7,448	36,756	49,646	30,502	33,783	32,030	42,828	31,403	29,497	29,575	26,839

Country	Species	Species	Fishing area	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
New Zealand	Allocyttus niger	Black oreo	81	...	...	...	...	...	...	...	...	...	...	...	1,999	4,586	4,452	5,226	4,856	6,136	5,652	5,762
Ukraine	Allocyttus niger	Black oreo	81	-	-	-	-	-	-	-	-	-	-	-	-	-	3	233	...	57	...	...
New Zealand	Dissostichus eleginoides	Patagonian toothfish	81	...	...	...	...	...	...	1,061	5	43	1	0	14	...	...	3	...	...	90	308
Chile	Dissostichus eleginoides	Patagonian toothfish	87	9,387	10,969	26,918	20,997	20,902	15,694	8,959	8,077	9,183	11,193	10,951	6,521	6,787	5,376	4,864	5,251	4,469	4,383	4,752
Spain	Dissostichus eleginoides	Patagonian toothfish	87	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-
Chile	Epigonus spp	Cardinal fishes nei	87	-	-	579	862	137	232	513	1,727	5,284	2,999	5,792	4,648	1,595	3,276	2,070	2,229	1,536	801	351
New Zealand	Epigonus telescopus	Black cardinal fish	81	3,500	3,164	1,803	2,049	4,291	3,650	3,002	4,334	2,568	2,869	4,095	1,957	2,741	2,879	2,063	1,525	3,115	1,804	1,302
Ukraine	Epigonus telescopus	Black cardinal fish	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	...	-	-	-
New Zealand	Hyperoglyphe antarctica	Bluenose warehou	81	1,485	1,922	2,262	2,387	42	2,719	2,432	2,974	2,630	2,755	2,793	2,954	3,001	3,043	3,178	2,977	2,553	2,627	2,516
New Zealand	Neocyttus rhomboidalis	Spiky oreo	81	...	...	...	...	...	...	...	...	...	...	...	28	149	156	159	123	49	96	104
Ukraine	Neocyttus rhomboidalis	Spiky oreo	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	...	-	-	-
China	Oreosomatidae	Oreo dories nei	81	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-
New Zealand	Oreosomatidae	Oreo dories nei	81	19,672	19,790	19,544	23,216	22,602	21,833	18,776	21,850	21,095	22,646	22,775	15,646	2	2	0	0	0	0	4
Norway	Oreosomatidae	Oreo dories nei	81	360	27	3	1	11	-	1	-	1	-	-	-	-	-	-	-	-	-	-
Russian Federation	Oreosomatidae	Oreo dories nei	81	251	93	51	-	18	-	5	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	Oreosomatidae	Oreo dories nei	81	-	-	4	-	-	-	-	-	-	-	-	-	-	-	210	...	283	...	...
Un. Sov. Soc. Rep.	Oreosomatidae	Oreo dories nei	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	Paratrachichthys trailli	Sandpaper fish	81	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	...	-	-	-
New Zealand	Polyprion oxygeneios	Hapuku wreckfish	81	1,026	1,121	1,263	1,439	1,448	1,536	1,155	1,657	1,571	1,547	1,497	1,579	1,610	1,706	1,511	1,881	1,684	1,786	1,674
Ukraine	Polyprion oxygeneios	Hapuku wreckfish	81	-	-	-	-	-	-	-	-	-	-	9	14	-	5	13	...	-	-	-
Chile	Polyprion oxygeneios	Hapuku wreckfish	87	79	73	51	42	37	33	23	30	26	8	7	10	2	-	16	2	0	0	3
New Zealand	Pseudocyttus maculatus	Smooth oreo dory	81	...	...	...	...	...	...	...	...	...	...	...	6,492	12,888	10,653	14,192	12,387	10,685	12,089	9,735
Ukraine	Pseudocyttus maculatus	Smooth oreo dory	81	-	-	-	-	-	-	-	-	-	-	-	-	-	1	368	...	97	...	...
China	Pseudopentaceros richardsoni	Pelagic armourhead	81	-	-	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-
New Zealand	Pseudopentaceros richardsoni	Pelagic armourhead	81	-	-	-	-	-	3	7	2	78	13	6	7	37	53	106	119	69	29	42
Ukraine	Pseudopentaceros richardsoni	Pelagic armourhead	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	...	-	-	-
New Zealand	Trachichthyidae	Slimeheads nei	81	-	-	-	-	-	-	-	-	7	3	4	2	12	10	14	12	7	2	7
TOTAL	TOTAL	TOTAL	TOTAL	35,760	37,159	52,478	50,993	49,488	45,700	35,934	40,656	42,486	44,034	47,929	41,882	33,446	31,616	34,248	31,362	30,740	29,359	26,560