

A comparative study of annual tuna catches from two different sources: FAO global capture database vs tuna RFMOs statistical databases (2000 - 2014)

By Ana Justel-Rubio¹, Luca Garibaldi², John Hampton³, Mark Maunder⁴ and Víctor Restrepo⁵
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SUMMARY

Tuna catch data from the two main sources of global tuna catches (tuna Regional Fisheries Management Organizations and FAO capture database) are compared for the period 2000-2014. While the global difference between datasets is around 5% in recent years, discrepancies at species or at region level are in some cases over 10%. Potential sources of discrepancies identified are: different geographic limits in the areas of study, attribution of catch to different flags (sometimes due to vessel charter agreements or other arrangements), RFMO non-member countries reporting only to FAO, different data sources, artisanal fisheries data reported only to FAO and inclusion or non-inclusion of farming data. Recommendations are presented on how to address these discrepancies so as to harmonize the datasets.

1. Introduction

In this study we carry out a comparative analysis of the most important databases of tuna catch at a global level: those from FAO and tuna RFMOs (t-RFMOs), both of whom play a unique role in global fishery statistics. Tuna RFMOs compile catch information from their member countries and other sources on a regular basis and use this data for monitoring and to perform stock assessments of the species they are concerned with, as well as to inform management measures. FAO statistical data series, which mainly originate from members, are a largely used resource for global fisheries information, not limited to tuna and tuna-like species.

The purpose of this study is to conduct an overall comparison of total annual tuna catches from these two data sources for the 2000-2014 period; identify main discrepancies between the two by year, area and flag; and try to delineate possible causes for said differences.

The Glossary (**Appendix 1**) defines acronyms used in this document.

¹ International Seafood Sustainability Foundation (ISSF), Madrid, Spain

² Food and Agriculture Organization of the United Nations (FAO), Fisheries and Aquaculture Statistics and Information Branch

³ Pacific Community (SPC) - Oceanic Fisheries Programme

⁴ Inter-America Tropical Tuna Commission (IATTC) – Stock Assessment Program

⁵ International Seafood Sustainability Foundation (ISSF), Washington D. C., USA

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2. Data and Methods

2.1. Data sources

FAO

The FAO Fisheries and Aquaculture Statistics and Information Branch (FIAS) compiles, analyses and disseminates fishery data, structured within data collections. The FAO global capture database includes data by three variables: country or territory, species item, and FAO major fishing area.

Data are mostly submitted by national correspondents in the appropriate Ministry or Department of Fisheries but, following a recommendation of CWP-18 (FAO, 1999), FAO is complementing and/or replacing catch data received from national correspondents with those available from RFMOs/RFBs which are supposed to be the “best scientific estimate”.

RFMOs/RFBs from which FAO derives catch statistics include: IATTC, ICCAT, IOTC, WCPFC for tuna and shark catches, SEAFO and SPRFMO for high seas catches, CCAMLR for catches in the Antarctic, IWC for marine mammals. However, for major tuna fishing countries which operate in many different FAO major fishing areas [e.g. Japan, Korea Rep., Russia Fed., Taiwan Prov. of China (Chinese Taipei in the t-RFMOs terminology), and USA] data included in the FAO database are still those provided by the national offices, mostly to avoid confusion among the areas and maintain a trustful relationship with the national institutions submitting the information.

On the other hand, FAO receives data on tuna catches from several countries which do not return information to the t-RFMOs or are not members of these organizations, as well as for subsectors (e.g. artisanal fisheries) which may not be covered in the reports submitted to the t-RFMOs. In recent years, some regional tuna bodies (e.g., ICCAT and IOTC) have included some of these data obtained by FAO in their databases, after the scrutiny and approval of their relevant working groups.

FAO has been progressively using catch data from t-RFMOs to replace those provided by national correspondents (see **Figure 1**) and held previous discrepancy exercises with SPC (Lawson and Garibaldi, 2000) and ICCAT (Garibaldi and Kebe, 2005 and 2006).

RFMOs

To varying degrees, tuna RFMOs also rely on reporting by national correspondents in their member countries and cooperating non-members. In a given country, the national correspondents that report to FAO and the RFMOs may be different individuals or offices within an organization. Like FAO, the RFMOs have to address concerns about data coverage and uneven data quality. The processes used by FAO and the RFMOs to do this are not necessarily the same. There are also differences between RFMOs, and even within RFMOs

for different species. In addition, RFMOs sometimes use other sources of information not generally available to FAO, such as data from observer programs or catch documentation systems.

IOTC:

The IOTC Secretariat sends periodic requests for data on the fisheries for tuna and tuna-like species in the Indian Ocean. These requests are not only addressed to Member of the Commission but to all countries involved in the different fisheries. Data submitted by the countries must conform to the minimum mandatory data requirements and they are subject to the rules of confidentiality adopted by the Commission ([IOTC Resolution 15/02 On Mandatory Statistical Requirements](#); [IOTC Resolution 12/02 On Data Confidentiality Policy and Procedures](#)) (www.iotc.org). When a stock is assessed (usually every 2 to 4 years), a working group formed by national scientists from member countries and Secretariat staff meet to review the available data and make the necessary corrections to address gaps (e.g. by estimating the magnitude of unreported catches, or by detecting double reporting).

ICCAT:

ICCAT follows a very similar process than IOTC, by requesting data from member and non-member countries and subjecting the data to periodic reviews, usually done during preparatory meetings for stock assessments (www.iccat.int).

IATTC: The IATTC follows a process that is similar to ICCAT and IOTC for some species and fishing gears, but not for others. For tuna caught by gears other than tropical tuna purse seine, the process is similar and relies mainly on reporting by member countries. For tropical tunas caught by purse seine (which represent X% of the IATTC tuna catches), retained and discarded catch datasets are derived from various sources, including vessel logbooks, observer data, unloading records provided by canners and other processors, export and import records, reports from governments and other entities, and estimates derived from the IATTC species and size composition sampling program. Data from all those sources are compiled in a database by the IATTC staff and summarized in the annual Fishery Status Report (IATTC, 2016). Thus, IATTC differs from the other RFMOs in that it has its own regional data collection program for tropical tunas.

WCPFC: WCPFC also collects data from members and cooperating non-members. Statistics from fishing gears such as longline and pole and line largely depend on these reports. For tropical tunas caught by purse seiners, the WCPFC also has a regional observer programme. WCPFC receives data from this programme, as well as from logbooks, which it uses to calculate catch by species and country. Thus, like IATTC, WCPFC also has access to data other than from member reporting, which it uses to address data gaps.

The Oceanic Fisheries Programme of the Pacific Community (OFP-SPC) undertakes the role of Science Services Provider and Data Manager for WCPFC and, as part of its activities, manages the WCFPC scientific data submission process and performs the compilation, quality control and management of the WCPFC databases.

CCSBT: The CCSBT collects a variety of data types from its Members, Cooperating Non-Members and Other States/Fishing Entities Cooperating in the Catch Documentation System. Members and Cooperating Non-Members (CNMs) are expected to provide information on the total catch of southern bluefin tuna (SBT) per fleet, aggregated SBT catch information. (www.ccsbt.org).

We note that, for several categories, FAO uses terms different than those used by RFMOs. For example, FAO uses “countries and territories” whereas RFMOs use “flag”, or different country designations (e.g. “France”/ “EU.France”, “Taiwan Prov. Of China”/ “Chinese Taipei”), etc. In this report, t-RFMOs terminology was mostly used to simplify the work.

2.2. Methods

FAO’s global capture production database updated to 2014 data (FAO, 2016) was consulted through the FishStatJ software, downloaded on 30 May 2016.

The latest version available of statistical databases from the five tuna RFMOs (CCSBT, IATTC, ICCAT, IOTC and WCPFC/SPC) as of June 2016 were also downloaded and combined with FAO data into a consolidated database of annual tuna catch with the following fields: species, ocean, area stock (where available), year, reporting flag, gear group (where available) and catch (t).

Species included in the study are albacore tuna (*Thunnus alalunga*), bigeye tuna (*Thunnus obesus*), yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*), Atlantic bluefin tuna (*Thunnus thynnus*), Pacific bluefin tuna (*Thunnus orientalis*) and southern bluefin tuna (*Thunnus maccoyii*). The period chosen for the purpose of this study is 2000-2014.

Once the database was compiled, the first approach was to perform a global comparison of all data pooled together (all species, all oceans) so as to study the temporal trend in annual absolute differences in total catch from the two data sources: FAO and tuna RFMOs.

Subsequently, this comparison was refined by looking at absolute annual differences in total catch for each species (all oceans) and for each ocean (all species).

After having examined data from a global perspective, the following steps consisted on a much more detailed scrutiny of the data. For that purpose, total annual tuna catch differences were calculated by *Ocean-Species-Year-Flag* strata. Rather than starting the analysis of data at such a refined level, these differences were aggregated by removing the Flag category, resulting in total differences at the *Ocean-Species-Year* level. The aim of displaying results at this level was being able to identify those strata where bigger differences in total annual catch occur, and only in those cases, re-examine afterwards the data previously broken down into *Ocean-Species-Year-Flag* strata.

The Flag category included two non-country levels labelled “Other” and “Mixed” for catches that were so categorized in the original datasets. Where data from one of the two sources were originally combined into only one of these non-country Flag types, the “Other” and “Mixed” levels were also combined for the other data source to avoid errors in the calculation of net differences.

Aggregated catches from different species (i.e. “tropical tuna NEI⁶”) were excluded from these analyses because that type of data was not readily available in the FAO capture database, and, hence, comparison was not feasible.

Once main discrepancies were identified, the finer comparison made by *Ocean-Species-Year-Flag* was re-examined with the objective of identifying the specific Flags for which differences in tuna catch were greater.

3. Results

3.1 Overall comparison

The consolidated database included 40,276 observations corresponding to 151 unique flags and 15 years.

Figure 2 shows the temporal trend in absolute differences between FAO and RFMO annual catch data for all species and oceans pooled together (dashed line). At first sight, differences in total annual catch seem to have been fairly low up to 2009, but increasing since then. In recent years, the FAO catches are 5% to 6% higher than the combined RFMO data.

Absolute differences in catch grouped by species and oceans are shown in **Figures 3 and 4**, respectively.

When comparing species (**Figure 3**), it can be easily noted that the most increase in discrepancies since 2009 is due to skipjack catches, which differences match those showed in the global picture (**Figure 2**). This is somewhat also the case with yellowfin tuna, although in this case the most pronounced difference occurred in 2013. For albacore, bluefin species and bigeye tuna the trend of discrepancies is substantially different. Albacore tuna catch from both data sources seem to overlap more closely in the latter years of the period studied, while differences in bluefin tuna catches have fluctuated from fairly small to larger differences during the whole time series. In particular, catches of PBF presented the highest discrepancies among datasets (up to 32%), followed by SBT (up to 9%) and BFT (up to 4%). Bigeye tuna series do not present a clear trend, as data from both sources closely match in some years (e.g. 2008, 2013), but present high peaks in catch differences of almost 40,000 t some other years (e.g. 2000, 2009).

As with individual species, trends in catch differences are not the same in all oceans (**Figure 4**). Although the trend of discrepancies in the Pacific Ocean is fairly similar to the global

⁶ The term NEI is used by some RFMOs to indicate data not included elsewhere

trend (**Figure 2**), the profiles for Indian Ocean, Atlantic Ocean and Southern part of the Oceans (SBT catches) are all distinct. In the Indian Ocean, gaps in catches from both sources have become increasingly smaller except for 2014 (see explanation in the [Indian Ocean section in 3.3](#)). Both in the Atlantic and in the Southern part of the Oceans (SBT catches) there has been considerable variability, with an increase in differences in the latter years.

3.2 Ocean-Species-Year comparison

The comparisons of total annual catch at the *Ocean-Species-Year* level were grouped according to the four possible outcomes:

- Flag is present in both datasets and FAO catch > RFMO catch
- Flag is present in both datasets and FAO catch < RFMO catch
- Flag is present only in FAO dataset
- Flag is present only in RFMO dataset

Figures 5-11 show for each stock the quantitative discrepancies in total annual catch by ocean and by species, as well as total net difference between catches reported by FAO and those found in the t-RFMO datasets. Pacific Ocean catches were pooled together by species, as catches were not always grouped in East-West or North-South stocks. Similarly, albacore tuna stocks in the ICCAT convention area (Atlantic Ocean and Mediterranean Sea) were compared as a whole. In this case, however, Mediterranean Albacore could be compared also at the stock level (see **Figure 9**). ICCAT skipjack and bluefin tuna stocks were studied both at the stock level and at ocean level in order to identify possible discrepancies derived from differences in the geographic areas used by ICCAT and FAO in their catch statistics.

FAO and t-RFMOs do not use the same area definitions. While FAO classifies catches by Major Fishing Areas, t-RFMOs use stock areas, which do not always share the same geographic limits. For instance, ICCAT stock areas boundaries do not exactly match those of FAO Major Fishing Areas in the Atlantic Ocean, plus, some ICCAT stock areas have different limits for different species stocks (**Figure 12**).

Furthermore, the boundary between FAO areas 47 and 51 is set at 30°E while the areas of competence of ICCAT and IOTC match the geographical border between the Atlantic and Indian Oceans at 20°E. On the other hand, the eastward limit of IOTC coincides with that of FAO area 57 at 150°E whereas the WCPFC has its westward limit below Australia at 140°E with an overlap between its area of competence and that of IOTC. In the Pacific Ocean there are six FAO Major Fishing Areas which do not match with the vertical partition of the ocean between WCPFC and IATTC.

Overall, the greatest discrepancies in quantities and in percentage were found in Pacific Ocean catches. In terms of species, largest differences in tons rely on skipjack catches, mainly due to skipjack being the species caught in largest quantities (**Figure 5**). When looking at percentages, Pacific bigeye, yellowfin and bluefin are the species with higher discrepancies (**Figures 5 and 6**). Indian Ocean Albacore also presents notable discrepancies in percentage in years 2000-2002 (**Figure 8**).

This comparison also showed some increasing trends in catch differences from the two databases in this study for some areas/ stocks (e.g. SKJ in the Pacific Ocean).

3.3 Ocean-Species-Year-Flag comparison

The comparison at the *Ocean-Species-Year-Flag* level was used to determine the exact flags for which there were large differences by year. For instance, differences in Mediterranean Albacore for years 2009-2013 were identified as Tunisian catches only reported to FAO and not to ICCAT (**Figure 9**).

The case of tropical tuna catches (bigeye, yellowfin and skipjack tuna) in the Pacific Ocean was given especial attention, given the large divergences in total catches. **Table 1** shows a summary of tropical tuna 2014 catch by flag reported by FAO, IATTC and WCPFC, as well as differences in total catch. Philippines catches are substantially different (~385,000t according to FAO, ~272,000t according to WCPFC). Differences in Philippines catches are consistent throughout the whole time period 2000-2014 (**Figure 5**) and they may be due to two reasons: i) possible inclusion in the data reported to FAO of catches from artisanal fisheries that are not covered by WCPFC; and/or ii) Philippines reporting to FAO catches by vessels flagged in the Philippines fishing in Papua New Guinea under charter agreements, which are instead considered by WCPFC as Papua New Guinea's catches. This issue needs further investigations in order to avoid possible double counting in the FAO database.

It was noted that net values close to zero at the *Ocean-Species-Year* level do not always reflect similar catches reported by FAO and the t-RFMOs. In some cases, catches from flags only present in the FAO database ("SumFAO"/ grey bars in the figures) will compensate the lack of catches in the FAO database of catches only found in t-RFMOs ("SumNoFAO"/orange bars in the figures) and/or of extra catches found for a specific flag that is present in both databases ("RFMO>FAO"/ red bars in the figures), or vice versa. This results in a misleading net value of near zero when subtracting one total annual catch from the other. See for instance 2008 Atlantic yellowfin catches (**Figure 9**), where net value (black line in the figure) is close to a zero value, however, it is evident that there are notable differences in data from both databases, as there are near 1,300 t only recorded in FAO's database (grey bar) and near 1,300 t extra recorded in ICCAT's database for Flags present in both databases (red bar).

In other scenarios, net annual values close to zero were explained by extra catches in the FAO database from country "A" that are compensated by catches in the t-RFMO database from country "B", even if catches from both countries are present in both databases. An example of this outcome can be found in the Atlantic Ocean bigeye tuna stock in 2005 (**Figure 9**), where the net value is practically zero, however, when inspecting catches at the *Ocean-Species-Year-Flag* level we encountered that most catches present in the FAO database –but missing in the ICCAT database– correspond to Japan. Most catches present in the ICCAT database, but not included in the FAO database correspond to Portugal and USA. For all three flags there are catches reported in both databases, however, there are some discrepancies at the flag level total. In the Atlantic Ocean BET example, a net value near zero is not a result of catches for a particular flag not being present in one of the databases, as both the "SumFAO" and "SumNoFAO" are practically zero (grey and orange columns in **Figure 9**).

Tables in **Appendix 2** show total catch differences for the whole period 2000-2014 by flag grouped in two categories ('FAO catch > RFMO catch' and 'RFMO catch > FAO catch') and ranked from bigger to smaller discrepancies. Flags on the first three rows of these tables are shown as complementary information for each stock in **Figures 5-11**. These tables also include total catches only reflected in the FAO database ("SumFAO") and those only included in t-RFMO databases ("SumNoFAO") for the 2000-2014 period.

When analyzing trends found in different oceans, several aspects that need further investigation were identified.

Pacific Ocean:

Pacific Ocean catches of tropical tuna in the t-RFMO datasets include large numbers recorded under the "Other" category. Further consultations with the corresponding t-RFMOs are deemed necessary in order to clarify whether those catches correspond to some of the catches identified in this work as "SumFAO" or "FAO>RFMO".

Philippines, Chinese Taipei, Republic of Korea and Japan are the main countries with differences in total catch for Pacific Ocean species (**Figures 5-6**). It is worth noting that Pacific albacore catches are higher in the t-RFMO's database when compared to FAO's throughout the time series.

Some of the differences in Pacific Ocean catches might be explained by the lack of clear WCPFC guidelines on catch attribution. Most of the inconsistencies in catch attribution practices across CCMs in the WCPFC involve chartered vessels. The main type of inconsistency involves how catches on the high seas by chartered vessels are attributed in the situation where the charterer is located in a country (host State) other than the flag State of the chartered vessel (i.e. whether to attribute the catch to the host country or to the flag State). These situations may lead to some double counting, or at least to situations that need to be resolved between pairs of countries to eliminate double counting (Gillett, 2011).

Southern part of the Oceans:

As regards the Southern part of the Oceans, discrepancies among datasets for southern bluefin catches are small in absolute quantities, mostly due to restrictions in place that limit catch of this species. Differences in percentage are notable and occur during the whole time period under study. Since 2008 most discrepancies are due to Australian flag catches in the FAO database being higher than those in the CCSBT database. Peaks in 2001, 2004 and 2006 where the opposite occurs (higher catches included in the CCSBT database) are linked to discrepancies in Japan and Chinese Taipei annual catches (**Figure 7**).

Indian Ocean:

For Indian Ocean tropical tuna stocks, there are several years with negative net values as a result of catches in the IOTC dataset assigned to flags not found in the FAO database for that species/area combination (orange bars in **Figure 8**). When looking at detailed data (**Appendix 2**) it was determined that these catches are assigned to flag categories "mixed"/

”mixed fresh”. These negative values are mostly found in early years of the period studied for yellowfin and skipjack stocks.

In the second half of the time series it is more common to see discrepancies in catches assigned to flags present in both databases (blue and red bars in **Figure 8**). Upon visual examination, it seems that most of these discrepancies might be due to same catches being reported under different flags to FAO and IOTC (France/ France Mayotte⁷). The notable high peak in net difference in 2014 yellowfin tuna catches was due to catches from the Spanish fleet reported to FAO that were not replaced with the IOTC datum. This datum will be revised in the next release of the FAO database including 2015 data. Other differences found in 2014 catches may be a result of IOTC releasing 2014 catch statistics later than previous years, which led to FAO using a previous version of the IOTC database for Indian Ocean statistics.

Regarding albacore tuna catches, in years 2000-2002 catches reported to IOTC are much greater than those recorded in the FAO database, almost exclusively those under the Chinese Taipei flag.

Atlantic Ocean:

In the Atlantic Ocean, there are a number of inconsistencies between both datasets under analysis (**Figures 9-11**). Bigeye tuna Chinese Taipei catches in the first years are much larger according to the FAO database than to ICCAT's. However, exactly the opposite occurs with Chinese Taipei catches for years 2003-2004.

Yellowfin tuna catches under the USA flag reported to ICCAT are greater than those reported to FAO. In the later years (2011-2014) there seems to be a greater amount of catch only reported to FAO from countries like Suriname, Equatorial Guinea, Colombia and Dominican Republic (not all of which are ICCAT members/cooperating non-members).

While West Atlantic skipjack catches are consistent among databases, several discrepancies are found along the studied time period for the Eastern Atlantic stock. Flags identified as only reporting to FAO are Togo, Equatorial Guinea and Lithuania, among others.

In both the Eastern Atlantic skipjack and yellowfin tuna stocks, the “Other” flag category must be given especial attention, as it might be causing some of the inconsistencies identified in this work.

Studying skipjack at the ocean level slightly decreased differences found at the stock level for several flags (Chinese Taipei, Netherlands, Portugal, Japan, Spain and St. Vincent and the Grenadines), however, the analysis result was not significantly improved. Thus, the main discrepancies among datasets cannot be attributed to different geographic limits of the areas to which skipjack catches are allocated.

⁷ Mayotte changed its status on 31 March 2011 becoming a French overseas department and part of the European Union. IOTC moved Mayotte's purse seine catch series under "EU.FRANCE" since the database updated to 2013 data. Consequently, also FAO transferred IOTC derived catch data from Mayotte to France. However, the version of the IOTC database used to perform this study included again the purse seine data under Mayotte originating the large discrepancies highlighted in the text and in Figure 8.

Atlantic bluefin tuna catches show small quantitative differences, however, some were identified, such as greater Algerian catches in the ICCAT dataset for Eastern Atlantic and Mediterranean BFT, and greater USA catches for the Western BFT ICCAT dataset.

Studying bluefin tuna at ocean level helped reduce discrepancies in catches from Japan, Republic of Korea and Portugal. The most drastic example of this reduction in discrepancies were Japan catches, as more than 1,000 tons had been allocated to the opposite stock (East vs West) in FAO and ICCAT databases in 2000-2014. In this case, it is highly probable that differences in spatial limits were a major cause for discrepancies among data sources.

Only Mediterranean albacore catches could be compared at stock level, presenting only some catches assigned by FAO to Tunisia not found in the ICCAT dataset. When looking at Atlantic and Mediterranean albacore globally, the major discrepancies are Chinese Taipei catches in 2000 which are much greater in the ICCAT database, and Portuguese catches, larger according to the FAO database. Other main flags found only in the FAO database (besides Tunisia) are Dominican Republic and Suriname.

4. Summary and conclusions

All comparisons were performed using a consolidated database of FAO and tuna RFMOs annual catch data which included a total of 40,276 observations corresponding to 151 unique flags and 15 years.

Preliminary comparisons of total annual tuna catch in the FAO database and tuna RFMO databases resulted in some discrepancies in the period under study (2000-2014). Results of the comparison for each species (all oceans) and each ocean (all species) showed distinct profiles and the need to perform a finer comparison.

Comparison at the *Ocean-Species-Year* level was used to identify main trends in FAO and RFMO catches by stock. Overall, the greatest differences in total annual catches are for Pacific Ocean stocks, in particular skipjack tuna, possibly because of the large magnitude of catches of this species. There might be an increasing trend in annual catches discrepancies in recent years that should be further investigated.

Comparison at the *Ocean-Species-Year-Flag* level was carried out to better understand the identified general discrepancies. In addition, as a result of this deeper analysis, it was possible to determine cases where apparent discrepancies between both sources of information might not be as pronounced as expected; and cases where a priori both datasets contained similar levels of catch for a given stock/year, but in fact there seems to be large discrepancies when studied at flag level.

Pacific Ocean tropical tuna stocks were studied separately in more depth, as a great proportion of global tropical tuna catches originate in this area. **Table 1** summarizes flags to which main catches are attributed to.

In summary, different oceans and different stocks present different types of incongruences when comparing catches recorded in both FAO and tuna RFMO databases. Some of the main possible causes for these discrepancies identified during this analysis are:

- Use by FAO of Major Fishing Areas and of stock areas by most RFMOs, which sometimes present different boundaries. There are also some significant differences among the borders of the Oceans (Atlantic-Indian in South Africa and Indian-Pacific in Australia) between FAO and t-RFMOs.
- Same catches are sometimes assigned to different flags when reported to FAO and to t-RFMOs. In some cases, catches are reported under alternative flag categories such as “other”, “NEI”, “mixed”, “mixed frozen” that may or may not coincide with catches reported under country flag categories. These mixed categories are often used in t-RFMO databases. Efforts by the corresponding t-RFMOs working groups to reclassify these catches by flag would be highly beneficial.
- Similarly, the attribution of catch to a given flag may not be consistent between FAO and t-RFMOs when vessel charter agreements (or other arrangements) exist among countries.
- Catches from countries that are not members of the corresponding tuna RFMO may be reporting total tuna catch exclusively to FAO.
- FAO and t-RFMOs have often different sources. Capture statistics included in the FAO database are usually provided by the official national correspondent for fishery statistics while tuna agencies generally rely on information obtained by research institutes or on data presented and elaborated at their stock assessment groups.
- Data reported to FAO may include also catches from the artisanal fisheries sector which could be not covered in the data reported to t-RFMOs.
- Inclusion or non-inclusion of tuna farming production, in particular for bluefin tuna species.

Other conclusions:

- Apparent similar total catches among both databases at ocean-species-year may be deceiving. It is recommended to analyze catch data at flag level to better understand whether inconsistencies exist.
- Further analysis of the specific flags for which catch differences were identified is recommended, especially of flags that were found repeatedly in this comparison exercise.
- The authors highlight the need for further consultations with data managers from FAO and t-RFMOs in order to fully understand the origin of discrepancies among databases.

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IATTC EPO total estimated catch by year, flag, gear, species (1918-2014).
<https://www.iattc.org/Catchbygear/CatchByFlagGear.zip>

IATTC website www.iattc.org

ICCAT Nominal catches of Atlantic tunas and tuna-like fish, by gear, region and flag.
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IOTC Nominal catch by species and gear, by vessel flag reporting country.
<http://iotc.org/documents/nominal-catch-species-and-gear-vessel-flag-reporting-country>

IOTC website www.iotc.org

ISC Reported total annual landings (as of November 2015).
http://isc.fra.go.jp/fisheries_statistics/annual_catch_20151102.xlsx

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FIGURES

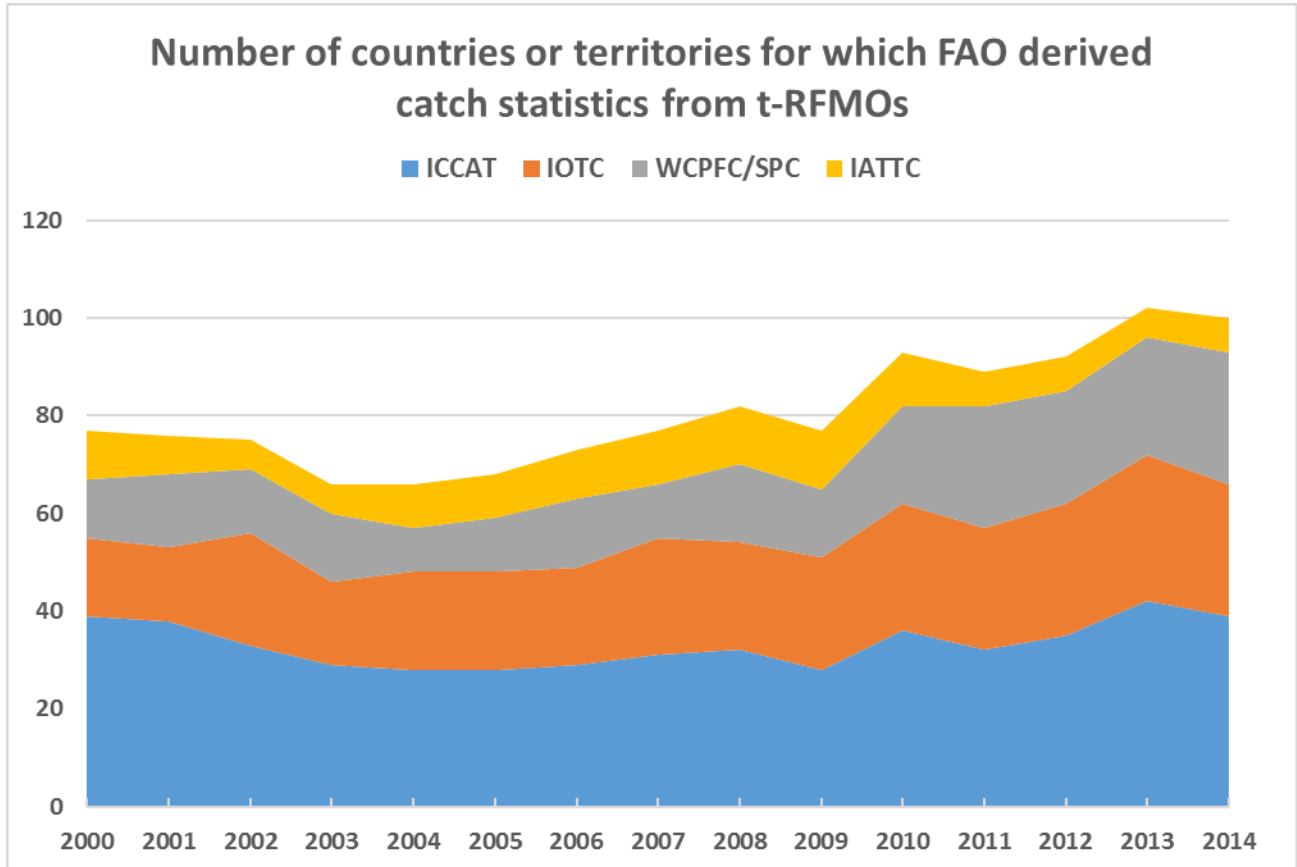


Figure 1. Number of countries or territories for which FAO derived catch statistics from t-RFMOs.

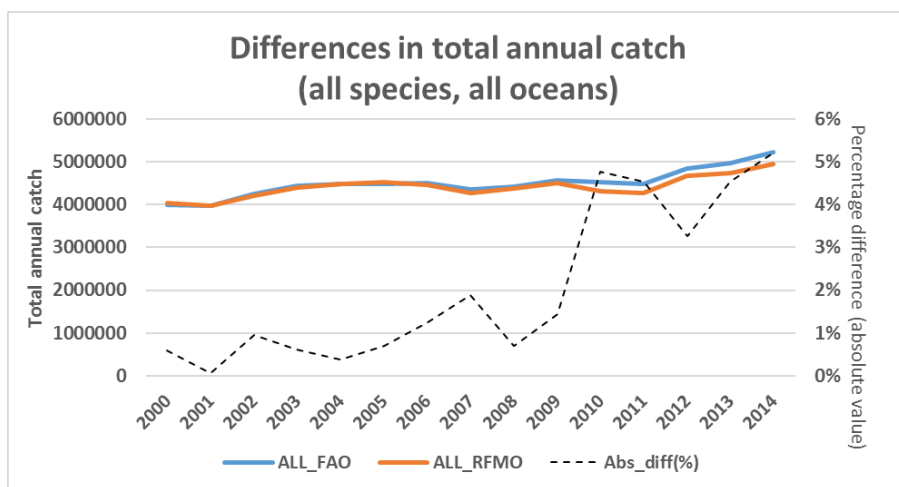


Figure 2. Total annual catch for all species and all oceans according to FAO and RFMO statistical databases. Dashed line represents absolute difference in percentage (right axis).



Figure 3. Total annual catch by species (in all oceans where the species is present) according to FAO and RFMO statistical databases. Dashed line represents absolute difference in percentage (right axis).

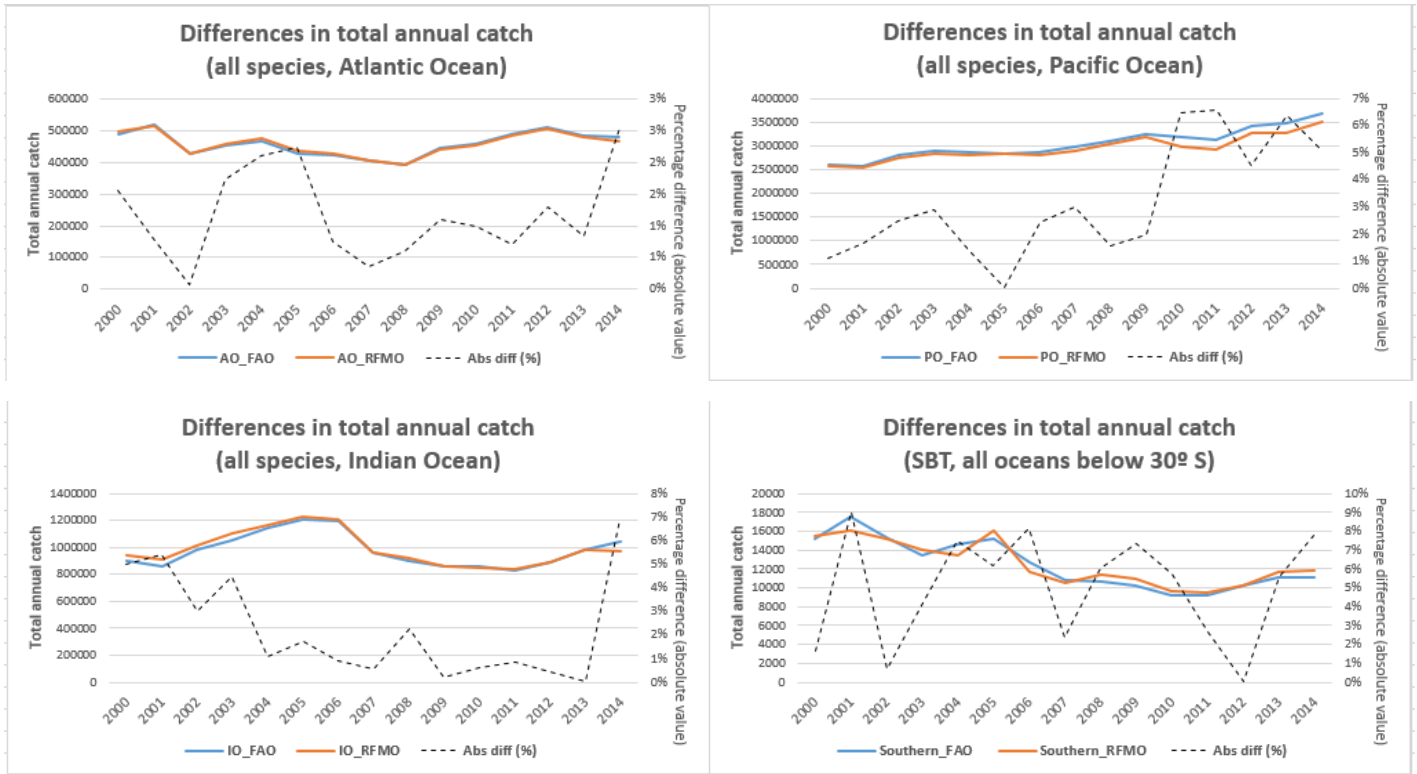


Figure 4. Total annual catch by ocean (all species) according to FAO and RFMO statistical databases. Dashed line represents absolute difference in percentage (right axis).

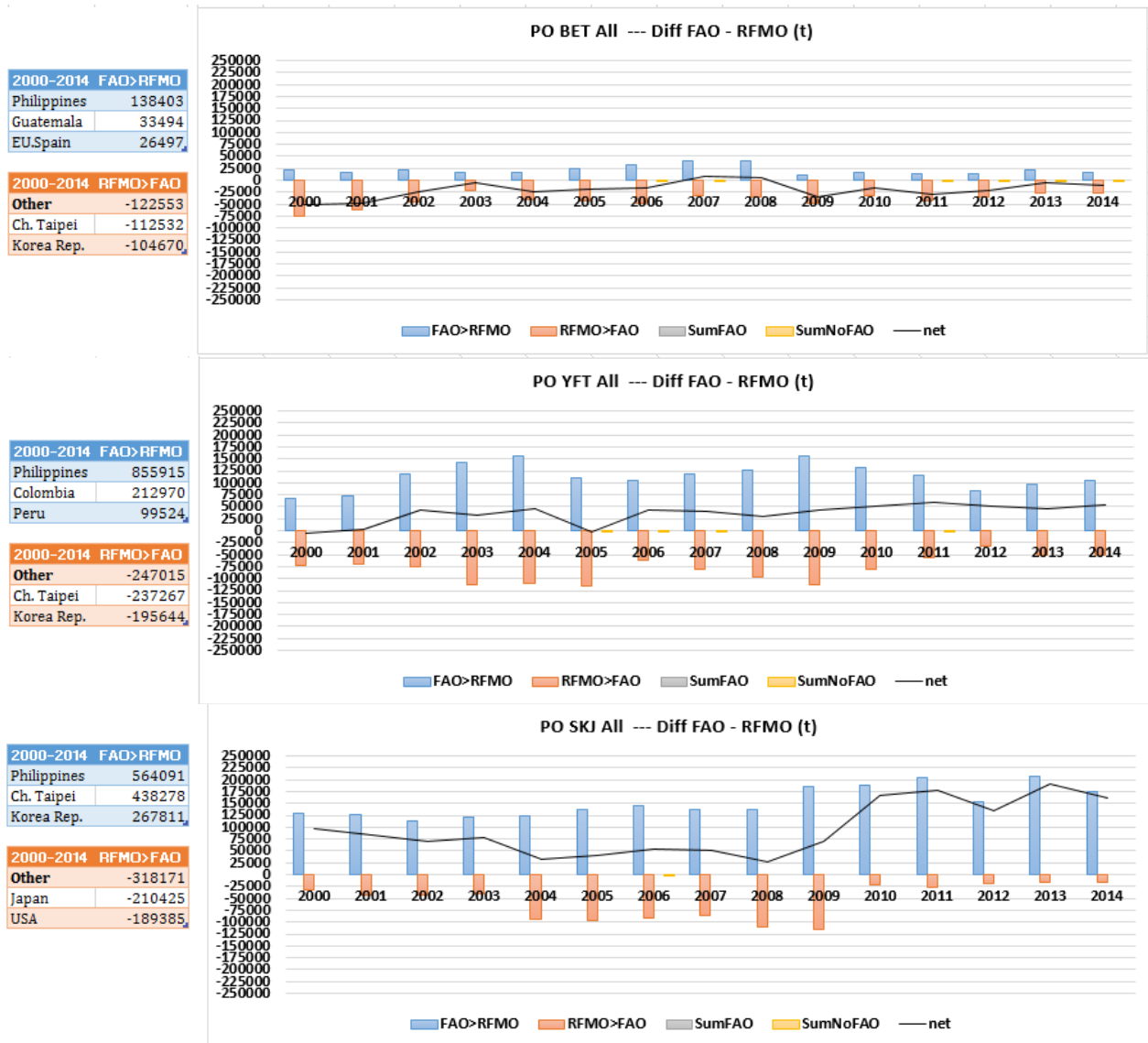


Figure 5. Total annual catch differences in Pacific Ocean bigeye tuna, yellowfin tuna and skipjack tuna. Tables on the left show the three Flags with greatest catch differences for each stock (number represents sum of annual differences for the whole 2000-2014 period).

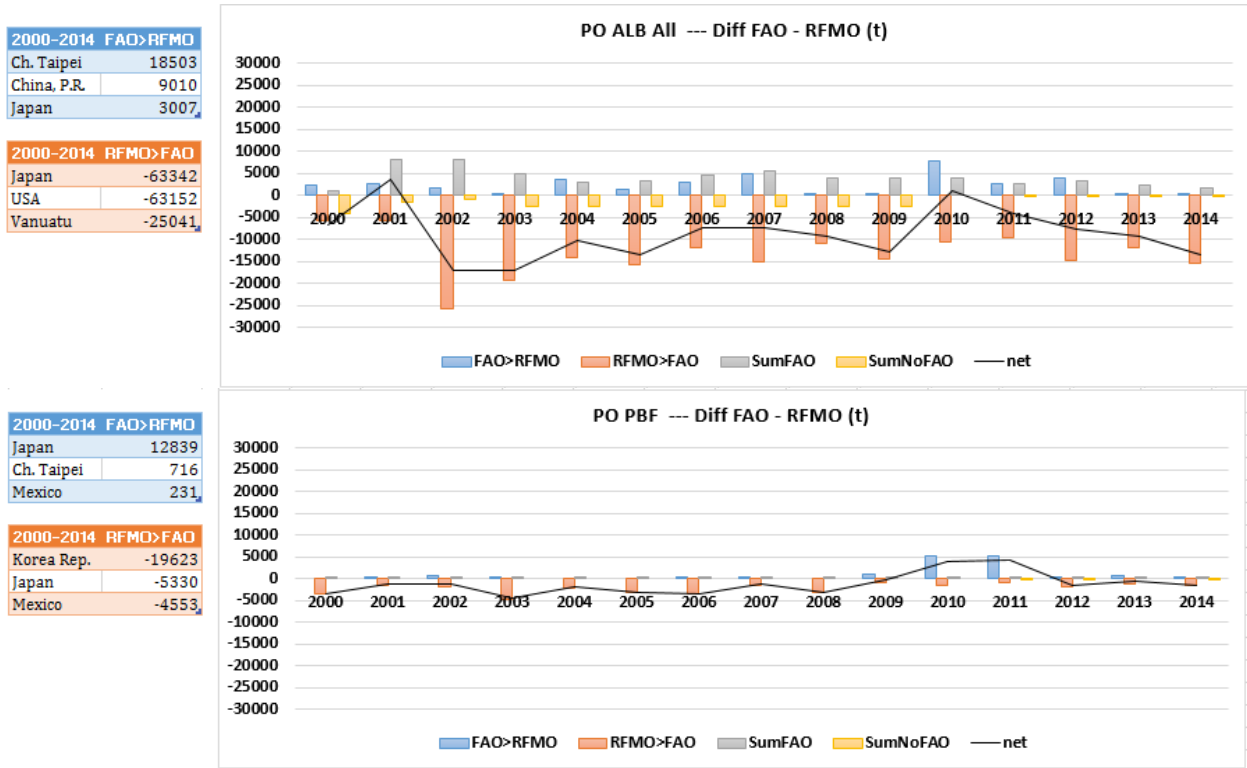


Figure 6. Total annual catch differences in Pacific Ocean albacore tuna and pacific bluefin tuna. Tables on the left show the three Flags with greatest catch differences for each stock (number represents sum of annual differences for the whole 2000-2014 period).

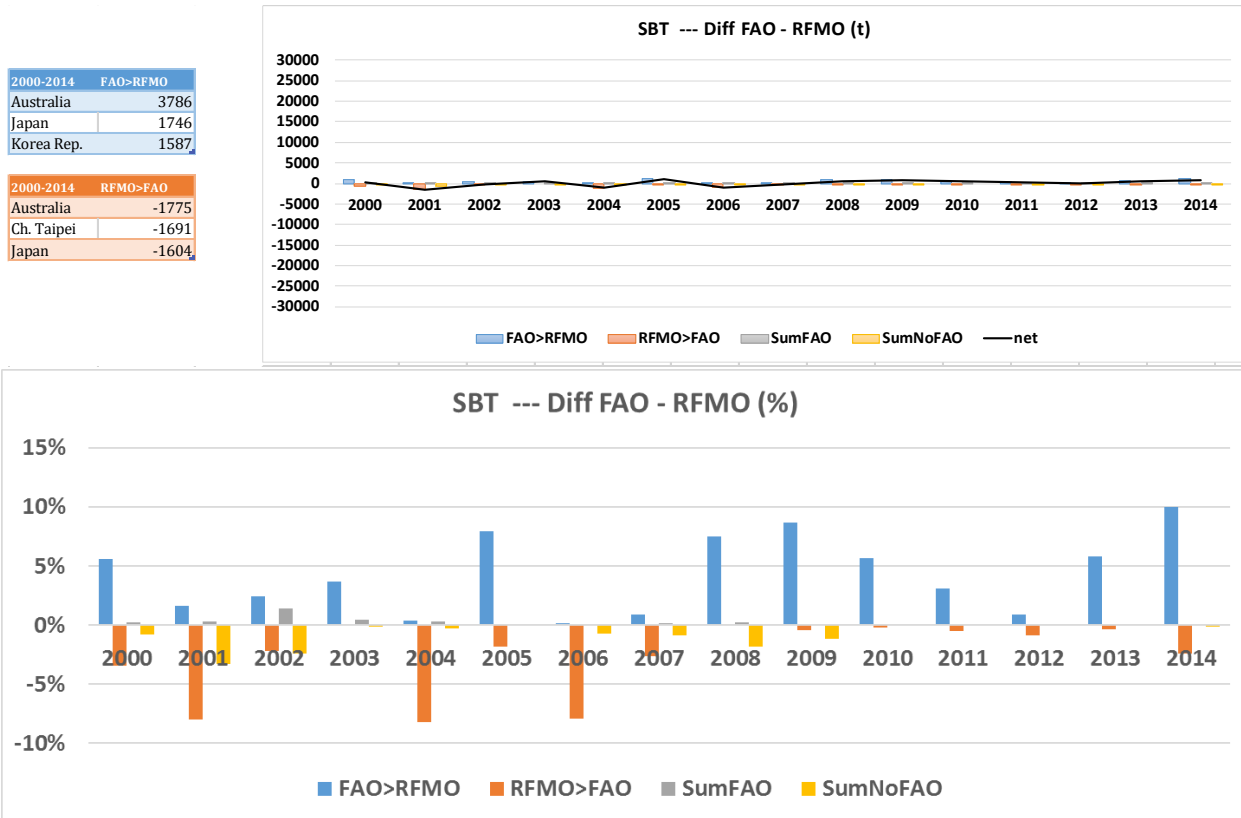
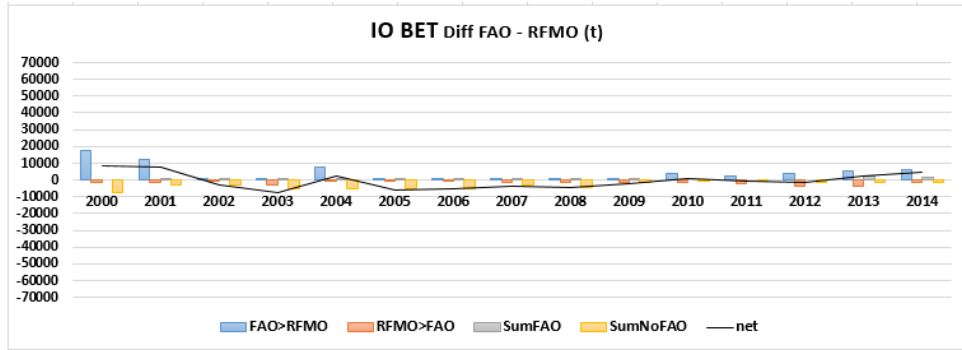


Figure 7. Top: Total annual catch differences in southern bluefin tuna. Tables on the left show the three Flags with greatest catch differences for the stock (number represents sum of annual differences for the whole 2000-2014 period). Bottom: SBT annual catch differences in percentage.

2000-2014 FAO>RFMO	
Ch. Taipei	36661
EU.France*	15155
India	2646

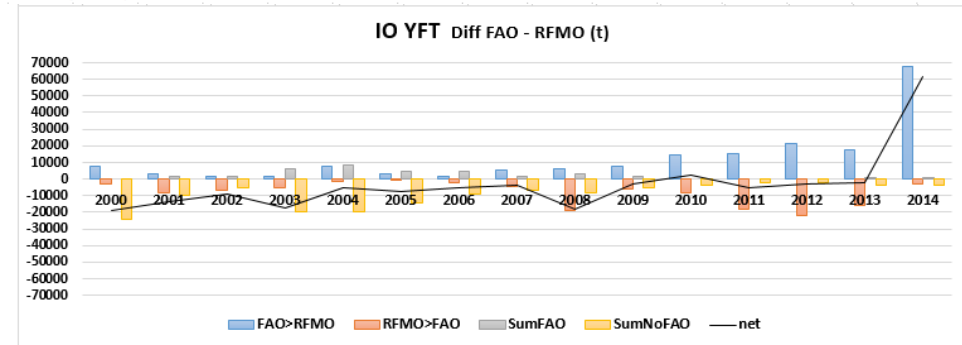
2000-2014 RFMO>FAO	
EU.FR.Mayotte**	-12396
Ch. Taipei	-4068
Tanzania	-3431



*Some years FR.Mayotte reported as EU.France to FAO
 **Some years reported as EU.France to FAO

2000-2014 FAO>RFMO	
EU.France*	88928
EU.Spain	48046
Pakistan	22614

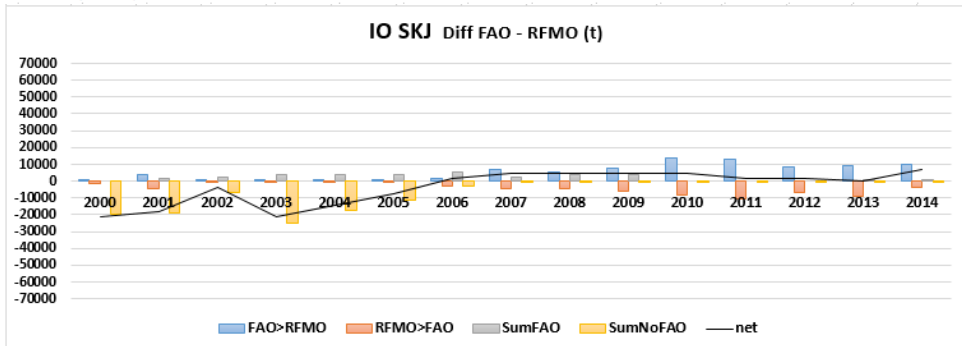
2000-2014 RFMO>FAO	
EU.FR.Mayotte**	-74280
Oman	-25137
Ch. Taipei	-14420



*Some years FR.Mayotte reported as EU.France to FAO
 **Some years reported as EU.France to FAO

2000-2014 FAO>RFMO	
EU.France*	63522
Pakistan	12602
India	2156

2000-2014 RFMO>FAO	
EU.FR.Mayotte**	-55637
Pakistan	-3249
Iran	-1601



*Some years FR.Mayotte reported as EU.France to FAO
 **Some years reported as EU.France to FAO

2000-2014 FAO>RFMO	
Ch. Taipei	4332
EU.France	1067
Japan	212

2000-2014 RFMO>FAO	
Ch. Taipei	-49070
Japan	-4042
China, P.R.	-1940

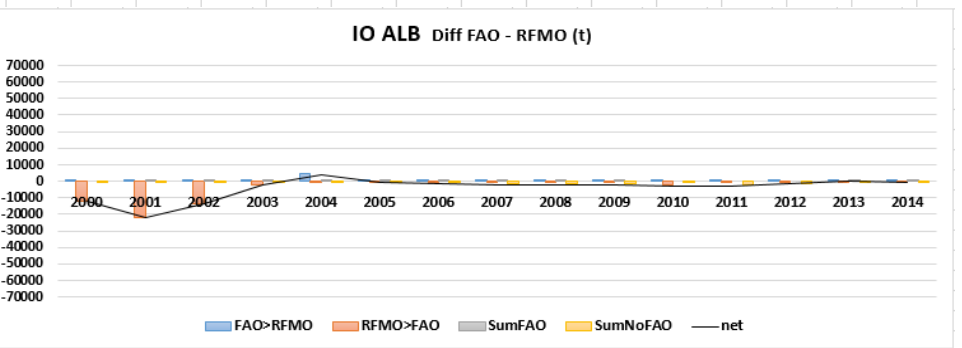


Figure 8. Total annual catch differences in Indian Ocean bigeye tuna, yellowfin tuna, skipjack tuna and albacore tuna. Tables on the left show the three Flags with greatest catch differences for each stock (number represents sum of annual differences for the whole 2000-2014 period).

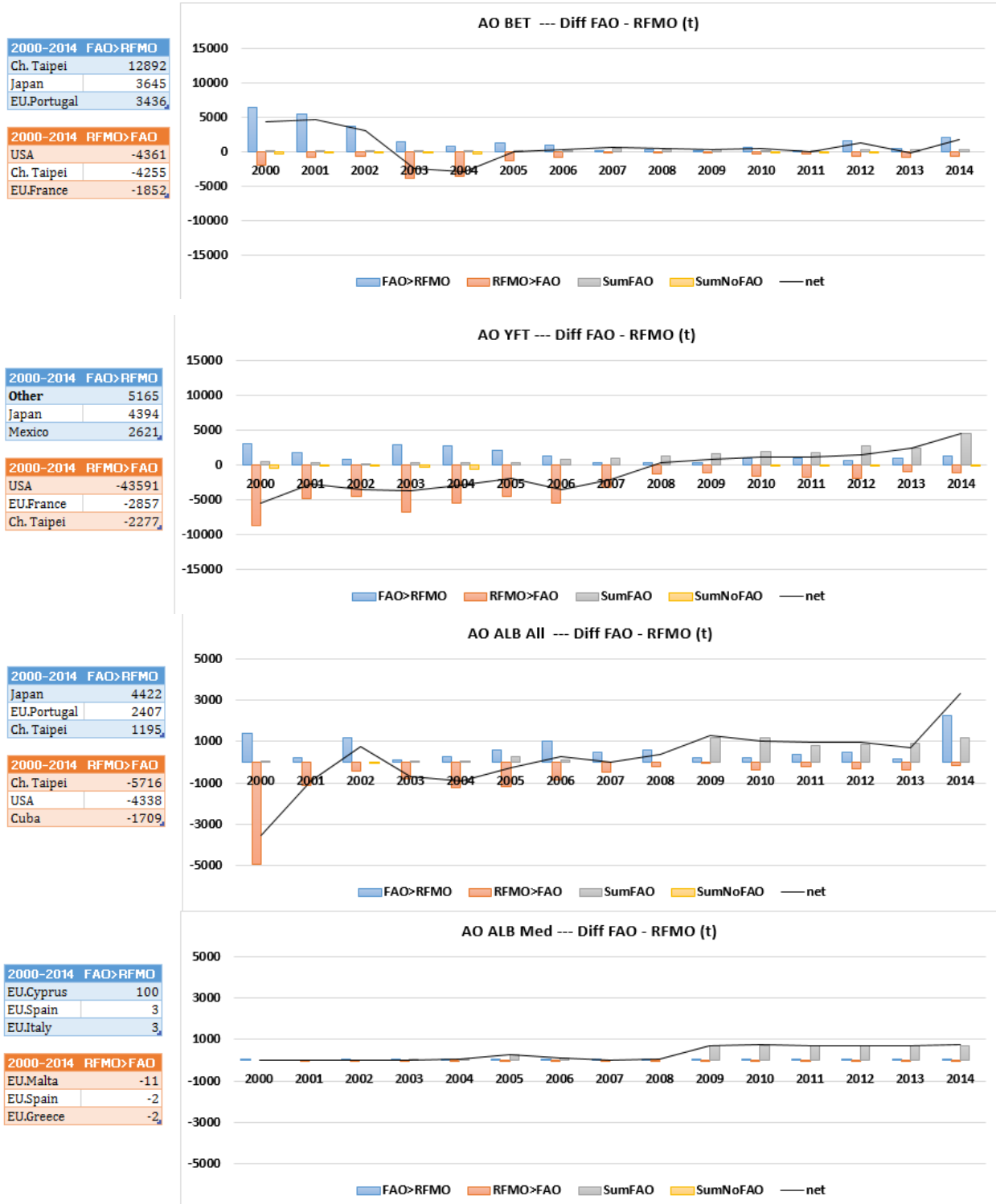


Figure 9. Total annual catch differences in Atlantic Ocean bigeye tuna, yellowfin tuna and albacore tuna (all Atlantic Ocean + Mediterranean Sea and Mediterranean stock isolated). Tables on the left show the three Flags with greatest catch differences for each stock (number represents sum of annual differences for the whole 2000-2014 period).

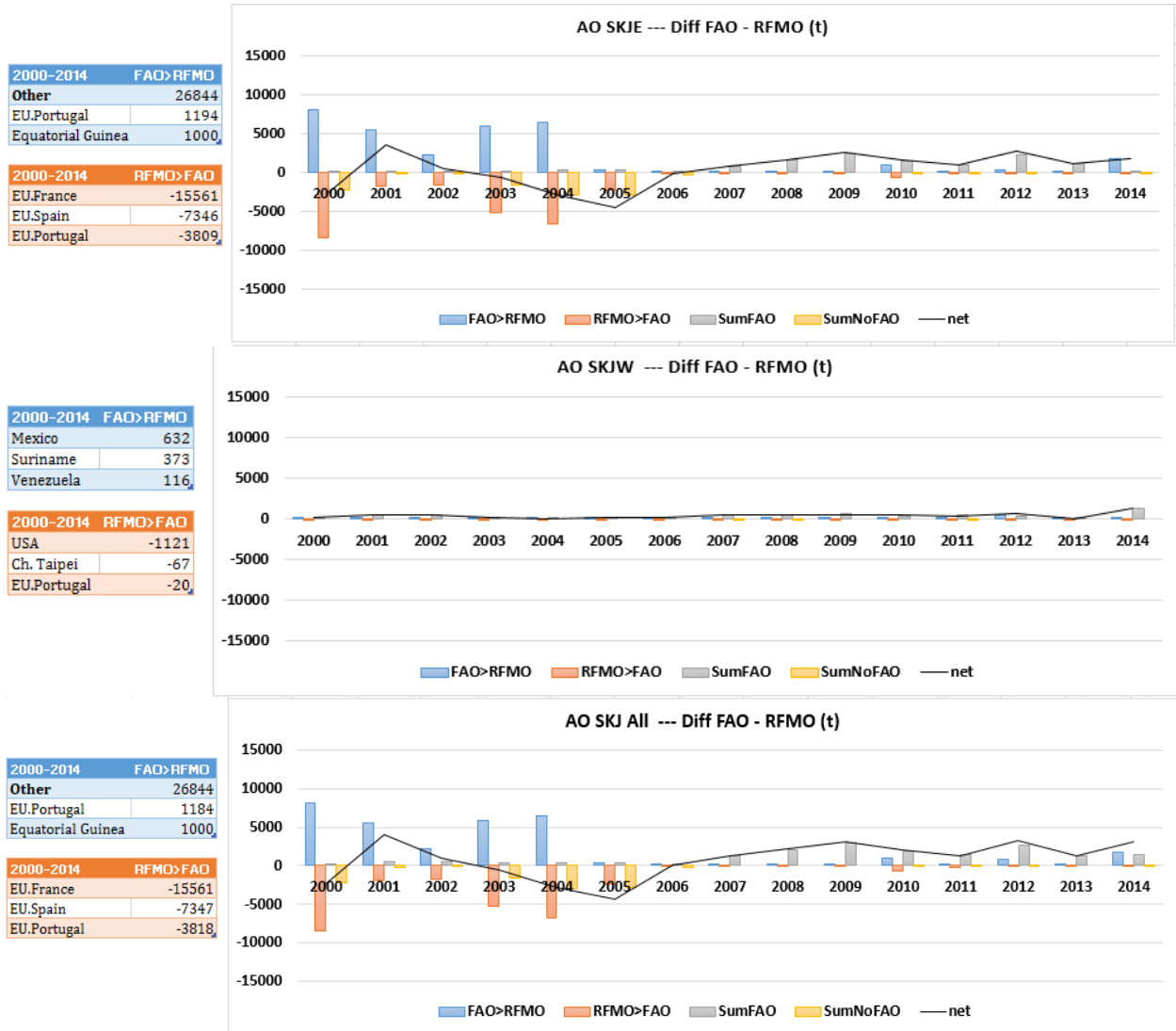


Figure 10. Total annual catch differences in Atlantic Ocean skipjack tuna (East, West and all Atlantic Ocean). Tables on the left show the three Flags with greatest catch differences for each stock (number represents sum of annual differences for the whole 2000-2014 period).

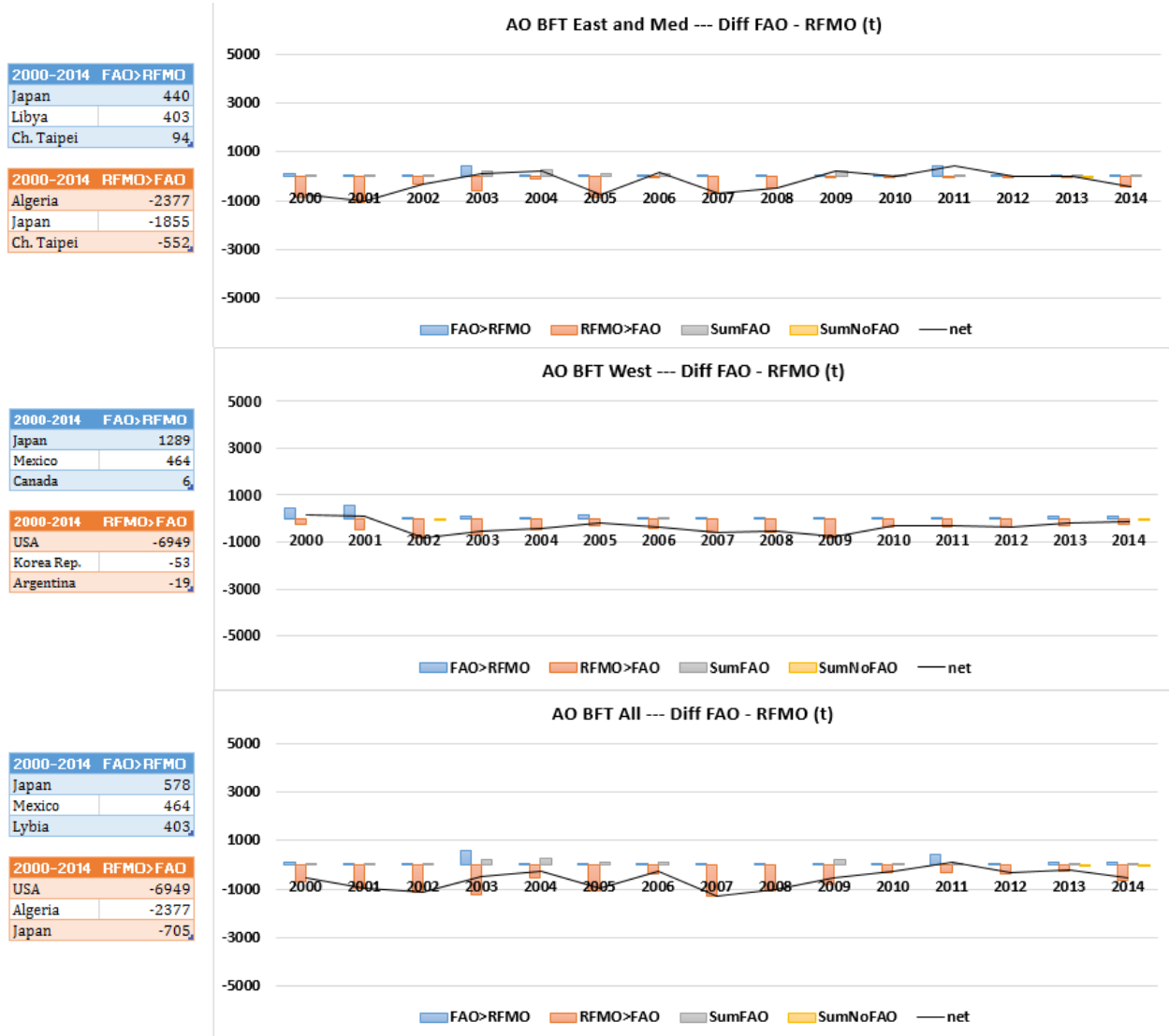


Figure 11. Total annual catch differences in Atlantic Ocean bluefin tuna (East, West and all Atlantic Ocean). Tables on the left show the three Flags with greatest catch differences for each stock (number represents sum of annual differences for the whole 2000-2014 period).

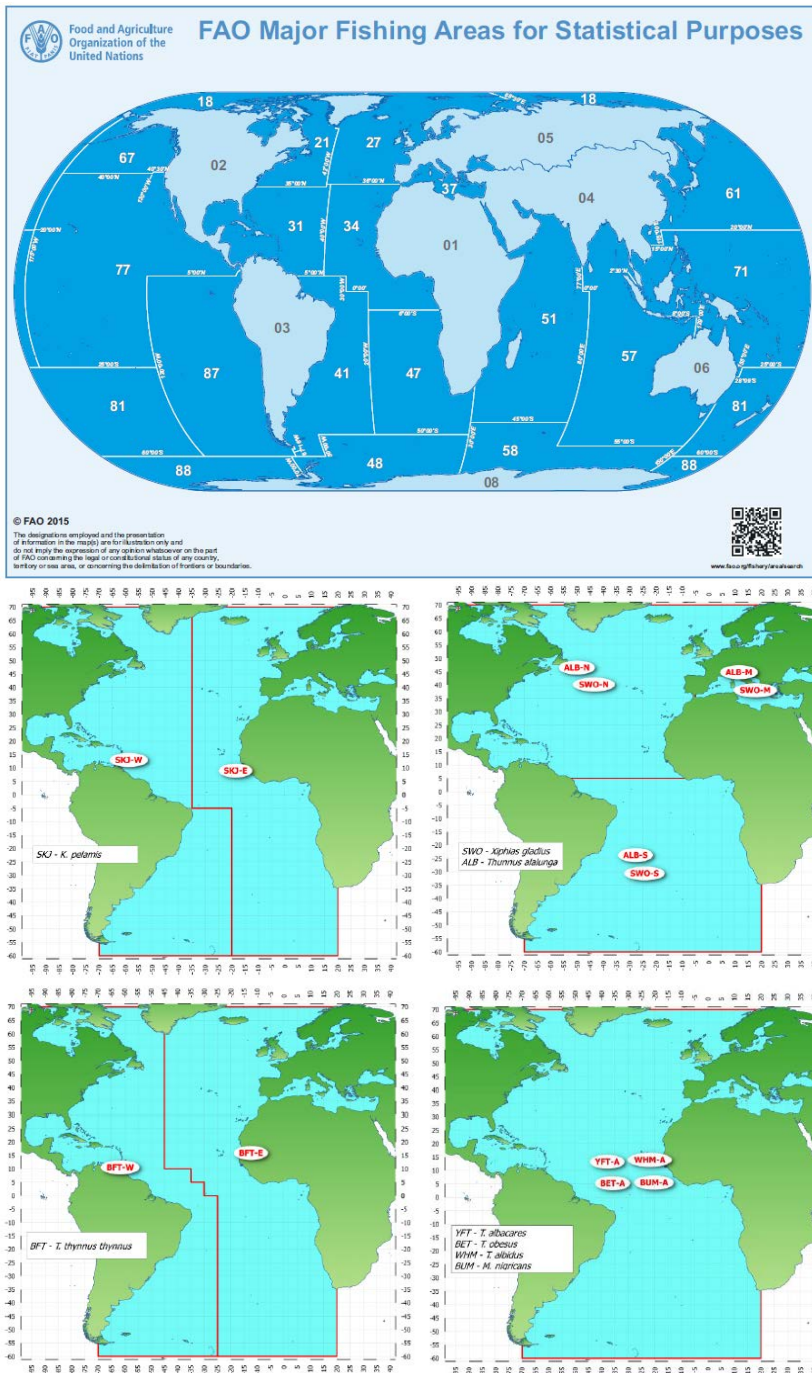


Figure 12. FAO Major Fishing Areas (top) and ICCAT main tuna species stock boundaries (bottom). Note differences in East-West and North-South boundaries.

TABLES

Table 1. Pacific Ocean tropical tuna (BET+YFT+SKJ) 2014 catch comparison

SUM TT-PO (2014)						
Flag	FAO	IATTC (EPO, includes overlap)	WCPFC (WCPO minus overlap)	diff	diff (abs)	diff (%)
Philippines	384942		271841	113101	113101	42%
El Salvador	48703		17480	31223	31223	179%
Peru	25123	1453		23670	23670	1629%
Other	0	19518		-19518	19518	100%
Indonesia	494503		477679	16824	16824	4%
Ecuador	277739	248899	17216	11624	11624	4%
USA	302125	5824	306747	-10446	10446	3%
EU.Spain	49640	9264	31835	8541	8541	21%
Taiwan	271245	5434	261635	4176	4176	2%
China, P.R.	82082	7373	71680	3029	3029	4%
Vanuatu	29202	1255	25763	2184	2184	8%
Korea Rep.	297708	8931	290791	-2014	2014	1%
Japan	314213	16184	299973	-1944	1944	1%
Mexico	131666	129804		1862	1862	1%
Panama	50797	49488		1309	1309	3%
Costa Rica	0	1085		-1085	1085	100%
Colombia	41457	42396		-939	939	2%
Nicaragua	17092	17467		-375	375	2%
Nauru	278		19	259	259	1363%
Venezuela	38062	37976		86	86	0%
Australia	1976		2015	-39	39	2%
EU.FR.FrenchPolynesia	3177	2407	799	-29	29	1%
Cook Islands	902		884	18	18	2%
Belize	238	4	238	-4	4	2%
Fed. States of Micronesia	40434		40435	-1	1	0%
Chile	8	8		0	0	0%
EU.FR.NewCaledonia	799		799	0	0	0%
Fiji	6041		6041	0	0	0%
Kiribati	114149		114149	0	0	0%
Marshall Islands	75887		75887	0	0	0%
NZ.Tokelau	86		86	0	0	0%
NZealand	20660		20660	0	0	0%
Papua New Guinea	236500		236500	0	0	0%
Samoa	294		294	0	0	0%
Solomon Islands	46873		46873	0	0	0%
Tonga	225		225	0	0	0%
Tuvalu	10483		10483	0	0	0%
Vietnam	78379		78379	0	0	0%
American Samoa	914			FAO	FAO	
Guam	192			FAO	FAO	
Guatemala	7905			FAO	FAO	
Malaysia	11323			FAO	FAO	
Niue	5			FAO	FAO	
Singapore	1			FAO	FAO	
USA.NorthernMarianals	1234			FAO	FAO	

Appendix 1. Glossary

ALB. Albacore tuna

BET. Bigeye tuna

BFT. Atlantic Bluefin tuna

CCAMLR. Commission for the Conservation of Antarctic Marine Living Resources

CCM. WCPFC's members, cooperating non-members and participating territories

CCSBT. Commission for the Conservation of Southern Bluefin Tuna

CWP. Coordinating Working Party on Fishery Statistics

FAO. Food and Agriculture Organization of the United Nations

IATTC. Inter-American Tropical Tuna Commission

ICCAT. International Commission for the Conservation of Atlantic Tunas

IOTC. Indian Ocean Tuna Commission

ISC. International Scientific Committee

IWC. International Whaling Commission

OFP. Oceanic Fisheries Programme

PBF. Pacific Bluefin tuna

RFB. Regional Fishery Body

RFMO. Regional Fisheries Management Organization

SBT. Southern Bluefin tuna

SEAFO. South East Atlantic Fisheries Organization

SKJ. Skipjack tuna

SPC. Pacific Community

SPRFMO. South Pacific Regional Fisheries Management Organization

WCPFC. Western and Central Pacific Fisheries Commission

YFT. Yellowfin tuna

Appendix 2. Summary of catch differences by area/species

PO BET

FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14		2000-14		2000-14		2000-14	
Philippines	138403	zOther	-122553	American Samoa	0	Peru	255
Guatemala	33494	Ch. Taipei	-112532	Australia	0	EU.FR.WallisAndFutuna	6
EU.Spain	26497	Korea Rep.	-104670	Belize	0	Senegal	5
El Salvador	24717	USA	-65917	Canada	0	American Samoa	0
Japan	18530	Ecuador	-47771	Chile	0	Australia	0
Colombia	18178	Venezuela	-38744	China, P.R.	0	Belize	0
Vanuatu	17226	China, P.R.	-35034	Colombia	0	Canada	0
Honduras	8470	Panama	-26186	Cook Islands	0	Chile	0
American Samoa	5619	Colombia	-24190	Costa Rica	0	China, P.R.	0
Ecuador	3792	Vanuatu	-13056	Cuba	0	Colombia	0
Malaysia	3587	Nicaragua	-6469	Ecuador	0	Cook Islands	0
China, P.R.	3128	Belize	-4785	El Salvador	0	Costa Rica	0
Panama	2610	EU.Spain	-3938	EU.Cyprus	0	Cuba	0
USA	2480	El Salvador	-2326	EU.FR.FrenchPolynesia	0	Ecuador	0
Ch. Taipei	2264	Japan	-1771	EU.FR.NewCaledonia	0	El Salvador	0
Indonesia	2001	Australia	-1031	EU.FR.WallisAndFutuna	0	EU.Cyprus	0
USA.NorthernMarianals	1501	Philippines	-944	EU.France	0	EU.FR.FrenchPolynesia	0
Mexico	1125	Kiribati	-766	EU.Portugal	0	EU.FR.NewCaledonia	0
Venezuela	1046	Costa Rica	-214	EU.Spain	0	EU.France	0
Australia	708	Mexico	-121	Fed. States of Micronesia	0	EU.Portugal	0
Belize	598	NZealand	-73	Fiji	0	EU.Spain	0
Marshall Islands	417	Marshall Islands	-31	Guatemala	0	Fed. States of Micronesia	0
Solomon Islands	390	Fed. States of Micronesia	-28	Honduras	0	Fiji	0
Papua New Guinea	319	EU.FR.FrenchPolynesia	-20	Indonesia	0	Guatemala	0
EU.FR.FrenchPolynesia	314	American Samoa	0	Japan	0	Honduras	0
Cook Islands	121	Canada	0	Kiribati	0	Indonesia	0
Russian Federation	87	Chile	0	Korea Rep.	0	Japan	0
EU.Portugal	29	Cook Islands	0	Liberia	0	Kiribati	0
Nauru	27	Cuba	0	Malaysia	0	Korea Rep.	0
Nicaragua	23	EU.Cyprus	0	Marshall Islands	0	Liberia	0
Chile	8	EU.FR.NewCaledonia	0	Mexico	0	Malaysia	0
Tuvalu	5	EU.FR.WallisAndFutuna	0	Nauru	0	Marshall Islands	0
NZ.Tokelau	2	EU.France	0	Nicaragua	0	Mexico	0
Niue	1	EU.Portugal	0	Niue	0	Nauru	0
Canada	0	Fiji	0	NZ.Tokelau	0	Nicaragua	0
Costa Rica	0	Guatemala	0	NZealand	0	Niue	0
Cuba	0	Honduras	0	Palau	0	NZ.Tokelau	0
EU.Cyprus	0	Indonesia	0	Panama	0	NZealand	0
EU.FR.NewCaledonia	0	Liberia	0	Papua New Guinea	0	Palau	0
EU.FR.WallisAndFutuna	0	Malaysia	0	Peru	0	Panama	0
EU.France	0	Nauru	0	Philippines	0	Papua New Guinea	0
Fed. States of Micronesia	0	Niue	0	Russian Federation	0	Philippines	0
Fiji	0	NZ.Tokelau	0	Samoa	0	Russian Federation	0
Kiribati	0	Palau	0	Senegal	0	Samoa	0
Korea Rep.	0	Papua New Guinea	0	Solomon Islands	0	Solomon Islands	0
Liberia	0	Peru	0	St. Vincent and Grenadines	0	St. Vincent and Grenadines	0
NZealand	0	Russian Federation	0	Ch. Taipei	0	Ch. Taipei	0
Palau	0	Samoa	0	Tonga	0	Tonga	0
Peru	0	Senegal	0	Tuvalu	0	Tuvalu	0
Samoa	0	Solomon Islands	0	UK.Bermuda	0	UK.Bermuda	0
Senegal	0	St. Vincent and Grenadines	0	USA	0	USA	0
St. Vincent and Grenadines	0	Tonga	0	USA.NorthernMarianals	0	USA.NorthernMarianals	0
Tonga	0	Tuvalu	0	Vanuatu	0	Vanuatu	0
UK.Bermuda	0	UK.Bermuda	0	Venezuela	0	Venezuela	0
Vietnam	0	USA.NorthernMarianals	0	Vietnam	0	Vietnam	0
zNP	0	Vietnam	0	zNP	0	zNP	0
zOther	0	zNP	0	zOther	0	zOther	0

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PO YFT

FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14	2000-14	2000-14	2000-14	2000-14	2000-14	2000-14	2000-14
Philippines	855915	zOther	-247015	American Samoa	0	Senegal	13
Colombia	212970	Ch. Taipei	-237267	Australia	0	EU.FR.WallisAndFutuna	4
Peru	99524	Korea Rep.	-195644	Belize	0	American Samoa	0
Venezuela	83862	USA	-193438	Canada	0	Australia	0
El Salvador	68892	Mexico	-69260	Chile	0	Belize	0
Japan	65822	EU.Spain	-57006	China, P.R.	0	Canada	0
Mexico	62394	China, P.R.	-56721	Colombia	0	Chile	0
Guatemala	45990	Japan	-30131	Cook Islands	0	China, P.R.	0
Ecuador	41645	Ecuador	-19212	Costa Rica	0	Colombia	0
Panama	40235	Venezuela	-18923	Ecuador	0	Cook Islands	0
Nicaragua	32747	Costa Rica	-17528	El Salvador	0	Costa Rica	0
Indonesia	22419	Vanuatu	-12089	EU.Bulgaria	0	Ecuador	0
Vanuatu	16735	Panama	-5004	EU.Cyprus	0	El Salvador	0
zOther	14978	Honduras	-4263	EU.FR.FrenchPolynesia	0	EU.Bulgaria	0
Malaysia	11775	El Salvador	-3978	EU.FR.NewCaledonia	0	EU.Cyprus	0
American Samoa	7271	Belize	-3946	EU.FR.WallisAndFutuna	0	EU.FR.FrenchPolynesia	0
Honduras	5928	Australia	-3652	EU.France	0	EU.FR.NewCaledonia	0
Tuvalu	4579	Solomon Islands	-2028	EU.Portugal	0	EU.France	0
EU.Spain	4143	Papua New Guinea	-1707	EU.Spain	0	EU.Portugal	0
China, P.R.	2627	Marshall Islands	-687	Fed. States of Micronesia	0	EU.Spain	0
Australia	1980	NZealand	-566	Fiji	0	Fed. States of Micronesia	0
Nauru	1735	Fed. States of Micronesia	-553	Guam	0	Fiji	0
Kiribati	1610	EU.FR.FrenchPolynesia	-104	Guatemala	0	Guam	0
Belize	1467	Nicaragua	-7	Honduras	0	Guatemala	0
EU.FR.FrenchPolynesia	840	American Samoa	0	Indonesia	0	Honduras	0
USA.NorthernMarianals	400	Canada	0	Japan	0	Indonesia	0
Cook Islands	347	Chile	0	Kiribati	0	Japan	0
Guam	343	Colombia	0	Korea Rep.	0	Kiribati	0
Korea Rep.	227	Cook Islands	0	Liberia	0	Korea Rep.	0
Marshall Islands	220	EU.Bulgaria	0	Malaysia	0	Liberia	0
EU.Portugal	11	EU.Cyprus	0	Marshall Islands	0	Malaysia	0
Niue	3	EU.FR.NewCaledonia	0	Mexico	0	Marshall Islands	0
Canada	0	EU.FR.WallisAndFutuna	0	Nauru	0	Mexico	0
Chile	0	EU.France	0	Nicaragua	0	Nauru	0
Costa Rica	0	EU.Portugal	0	Niue	0	Nicaragua	0
EU.Bulgaria	0	Fiji	0	NZ.Tokelau	0	Niue	0
EU.Cyprus	0	Guam	0	NZealand	0	NZ.Tokelau	0
EU.FR.NewCaledonia	0	Guatemala	0	Palau	0	NZealand	0
EU.FR.WallisAndFutuna	0	Indonesia	0	Panama	0	Palau	0
EU.France	0	Kiribati	0	Papua New Guinea	0	Panama	0
Fed. States of Micronesia	0	Liberia	0	Peru	0	Papua New Guinea	0
Fiji	0	Malaysia	0	Philippines	0	Peru	0
Liberia	0	Nauru	0	Samoa	0	Philippines	0
NZ.Tokelau	0	Niue	0	Senegal	0	Samoa	0
NZealand	0	NZ.Tokelau	0	Solomon Islands	0	Solomon Islands	0
Palau	0	Palau	0	St. Vincent and Grenadines	0	St. Vincent and Grenadines	0
Papua New Guinea	0	Peru	0	Ch. Taipei	0	Ch. Taipei	0
Samoa	0	Philippines	0	Tonga	0	Tonga	0
Senegal	0	Samoa	0	Tuvalu	0	Tuvalu	0
Solomon Islands	0	Senegal	0	UK.Bermuda	0	UK.Bermuda	0
St. Vincent and Grenadines	0	St. Vincent and Grenadines	0	USA	0	USA	0
Ch. Taipei	0	Tonga	0	USA.NorthernMarianals	0	USA.NorthernMarianals	0
Tonga	0	Tuvalu	0	Vanuatu	0	Vanuatu	0
UK.Bermuda	0	UK.Bermuda	0	Venezuela	0	Venezuela	0
USA	0	USA.NorthernMarianals	0	Vietnam	0	Vietnam	0
Vietnam	0	Vietnam	0	zNP	0	zNP	0
zNP	0	zNP	0	zOther	0	zOther	0

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PO SKJ

FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14	2000-14	2000-14	2000-14	2000-14	2000-14	2000-14	
Philippines	564091	zOther	-318171	American Samoa	0	Senegal	9
Ch. Taipei	438278	Japan	-210425	Australia	0	American Samoa	0
Korea Rep.	267811	USA	-189385	Belize	0	Australia	0
Ecuador	130149	Venezuela	-28320	Canada	0	Belize	0
El Salvador	129026	Panama	-26196	Chile	0	Canada	0
USA	103244	Colombia	-23696	China, P.R.	0	Chile	0
China, P.R.	102732	Mexico	-22957	Colombia	0	China, P.R.	0
Colombia	96329	Ecuador	-9199	Cook Islands	0	Colombia	0
EU.Spain	81376	Nicaragua	-8640	Costa Rica	0	Cook Islands	0
Guatemala	71135	Vanuatu	-4656	Cuba	0	Costa Rica	0
Mexico	57220	Peru	-3886	Ecuador	0	Cuba	0
Japan	47717	Kiribati	-844	El Salvador	0	Ecuador	0
Vanuatu	39672	Australia	-542	EU.Cyprus	0	El Salvador	0
Malaysia	35595	EU.FR.FrenchPolynesia	-491	EU.FR.FrenchPolynesia	0	EU.Cyprus	0
Peru	31272	Philippines	-388	EU.FR.NewCaledonia	0	EU.FR.FrenchPolynesia	0
Honduras	19672	Belize	-349	EU.FR.WallisAndFutuna	0	EU.FR.NewCaledonia	0
Panama	14514	El Salvador	-283	EU.France	0	EU.FR.WallisAndFutuna	0
Tuvalu	11154	Marshall Islands	-219	EU.Portugal	0	EU.France	0
Venezuela	8043	Palau	-100	EU.Spain	0	EU.Portugal	0
Indonesia	6046	Tuvalu	-57	Fed. States of Micronesia	0	EU.Spain	0
zOther	5348	Costa Rica	-24	Fiji	0	Fed. States of Micronesia	0
Belize	5282	Chile	-6	Guam	0	Fiji	0
American Samoa	2368	American Samoa	0	Guatemala	0	Guam	0
USA.NorthernMarianals	2009	Canada	0	Honduras	0	Guatemala	0
Guam	1854	China, P.R.	0	Indonesia	0	Honduras	0
Solomon Islands	1638	Cook Islands	0	Japan	0	Indonesia	0
Australia	1423	Cuba	0	Kiribati	0	Japan	0
Papua New Guinea	1388	EU.Cyprus	0	Korea Rep.	0	Kiribati	0
EU.FR.FrenchPolynesia	1232	EU.FR.NewCaledonia	0	Liberia	0	Korea Rep.	0
Nicaragua	923	EU.FR.WallisAndFutuna	0	Malaysia	0	Liberia	0
NZealand	639	EU.France	0	Marshall Islands	0	Malaysia	0
Fed. States of Micronesia	580	EU.Portugal	0	Mexico	0	Marshall Islands	0
Marshall Islands	300	EU.Spain	0	Nauru	0	Mexico	0
Nauru	278	Fed. States of Micronesia	0	Nicaragua	0	Nauru	0
Chile	124	Fiji	0	Niue	0	Nicaragua	0
Cook Islands	103	Guam	0	NZ.Tokelau	0	Niue	0
Singapore	40	Guatemala	0	NZealand	0	NZ.Tokelau	0
Russian Federation	34	Honduras	0	Palau	0	NZealand	0
Niue	10	Indonesia	0	Panama	0	Palau	0
Canada	0	Korea Rep.	0	Papua New Guinea	0	Panama	0
Costa Rica	0	Liberia	0	Peru	0	Papua New Guinea	0
Cuba	0	Malaysia	0	Philippines	0	Peru	0
EU.Cyprus	0	Nauru	0	Russian Federation	0	Philippines	0
EU.FR.NewCaledonia	0	Niue	0	Samoa	0	Russian Federation	0
EU.FR.WallisAndFutuna	0	NZ.Tokelau	0	Senegal	0	Samoa	0
EU.France	0	NZealand	0	Singapore	0	Singapore	0
EU.Portugal	0	Papua New Guinea	0	Solomon Islands	0	Solomon Islands	0
Fiji	0	Russian Federation	0	St. Vincent and Grenadines	0	St. Vincent and Grenadines	0
Kiribati	0	Samoa	0	Ch. Taipei	0	Ch. Taipei	0
Liberia	0	Senegal	0	Tonga	0	Tonga	0
NZ.Tokelau	0	Singapore	0	Tuvalu	0	Tuvalu	0
Palau	0	Solomon Islands	0	UK.Bermuda	0	UK.Bermuda	0
Samoa	0	St. Vincent and Grenadines	0	USA	0	USA	0
Senegal	0	Ch. Taipei	0	USA.NorthernMarianals	0	USA.NorthernMarianals	0
St. Vincent and Grenadines	0	Tonga	0	Vanuatu	0	Vanuatu	0
Tonga	0	UK.Bermuda	0	Venezuela	0	Venezuela	0
UK.Bermuda	0	USA.NorthernMarianals	0	Vietnam	0	Vietnam	0
Vietnam	0	Vietnam	0	zNP	0	zNP	0
zNP	0	zNP	0	zOther	0	zOther	0

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FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
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Ch. Taipei	18503	Japan	-63342	American Samoa	49123	zNP	24258
China, P.R.	9010	USA	-63152	Belize	9255	Philippines	120
Japan	3007	Vanuatu	-25041	EU.Spain	283	EU.FR.WallisAndFutuna	3
Australia	2008	Canada	-24314	Chile	90	American Samoa	0
Cook Islands	937	Korea Rep.	-9200	EU.Portugal	73	Australia	0
Korea Rep.	546	Ch. Taipei	-8067	Mexico	68	Belize	0
Mexico	185	China, P.R.	-5496	Malaysia	47	Canada	0
Vanuatu	46	Australia	-2059	USA.NorthernMarianals	46	Chile	0
NZealand	21	Mexico	-871	Nauru	23	China, P.R.	0
EU.Spain	2	Cook Islands	-111	Ecuador	3	Cook Islands	0
American Samoa	0	EU.Spain	-23	Niue	2	Cuba	0
Belize	0	American Samoa	0	zOther	2	Ecuador	0
Canada	0	Belize	0	Australia	0	EU.FR.FrenchPolynesia	0
Chile	0	Chile	0	Canada	0	EU.FR.NewCaledonia	0
Cuba	0	Cuba	0	China, P.R.	0	EU.Portugal	0
Ecuador	0	Ecuador	0	Cook Islands	0	EU.Spain	0
EU.FR.FrenchPolynesia	0	EU.FR.FrenchPolynesia	0	Cuba	0	Fed. States of Micronesia	0
EU.FR.NewCaledonia	0	EU.FR.NewCaledonia	0	EU.FR.FrenchPolynesia	0	Fiji	0
EU.FR.WallisAndFutuna	0	EU.FR.WallisAndFutuna	0	EU.FR.NewCaledonia	0	Japan	0
EU.Portugal	0	EU.Portugal	0	EU.FR.WallisAndFutuna	0	Kiribati	0
Fed. States of Micronesia	0	Fed. States of Micronesia	0	Fed. States of Micronesia	0	Korea Rep.	0
Fiji	0	Fiji	0	Fiji	0	Malaysia	0
Kiribati	0	Kiribati	0	Japan	0	Marshall Islands	0
Malaysia	0	Malaysia	0	Kiribati	0	Mexico	0
Marshall Islands	0	Marshall Islands	0	Korea Rep.	0	Nauru	0
Nauru	0	Nauru	0	Marshall Islands	0	Niue	0
Niue	0	Niue	0	NZealand	0	NZealand	0
Palau	0	NZealand	0	Palau	0	Palau	0
Papua New Guinea	0	Palau	0	Papua New Guinea	0	Papua New Guinea	0
Philippines	0	Papua New Guinea	0	Philippines	0	Samoa	0
Samoa	0	Philippines	0	Samoa	0	Solomon Islands	0
Solomon Islands	0	Samoa	0	Solomon Islands	0	Ch. Taipei	0
Tonga	0	Solomon Islands	0	Ch. Taipei	0	Tonga	0
Tuvalu	0	Tonga	0	Tonga	0	Tuvalu	0
USA	0	Tuvalu	0	Tuvalu	0	USA	0
USA.NorthernMarianals	0	USA.NorthernMarianals	0	USA	0	USA.NorthernMarianals	0
Vietnam	0	Vietnam	0	Vanuatu	0	Vanuatu	0
zNP	0	zNP	0	Vietnam	0	Vietnam	0
zOther	0	zOther	0	zNP	0	zOther	0

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FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14		2000-14		2000-14		2000-14	
Japan	12839	Korea Rep.	-19623	NZealand	418	Vanuatu	1
Ch. Taipei	716	Japan	-5330	EU.Portugal	13	Samoa	0
Mexico	231	Mexico	-4553	Cook Islands	8	Tonga	0
Cook Islands	0	USA	-4472	Solomon Islands	6	Cook Islands	0
EU.Portugal	0	Ch. Taipei	-157	Palau	5	EU.Portugal	0
Korea Rep.	0	Solomon Islands	-26	Japan	0	Japan	0
NZealand	0	Cook Islands	-2	Korea Rep.	0	Korea Rep.	0
Palau	0	EU.Portugal	0	Mexico	0	Mexico	0
Samoa	0	NZealand	0	Samoa	0	NZealand	0
Solomon Islands	0	Palau	0	Ch. Taipei	0	Palau	0
Tonga	0	Samoa	0	Tonga	0	Solomon Islands	0
USA	0	Tonga	0	USA	0	Ch. Taipei	0
Vanuatu	0	Vanuatu	0	Vanuatu	0	USA	0
zOther	0	zOther	0	zOther	0	zOther	0

Southern BFT

FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
Australia	3786	Australia	-1775	zMixed	321	Seychelles	720
Japan	1746	Ch. Taipei	-1691	zResearchAndOthers	82	Belize	288
Korea Rep.	1587	Japan	-1604	EU.General	81	EU.UK	196
Indonesia	333	Indonesia	-342	Australia	0	zOther	159
Philippines	210	South Africa	-20	Belize	0	Thailand	110
South Africa	144	NZealand	-3	Brazil	0	EU.Portugal	98
Ch. Taipei	96	Philippines	0	China, P.R.	0	EU.Spain	51
NZealand	10	Belize	0	EU.Italy	0	China, P.R.	14
Belize	0	Brazil	0	EU.Portugal	0	Namibia	14
Brazil	0	China, P.R.	0	EU.Spain	0	Uruguay	2
China, P.R.	0	EU.General	0	EU.UK	0	Brazil	1
EU.General	0	EU.Italy	0	Indonesia	0	Madagascar	1
EU.Italy	0	EU.Portugal	0	Japan	0	Vanuatu	1
EU.Portugal	0	EU.Spain	0	Korea Rep.	0	Australia	0
EU.Spain	0	EU.UK	0	Madagascar	0	EU.General	0
EU.UK	0	Korea Rep.	0	Namibia	0	EU.Italy	0
Madagascar	0	Madagascar	0	NZealand	0	Indonesia	0
Namibia	0	Namibia	0	Philippines	0	Japan	0
Seychelles	0	Seychelles	0	Seychelles	0	Korea Rep.	0
Thailand	0	Thailand	0	South Africa	0	NZealand	0
Uruguay	0	Uruguay	0	Ch. Taipei	0	Philippines	0
Vanuatu	0	Vanuatu	0	Thailand	0	South Africa	0
zMixed	0	zMixed	0	Uruguay	0	Ch. Taipei	0
zOther	0	zOther	0	Vanuatu	0	zMixed	0
zResearchAndOthers	0	zResearchAndOthers	0	zOther	0	zResearchAndOthers	0

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FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
Ch. Taipei	36661	EU.FR.Mayot	-12396	EU.Italy	3173	zMixed.Fres	36393
EU.France	15155	Ch. Taipei	-4068	Mozambique	2125	zMixed	12872
India	2646	Tanzania	-3431	India	1323	Oman	229
zOther	2503	Japan	-3256	EU.FR.Mayot	30	Pakistan	49
Mozambique	2089	Maldives	-1616	Uruguay	22	Australia	0
China, P.R.	1960	Korea Rep.	-1090	Vanuatu	2	Belize	0
Japan	809	zOther	-217	Australia	0	China, P.R.	0
Thailand	674	EU.Portugal	-104	Belize	0	Comoros	0
Comoros	112	Sri Lanka	-81	China, P.R.	0	EU.FR.Mayot	0
EU.Portugal	28	South Africa	-23	Comoros	0	EU.FR.Reuni	0
Iran	27	Mauritius	-10	EU.FR.Reuni	0	EU.France	0
South Africa	21	India	-5	EU.France	0	EU.Italy	0
Australia	20	Comoros	-4	EU.Portugal	0	EU.Portugal	0
Seychelles	6	Belize	-3	EU.Spain	0	EU.Spain	0
Indonesia	4	Indonesia	-3	EU.UK	0	EU.UK	0
EU.Spain	4	China, P.R.	-3	Guinea	0	Guinea	0
Madagascar	3	Guinea	-2	Indonesia	0	India	0
Belize	3	EU.Spain	-2	Iran	0	Indonesia	0
Philippines	3	Madagascar	-2	Japan	0	Iran	0
Sri Lanka	2	Iran	-2	Kenya	0	Japan	0
Mauritius	2	Philippines	-2	Korea Rep.	0	Kenya	0
Guinea	2	Seychelles	-1	Madagascar	0	Korea Rep.	0
Maldives	2	EU.FR.Reuni	-1	Malaysia	0	Madagascar	0
Malaysia	2	Australia	-1	Maldives	0	Malaysia	0
EU.FR.Reunion	1	Malaysia	-1	Mauritius	0	Maldives	0
Kenya	1	Thailand	-1	Oman	0	Mauritius	0
EU.FR.Mayotte	0	Vanuatu	-1	Pakistan	0	Mozambique	0
Korea Rep.	0	Kenya	-1	Philippines	0	Philippines	0
EU.Italy	0	EU.UK	-1	Senegal	0	Senegal	0
EU.UK	0	Mozambique	0	Seychelles	0	Seychelles	0
Oman	0	Senegal	0	South Africa	0	South Africa	0
Pakistan	0	EU.France	0	Sri Lanka	0	Sri Lanka	0
Senegal	0	EU.Italy	0	Ch. Taipei	0	Ch. Taipei	0
Tanzania	0	Oman	0	Tanzania	0	Tanzania	0
Uruguay	0	Pakistan	0	Thailand	0	Thailand	0
Vanuatu	0	Uruguay	0	zMixed	0	Uruguay	0
zMixed	0	zMixed	0	zMixed.Fres	0	Vanuatu	0
zMixed.Fresh	0	zMixed.Fres	0	zMixed.froze	0	zMixed.froze	0
zMixed.frozen	0	zMixed.froze	0	zOther	0	zOther	0

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FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
EU.France	88928	EU.FR.Mayotte	-74280	EU.Italy	32698	zMixed.Fresh	79858
EU.Spain	48046	Oman	-25137	EU.FR.Mayotte	300	zMixed	59118
Pakistan	22614	Ch. Taipei	-14420	Uruguay	13	Australia	0
Ch. Taipei	13535	Japan	-4539	Mozambique	3	Belize	0
Iran	2277	Korea Rep.	-1686	Australia	0	China, P.R.	0
Japan	2260	Tanzania	-1527	Belize	0	Comoros	0
Tanzania	1237	Mauritius	-1280	China, P.R.	0	East Timor	0
India	1195	Sri Lanka	-764	Comoros	0	EU.FR.Mayotte	0
Oman	577	Maldives	-341	East Timor	0	EU.FR.Reunion	0
zOther	258	Pakistan	-172	EU.FR.Reunion	0	EU.France	0
Comoros	86	Thailand	-65	EU.France	0	EU.Italy	0
Thailand	58	zOther	-61	EU.Portugal	0	EU.Portugal	0
South Africa	33	EU.Portugal	-60	EU.Spain	0	EU.Spain	0
Australia	26	South Africa	-23	EU.UK	0	EU.UK	0
China, P.R.	6	Madagascar	-19	Guinea	0	Guinea	0
Indonesia	5	India	-8	India	0	India	0
Kenya	5	Seychelles	-6	Indonesia	0	Indonesia	0
Belize	3	China, P.R.	-5	Iran	0	Iran	0
Sri Lanka	3	Australia	-4	Japan	0	Japan	0
Philippines	2	Indonesia	-4	Jordan	0	Jordan	0
Madagascar	2	Comoros	-3	Kenya	0	Kenya	0
Seychelles	2	Philippines	-3	Korea Rep.	0	Korea Rep.	0
Malaysia	2	UK.Other	-3	Madagascar	0	Madagascar	0
Maldives	2	Mozambique	-2	Malaysia	0	Malaysia	0
UK.Other	2	Belize	-2	Maldives	0	Maldives	0
Mauritius	1	EU.UK	-2	Mauritius	0	Mauritius	0
EU.Portugal	1	Yemen	-2	Oman	0	Mozambique	0
EU.FR.Reunion	1	Kenya	-2	Pakistan	0	Oman	0
Guinea	1	EU.FR.Reunion	-2	Philippines	0	Pakistan	0
Mozambique	1	Malaysia	-1	Senegal	0	Philippines	0
Yemen	1	EU.Spain	-1	Seychelles	0	Senegal	0
Jordan	1	Guinea	-1	South Africa	0	Seychelles	0
Korea Rep.	0	Jordan	-1	Sri Lanka	0	South Africa	0
Vanuatu	0	Senegal	0	Ch. Taipei	0	Sri Lanka	0
Senegal	0	Iran	0	Tanzania	0	Ch. Taipei	0
EU.UK	0	EU.France	0	Thailand	0	Tanzania	0
EU.FR.Mayotte	0	East Timor	0	UK.Other	0	Thailand	0
East Timor	0	EU.Italy	0	Vanuatu	0	UK.Other	0
EU.Italy	0	Uruguay	0	Yemen	0	Uruguay	0
Uruguay	0	Vanuatu	0	zMixed	0	Vanuatu	0
zMixed	0	zMixed	0	zMixed.Fresh	0	Yemen	0
zMixed.Fresh	0	zMixed.Fresh	0	zMixed.frozen	0	zMixed.frozen	0
zMixed.frozen	0	zMixed.frozen	0	zOther	0	zOther	0

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FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
EU.France	63522	EU.FR.Mayotte	-55637	EU.Italy	30780	zMixed	102375
Pakistan	12602	Pakistan	-3249	EU.FR.Mayotte	500	zMixed.Fresh	177
India	2156	Iran	-1601	Oman	23	EU.UK	0
Japan	633	Sri Lanka	-1108	Mozambique	21	Philippines	0
Ch. Taipei	555	Oman	-874	EU.Portugal	20	Australia	0
Korea Rep.	172	Comoros	-646	South Africa	1	Belize	0
Mauritius	23	Ch. Taipei	-253	Australia	0	Comoros	0
Tanzania	13	Japan	-179	Belize	0	EU.FR.Mayotte	0
Oman	6	Australia	-46	Comoros	0	EU.FR.Reunion	0
EU.Spain	5	Mauritius	-12	EU.FR.Reunion	0	EU.France	0
Comoros	3	Jordan	-9	EU.France	0	EU.Italy	0
Maldives	3	India	-9	EU.Spain	0	EU.Portugal	0
zOther	3	Indonesia	-5	EU.UK	0	EU.Spain	0
Iran	3	Tanzania	-4	Guinea	0	Guinea	0
Sri Lanka	2	Madagascar	-4	India	0	India	0
Madagascar	2	Mozambique	-3	Indonesia	0	Indonesia	0
South Africa	2	Seychelles	-3	Iran	0	Iran	0
Indonesia	1	EU.Spain	-3	Japan	0	Japan	0
Kenya	1	zOther	-2	Jordan	0	Jordan	0
Yemen	1	Belize	-2	Kenya	0	Kenya	0
Australia	1	Maldives	-2	Korea Rep.	0	Korea Rep.	0
UK.Other	1	UK.Other	-2	Madagascar	0	Madagascar	0
Mozambique	0	Kenya	-2	Malaysia	0	Malaysia	0
EU.FR.Reunion	0	Malaysia	-2	Maldives	0	Maldives	0
EU.Portugal	0	Guinea	-1	Mauritius	0	Mauritius	0
Guinea	0	South Africa	-1	Pakistan	0	Mozambique	0
Senegal	0	EU.Portugal	-1	Philippines	0	Oman	0
Seychelles	0	Yemen	-1	Romania	0	Pakistan	0
Thailand	0	EU.France	0	Senegal	0	Romania	0
EU.FR.Mayotte	0	EU.FR.Reunion	0	Seychelles	0	Senegal	0
Belize	0	Korea Rep.	0	Sri Lanka	0	Seychelles	0
EU.Italy	0	Thailand	0	Ch. Taipei	0	South Africa	0
EU.UK	0	EU.Italy	0	Tanzania	0	Sri Lanka	0
Jordan	0	EU.UK	0	Thailand	0	Ch. Taipei	0
Malaysia	0	Philippines	0	UK.Other	0	Tanzania	0
Philippines	0	Romania	0	Yemen	0	Thailand	0
Romania	0	Senegal	0	zMixed	0	UK.Other	0
zMixed	0	zMixed	0	zMixed.Fresh	0	Yemen	0
zMixed.Fresh	0	zMixed.Fresh	0	zMixed.frozen	0	zMixed.frozen	0
zMixed.frozen	0	zMixed.frozen	0	zOther	0	zOther	0

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FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
Ch. Taipei	4332	Ch. Taipei	-49070	India	360	zMixed.Fresh	10823
EU.France	1067	Japan	-4042	EU.Italy	300	Oman	220
Japan	212	China, P.R.	-1940	Vanuatu	73	zMixed	81
India	180	EU.FR.Mayotte	-957	Mozambique	16	Australia	0
Tanzania	114	Thailand	-404	EU.FR.Mayotte	8	Belize	0
South Africa	99	Mauritius	-345	Uruguay	4	China, P.R.	0
China, P.R.	26	Korea Rep.	-324	Australia	0	Comoros	0
Madagascar	21	zOther	-273	Belize	0	EU.FR.Mayotte	0
Australia	6	Tanzania	-201	China, P.R.	0	EU.FR.Reunion	0
Seychelles	5	Mozambique	-59	Comoros	0	EU.France	0
Belize	5	Australia	-6	EU.FR.Reunion	0	EU.Italy	0
zOther	5	EU.Portugal	-5	EU.France	0	EU.Portugal	0
Thailand	4	India	-3	EU.Portugal	0	EU.Spain	0
Comoros	2	EU.Spain	-3	EU.Spain	0	EU.UK	0
Philippines	2	Comoros	-3	EU.UK	0	Guinea	0
EU.FR.Reunion	2	South Africa	-3	Guinea	0	India	0
EU.Spain	2	Seychelles	-2	Indonesia	0	Indonesia	0
Indonesia	2	Belize	-2	Iran	0	Iran	0
Mauritius	1	Indonesia	-2	Japan	0	Japan	0
Malaysia	1	Madagascar	-2	Kenya	0	Kenya	0
EU.UK	1	Philippines	-1	Korea Rep.	0	Korea Rep.	0
Vanuatu	1	EU.UK	-1	Madagascar	0	Madagascar	0
Guinea	1	Malaysia	-1	Malaysia	0	Malaysia	0
Kenya	1	Guinea	-1	Maldives	0	Maldives	0
Korea Rep.	0	EU.France	-1	Mauritius	0	Mauritius	0
EU.FR.Mayotte	0	EU.FR.Reunion	-1	Oman	0	Mozambique	0
Senegal	0	Maldives	0	Philippines	0	Philippines	0
Mozambique	0	Kenya	0	Senegal	0	Senegal	0
Sri Lanka	0	EU.Italy	0	Seychelles	0	Seychelles	0
EU.Portugal	0	Iran	0	South Africa	0	South Africa	0
EU.Italy	0	Oman	0	Sri Lanka	0	Sri Lanka	0
Iran	0	Senegal	0	Ch. Taipei	0	Ch. Taipei	0
Maldives	0	Sri Lanka	0	Tanzania	0	Tanzania	0
Oman	0	Uruguay	0	Thailand	0	Thailand	0
Uruguay	0	Vanuatu	0	zMixed	0	Uruguay	0
zMixed	0	zMixed	0	zMixed.Fresh	0	Vanuatu	0
zMixed.Fresh	0	zMixed.Fresh	0	zMixed.frozen	0	zMixed.frozen	0
zMixed.frozen	0	zMixed.frozen	0	zOther	0	zOther	0

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FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14		2000-14		2000-14	2000-14		
Ch. Taipei	12892	USA	-4361	Liberia	1534	zMixed	894
Japan	3645	Ch. Taipei	-4255	Togo	843	zOther2	336
EU.Portugal	3436	EU.France	-1852	Benin	308	Nigeria	4
zOther	3432	Japan	-1756	Gabon	180	Algeria	0
South Africa	1048	EU.Portugal	-1207	EU.UK	121	Angola	0
Liberia	468	EU.Spain	-948	Sao Tome and Principe	89	Argentina	0
Korea Rep.	455	Morocco	-871	Equatorial Guinea	82	Barbados	0
Sao Tome and Principe	218	Korea Rep.	-744	Grenada	37	Belize	0
EU.UK	23	Cuba	-32	UK.Other	29	Benin	0
Barbados	14	UK.Other	-8	Cuba	5	Brazil	0
Namibia	11	South Africa	-5	Iceland	5	Canada	0
Canada	8	Brazil	-4	Saint Lucia	3	Cape Verde	0
Venezuela	7	Vanuatu	-3	Algeria	0	China, P.R.	0
Brazil	7	China, P.R.	-3	Angola	0	Congo	0
Philippines	6	Curaçao	-3	Argentina	0	Côte D'Ivoire	0
China, P.R.	5	Panama	-2	Barbados	0	Cuba	0
Vanuatu	3	Namibia	-2	Belize	0	Curaçao	0
EU.Spain	3	Mexico	-2	Brazil	0	Dominica	0
Belize	3	Trinidad and Tobago	-2	Canada	0	Equatorial Guinea	0
Trinidad and Tobago	3	St. Vincent and Grenadines	-2	Cape Verde	0	EU.FR.St Pierre et Miquelon	0
St. Vincent and Grenadines	2	Belize	-2	China, P.R.	0	EU.France	0
EU.France	2	Philippines	-2	Congo	0	EU.Ireland	0
Guinea	2	Canada	-2	Côte D'Ivoire	0	EU.Poland	0
Cape Verde	2	UK.Bermuda	-2	Curaçao	0	EU.Portugal	0
Curaçao	1	Guinea	-1	Dominica	0	EU.Spain	0
Guatemala	1	Saint Lucia	-1	EU.FR.St Pierre et Miquelon	0	EU.UK	0
Panama	1	EU.FR.St Pierre et Miquelon	-1	EU.France	0	Faroe Islands	0
Côte D'Ivoire	1	Senegal	-1	EU.Ireland	0	Gabon	0
Mexico	1	Ghana	-1	EU.Poland	0	Ghana	0
UK.Bermuda	1	Venezuela	-1	EU.Portugal	0	Grenada	0
EU.FR.St Pierre et Miquelon	1	Cape Verde	-1	EU.Spain	0	Guatemala	0
Uruguay	1	Grenada	-1	Faroe Islands	0	Guinea	0
Saint Lucia	1	Barbados	-1	Ghana	0	Honduras	0
EU.Ireland	1	zOther	-1	Guatemala	0	Iceland	0
Senegal	1	Angola	-1	Guinea	0	Japan	0
Ghana	1	Sao Tome and Principe	-1	Honduras	0	Korea Rep.	0
Grenada	0	Uruguay	-1	Japan	0	Liberia	0
Russian Federation	0	Guatemala	-1	Korea Rep.	0	Libya	0
Equatorial Guinea	0	Seychelles	0	Libya	0	Mexico	0
UK.Other	0	Sierra Leone	0	Mexico	0	Morocco	0
Angola	0	Equatorial Guinea	0	Morocco	0	Namibia	0
Libya	0	Côte D'Ivoire	0	Norway	0	Norway	0
Sierra Leone	0	EU.Ireland	0	Nigeria	0	Panama	0
Algeria	0	EU.UK	0	Norway	0	Philippines	0
Argentina	0	Dominica	0	Panama	0	Russian Federation	0
Benin	0	Algeria	0	Philippines	0	Saint Lucia	0
Congo	0	Argentina	0	Russian Federation	0	Sao Tome and Principe	0
Cuba	0	Benin	0	Senegal	0	Senegal	0
Dominica	0	Congo	0	Seychelles	0	Seychelles	0
EU.Poland	0	EU.Poland	0	Sierra Leone	0	Sierra Leone	0
Faroe Islands	0	Faroe Islands	0	South Africa	0	South Africa	0
Gabon	0	Gabon	0	St. Vincent and Grenadines	0	St. Vincent and Grenadines	0
Honduras	0	Honduras	0	Ch. Taipei	0	Ch. Taipei	0
Iceland	0	Iceland	0	Trinidad and Tobago	0	Togo	0
Morocco	0	Liberia	0	UK.Bermuda	0	Trinidad and Tobago	0
Nigeria	0	Libya	0	Un. Sov. Soc. Rep.	0	UK.Bermuda	0
Norway	0	Nigeria	0	Uruguay	0	UK.Other	0
Seychelles	0	Norway	0	USA	0	Un. Sov. Soc. Rep.	0
Togo	0	Russian Federation	0	USA.PuertoRico	0	Uruguay	0
Un. Sov. Soc. Rep.	0	Togo	0	Vanuatu	0	USA	0
USA	0	Un. Sov. Soc. Rep.	0	Venezuela	0	USA.PuertoRico	0
USA.PuertoRico	0	USA.PuertoRico	0	zMixed	0	Vanuatu	0
zMixed	0	zMixed	0	zOther	0	Venezuela	0
zOther2	0	zOther2	0	zOther2	0	zOther	0

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FAO>RFMO	RFMO>FAO	Only in FAO	Only in t-RFMO	SumNoFAO
2000-14	2000-14	2000-14	2000-14	
Sum>0		Sum<0	SumFAO	
zOther	5165 USA	-43591 Grenada	4318 zOther2	1908
Japan	4394 EU.France	-2857 Dominican Republic	3655 zMixed	1346
Mexico	2621 Ch. Taipei	-2277 Suriname	2429 Nigeria	16
Colombia	1709 EU.Spain	-1418 Colombia	2008 EU.Malta	1
South Africa	1566 Venezuela	-1116 Liberia	1763 EU.FR.St Pierre et Miquelon	0
Guinea	896 Argentina	-654 EU.Latvia	1701 Algeria	0
Korea Rep.	611 EU.Latvia	-377 Equatorial Guinea	1685 Angola	0
EU.Latvia	584 Dominican Republic	-314 Angola	669 Argentina	0
Dominican Republic	527 Korea Rep.	-304 Cuba	583 Barbados	0
Equatorial Guinea	500 EU.Portugal	-140 EU.FR.Martinique	532 Belize	0
EU.Portugal	458 Cuba	-138 UK.Other	416 Benin	0
UK.Other	337 Gabon	-124 Sao Tome and Principe	156 Brazil	0
Côte D'Ivoire	321 Japan	-57 USA.PuertoRico	143 Canada	0
Grenada	284 UK.Other	-9 Dominica	121 Cape Verde	0
Ch. Taipei	201 Belize	-7 Gambia	92 China, P.R.	0
Barbados	90 Panama	-3 Togo	21 Colombia	0
Brazil	56 South Africa	-3 USA.VirginIs	8 Congo	0
Sao Tome and Principe	39 St. Vincent and Grenadines	-3 Benin	5 Côte D'Ivoire	0
Dominica	28 Brazil	-2 EU.Netherlands	1 Cuba	0
Saint Lucia	17 Canada	-2 EU.UK	1 Curaçao	0
EU.France	13 Philippines	-2 Gabon	1 Dominica	0
China, P.R.	8 Curaçao	-2 Algeria	0 Dominican Republic	0
Cuba	6 Namibia	-2 Argentina	0 Equatorial Guinea	0
EU.Spain	5 Sao Tome and Principe	-2 Barbados	0 EU.Estonia	0
Philippines	4 Guatemala	-2 Belize	0 EU.FR.Martinique	0
Venezuela	3 Grenada	-2 Brazil	0 EU.France	0
Namibia	3 Guinea	-1 Canada	0 EU.Ireland	0
Curaçao	3 Côte D'Ivoire	-1 Cape Verde	0 EU.Latvia	0
Canada	2 Vanuatu	-1 China, P.R.	0 EU.Lithuania	0
Trinidad and Tobago	2 Cape Verde	-1 Congo	0 EU.Netherlands	0
Vanuatu	2 UK.Bermuda	-1 Côte D'Ivoire	0 EU.Poland	0
Cape Verde	2 Saint Lucia	-1 Curaçao	0 EU.Portugal	0
Belize	2 Barbados	-1 EU.Estonia	0 EU.Spain	0
St. Vincent and Grenadines	2 EU.UK	-1 EU.FR.St Pierre et Miquelon	0 EU.UK	0
Panama	1 EU.Netherlands	-1 EU.France	0 EU.UK.CaymanIslands	0
UK.Bermuda	1 Uruguay	-1 EU.Ireland	0 Faroe Islands	0
Senegal	1 zOther	-1 EU.Lithuania	0 Gabon	0
Uruguay	1 China, P.R.	-1 EU.Malta	0 Gambia	0
Guatemala	1 Senegal	-1 EU.Poland	0 Georgia	0
Morocco	1 Trinidad and Tobago	-1 EU.Portugal	0 Ghana	0
Seychelles	0 Dominica	-1 EU.Spain	0 Grenada	0
Angola	0 Russian Federation	-1 EU.UK.CaymanIslands	0 Guatemala	0
Gabon	0 Ghana	0 Faroe Islands	0 Guinea	0
Suriname	0 Angola	0 Georgia	0 Honduras	0
Algeria	0 Morocco	0 Ghana	0 Japan	0
Argentina	0 Equatorial Guinea	0 Guatemala	0 Korea Rep.	0
Benin	0 Mexico	0 Guinea	0 Liberia	0
Congo	0 Seychelles	0 Honduras	0 Libya	0
EU.Estonia	0 Suriname	0 Japan	0 Mexico	0
EU.FR.Martinique	0 EU.Ireland	0 Korea Rep.	0 Morocco	0
EU.FR.St Pierre et Miquelon	0 Algeria	0 Libya	0 Namibia	0
EU.Ireland	0 Benin	0 Mexico	0 Norway	0
EU.Lithuania	0 Colombia	0 Morocco	0 Panama	0
EU.Malta	0 Congo	0 Namibia	0 Philippines	0
EU.Netherlands	0 EU.Estonia	0 Nigeria	0 Russian Federation	0
EU.Poland	0 EU.FR.Martinique	0 Norway	0 Saint Lucia	0
EU.UK	0 EU.FR.St Pierre et Miquelon	0 Panama	0 Sao Tome and Principe	0
EU.UK.CaymanIslands	0 EU.Lithuania	0 Philippines	0 Senegal	0
Faroe Islands	0 EU.Malta	0 Russian Federation	0 Seychelles	0
Gambia	0 EU.Poland	0 Saint Lucia	0 Sierra Leone	0
Georgia	0 EU.UK.CaymanIslands	0 Senegal	0 South Africa	0
Ghana	0 Faroe Islands	0 Seychelles	0 St. Vincent and Grenadines	0
Honduras	0 Gambia	0 Sierra Leone	0 Suriname	0
Liberia	0 Georgia	0 South Africa	0 Ch. Taipei	0
Libya	0 Honduras	0 St. Vincent and Grenadines	0 Togo	0
Nigeria	0 Liberia	0 Ch. Taipei	0 Trinidad and Tobago	0
Norway	0 Libya	0 Trinidad and Tobago	0 UK.Bermuda	0
Russian Federation	0 Nigeria	0 UK.Bermuda	0 UK.Other	0
Sierra Leone	0 Norway	0 Ukraine	0 Ukraine	0
Togo	0 Sierra Leone	0 Un. Sov. Soc. Rep.	0 Un. Sov. Soc. Rep.	0
Ukraine	0 Togo	0 Uruguay	0 Uruguay	0
Un. Sov. Soc. Rep.	0 Ukraine	0 USA	0 USA	0
USA	0 Un. Sov. Soc. Rep.	0 Vanuatu	0 USA.PuertoRico	0
USA.PuertoRico	0 USA.PuertoRico	0 Venezuela	0 USA.VirginIs	0
USA.VirginIs	0 USA.VirginIs	0 zMixed	0 Vanuatu	0
zMixed	0 zMixed	0 zOther	0 Venezuela	0
zOther2	0 zOther2	0 zOther2	0 zOther	0

AO SKJ East

FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
zOther	26844	EU.France	-15561	EU.Lithuania	4357	zMixed	6978
EU.Portugal	1194	EU.Spain	-7346	Togo	4131	zOther2	3121
Equatorial Guinea	1000	EU.Portugal	-3809	Equatorial Guinea	2652	Nigeria	61
UK.Other	990	EU.Greece	-99	Sao Tome and Principe	222	EU.Malta	0
Korea Rep.	693	Ch. Taipei	-40	EU.Poland	221	Algeria	0
Angola	674	EU.Ireland	-15	Syria	111	Angola	0
Ch. Taipei	123	South Africa	-8	EU.Netherlands	91	Belize	0
Morocco	83	Curaçao	-2	Guinea-Bissau	58	Benin	0
Russian Federation	55	Senegal	-2	Russian Federation	29	Canada	0
Sao Tome and Principe	41	Japan	-2	Korea Rep.	18	Cape Verde	0
EU.France	16	Belize	-2	EU.Germany	14	China, P.R.	0
Syria	11	Sao Tome and Principe	-1	Gabon	10	Congo	0
South Africa	9	UK.Other	-1	Mauritania	10	Côte D'Ivoire	0
Japan	3	Guinea	-1	Namibia	1	Cuba	0
Belize	3	Côte D'Ivoire	-1	Algeria	0	Curaçao	0
Namibia	3	Cape Verde	-1	Angola	0	Equatorial Guinea	0
EU.Spain	3	Guatemala	-1	Belize	0	EU.Bulgaria	0
Panama	3	Panama	-1	Benin	0	EU.Estonia	0
Curaçao	2	Namibia	0	Canada	0	EU.France	0
Côte D'Ivoire	2	Ghana	0	Cape Verde	0	EU.Germany	0
Guatemala	2	Benin	0	China, P.R.	0	EU.Greece	0
Cape Verde	2	Equatorial Guinea	0	Congo	0	EU.Ireland	0
Guinea	1	St. Vincent and Grenadines	0	Côte D'Ivoire	0	EU.Italy	0
EU.Ireland	1	Angola	0	Cuba	0	EU.Latvia	0
Ghana	0	zOther	0	Curaçao	0	EU.Lithuania	0
EU.Lithuania	0	Syria	0	EU.Bulgaria	0	EU.Netherlands	0
EU.Greece	0	Algeria	0	EU.Estonia	0	EU.Poland	0
Senegal	0	Canada	0	EU.France	0	EU.Portugal	0
St. Vincent and Grenadines	0	China, P.R.	0	EU.Greece	0	EU.Spain	0
Algeria	0	Congo	0	EU.Ireland	0	EU.UK.CaymanIslands	0
Benin	0	Cuba	0	EU.Italy	0	Gabon	0
Canada	0	EU.Bulgaria	0	EU.Latvia	0	Ghana	0
China, P.R.	0	EU.Estonia	0	EU.Malta	0	Guatemala	0
Congo	0	EU.Germany	0	EU.Portugal	0	Guinea	0
Cuba	0	EU.Italy	0	EU.Spain	0	Guinea-Bissau	0
EU.Bulgaria	0	EU.Latvia	0	EU.UK.CaymanIslands	0	Japan	0
EU.Estonia	0	EU.Lithuania	0	Ghana	0	Korea Rep.	0
EU.Germany	0	EU.Malta	0	Guatemala	0	Mauritania	0
EU.Italy	0	EU.Netherlands	0	Guinea	0	Morocco	0
EU.Latvia	0	EU.Poland	0	Japan	0	Namibia	0
EU.Malta	0	EU.UK.CaymanIslands	0	Morocco	0	Norway	0
EU.Netherlands	0	Gabon	0	Nigeria	0	Panama	0
EU.Poland	0	Guinea-Bissau	0	Norway	0	Romania	0
EU.UK.CaymanIslands	0	Korea Rep.	0	Panama	0	Russian Federation	0
Gabon	0	Mauritania	0	Romania	0	Sao Tome and Principe	0
Guinea-Bissau	0	Morocco	0	Senegal	0	Senegal	0
Mauritania	0	Nigeria	0	Sierra Leone	0	Sierra Leone	0
Nigeria	0	Norway	0	South Africa	0	South Africa	0
Norway	0	Romania	0	St. Vincent and Grenadines	0	St. Vincent and Grenadines	0
Romania	0	Russian Federation	0	Ch. Taipei	0	Syria	0
Sierra Leone	0	Sierra Leone	0	UK.Other	0	Ch. Taipei	0
Togo	0	Togo	0	Un. Sov. Soc. Rep.	0	Togo	0
Un. Sov. Soc. Rep.	0	Un. Sov. Soc. Rep.	0	USA	0	UK.Other	0
USA	0	USA	0	zMixed	0	Un. Sov. Soc. Rep.	0
zMixed	0	zMixed	0	zOther	0	USA	0
zOther2	0	zOther2	0	zOther2	0	zOther	0

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FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
Mexico	632	USA	-1121	Cuba	3214	EU.Netherlands	35
Suriname	373	Ch. Taipei	-67	Suriname	1154	Argentina	0
Venezuela	116	EU.Portugal	-20	Dominican Republic	755	Barbados	0
Brazil	52	Brazil	-4	USA.PuertoRico	242	Belize	0
Dominica	46	St. Vincent and Grenadines	-2	Saint Lucia	142	Brazil	0
St. Vincent and Grenadines	36	UK.Bermuda	-2	Grenada	67	Canada	0
Ch. Taipei	30	Venezuela	-2	Dominica	36	Colombia	0
Cuba	26	Saint Lucia	-2	Ch. Taipei	16	Cuba	0
Dominican Republic	23	Grenada	-1	Barbados	11	Curaçao	0
UK.Bermuda	4	Japan	-1	USA.VirginIs	2	Dominica	0
Japan	2	EU.Spain	-1	Argentina	0	Dominican Republic	0
Saint Lucia	2	Barbados	-1	Belize	0	EU.France	0
Grenada	1	Belize	0	Brazil	0	EU.Portugal	0
EU.Portugal	1	Trinidad and Tobago	0	Canada	0	EU.Spain	0
EU.Spain	1	Argentina	0	Colombia	0	Grenada	0
Barbados	0	Canada	0	Curaçao	0	Japan	0
Argentina	0	Dominica	0	EU.France	0	Korea Rep.	0
Panama	0	Colombia	0	EU.Netherlands	0	Mexico	0
Belize	0	Cuba	0	EU.Portugal	0	Panama	0
Canada	0	Curaçao	0	EU.Spain	0	Saint Lucia	0
Colombia	0	Dominican Republic	0	Japan	0	St. Vincent and Grenadines	0
Curaçao	0	EU.France	0	Korea Rep.	0	Suriname	0
EU.France	0	EU.Netherlands	0	Mexico	0	Ch. Taipei	0
EU.Netherlands	0	Korea Rep.	0	Panama	0	Trinidad and Tobago	0
Korea Rep.	0	Mexico	0	St. Vincent and Grenadines	0	UK.Bermuda	0
Trinidad and Tobago	0	Panama	0	Trinidad and Tobago	0	USA	0
USA	0	Suriname	0	UK.Bermuda	0	USA.PuertoRico	0
USA.PuertoRico	0	USA.PuertoRico	0	USA	0	USA.VirginIs	0
USA.VirginIs	0	USA.VirginIs	0	Venezuela	0	Venezuela	0

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AO SKJ (East and West)

FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14		2000-14		2000-14	2000-14		
zOther	26844	EU.France	-15561	EU.Lithuania	4357	zMixed	6978
EU.Portugal	1184	EU.Spain	-7347	Togo	4131	zOther2	3121
Equatorial Guinea	1000	EU.Portugal	-3818	Cuba	3214	Nigeria	61
UK.Other	990	USA	-1121	Equatorial Guinea	2652	EU.Malta	0
Korea Rep.	693	EU.Greece	-99	Suriname	1154	Algeria	0
Angola	674	Taiwan	-46	Dominican Republic	755	Angola	0
Mexico	632	EU.Ireland	-15	USA.PuertoRico	242	Argentina	0
Suriname	373	South Africa	-8	Sao Tome and Principe	222	Barbados	0
Venezuela	116	Brazil	-4	EU.Poland	221	Belize	0
Taiwan	108	St. Vincent and Grenadines	-2	Saint Lucia	142	Benin	0
Morocco	83	UK.Bermuda	-2	Syria	111	Brazil	0
Russian Federation	55	Venezuela	-2	Grenada	67	Canada	0
Brazil	52	Curaçao	-2	Guinea-Bissau	58	Cape Verde	0
Dominica	46	Saint Lucia	-2	EU.Netherlands	55	China, P.R.	0
Sao Tome and Principe	41	Senegal	-2	Dominica	36	Colombia	0
St. Vincent and Grenadines	36	Belize	-2	Russian Federation	29	Congo	0
Cuba	26	Sao Tome and Principe	-1	Korea Rep.	18	Côte D'Ivoire	0
Dominican Republic	23	UK.Other	-1	EU.Germany	14	Cuba	0
EU.France	16	Guinea	-1	Barbados	11	Curaçao	0
Syria	11	Côte D'Ivoire	-1	Gabon	10	Dominica	0
South Africa	9	Cape Verde	-1	Mauritania	10	Dominican Republic	0
UK.Bermuda	4	Japan	-1	USA.VirginIs	2	Equatorial Guinea	0
Japan	4	Grenada	-1	Namibia	1	EU.Bulgaria	0
Belize	3	Guatemala	-1	Algeria	0	EU.Estonia	0
Namibia	3	Panama	-1	Angola	0	EU.France	0
EU.Spain	3	Barbados	-1	Argentina	0	EU.Germany	0
Panama	3	Namibia	0	Belize	0	EU.Greece	0
Curaçao	2	Ghana	0	Benin	0	EU.Ireland	0
Côte D'Ivoire	2	Benin	0	Brazil	0	EU.Italy	0
Guatemala	2	Trinidad and Tobago	0	Canada	0	EU.Latvia	0
Cape Verde	2	Equatorial Guinea	0	Cape Verde	0	EU.Lithuania	0
Saint Lucia	2	Argentina	0	China, P.R.	0	EU.Netherlands	0
Grenada	1	Canada	0	Colombia	0	EU.Poland	0
Guinea	1	Dominica	0	Congo	0	EU.Portugal	0
EU.Ireland	1	Angola	0	Côte D'Ivoire	0	EU.Spain	0
EU.Netherlands	1	zOther	0	Curaçao	0	EU.UK.CaymanIslands	0
Ghana	0	Syria	0	EU.Bulgaria	0	Gabon	0
EU.Lithuania	0	Algeria	0	EU.Estonia	0	Ghana	0
EU.Greece	0	China, P.R.	0	EU.France	0	Grenada	0
Barbados	0	Colombia	0	EU.Greece	0	Guatemala	0
Argentina	0	Congo	0	EU.Ireland	0	Guinea	0
Senegal	0	Cuba	0	EU.Italy	0	Guinea-Bissau	0
Algeria	0	Dominican Republic	0	EU.Latvia	0	Japan	0
Benin	0	EU.Bulgaria	0	EU.Malta	0	Korea Rep.	0
Canada	0	EU.Estonia	0	EU.Portugal	0	Mauritania	0
China, P.R.	0	EU.Germany	0	EU.Spain	0	Mexico	0
Colombia	0	EU.Italy	0	EU.UK.CaymanIslands	0	Morocco	0
Congo	0	EU.Latvia	0	Ghana	0	Namibia	0
EU.Bulgaria	0	EU.Lithuania	0	Guatemala	0	Norway	0
EU.Estonia	0	EU.Malta	0	Guinea	0	Panama	0
EU.Germany	0	EU.Netherlands	0	Japan	0	Romania	0
EU.Italy	0	EU.Poland	0	Mexico	0	Russian Federation	0
EU.Latvia	0	EU.UK.CaymanIslands	0	Morocco	0	Saint Lucia	0
EU.Malta	0	Gabon	0	Nigeria	0	Sao Tome and Principe	0
EU.Poland	0	Guinea-Bissau	0	Norway	0	Senegal	0
EU.UK.CaymanIslands	0	Korea Rep.	0	Panama	0	Sierra Leone	0
Gabon	0	Mauritania	0	Romania	0	South Africa	0
Guinea-Bissau	0	Mexico	0	Senegal	0	St. Vincent and Grenadines	0
Mauritania	0	Morocco	0	Sierra Leone	0	Suriname	0
Nigeria	0	Nigeria	0	South Africa	0	Syria	0
Norway	0	Norway	0	St. Vincent and Grenadines	0	Taiwan	0
Romania	0	Romania	0	Taiwan	0	Togo	0
Sierra Leone	0	Russian Federation	0	Trinidad and Tobago	0	Trinidad and Tobago	0
Togo	0	Sierra Leone	0	UK.Bermuda	0	UK.Bermuda	0
Trinidad and Tobago	0	Suriname	0	UK.Other	0	UK.Other	0
Un. Sov. Soc. Rep.	0	Togo	0	Un. Sov. Soc. Rep.	0	Un. Sov. Soc. Rep.	0
USA	0	Un. Sov. Soc. Rep.	0	USA	0	USA	0
USA.PuertoRico	0	USA.PuertoRico	0	Venezuela	0	USA.PuertoRico	0
USA.VirginIs	0	USA.VirginIs	0	zMixed	0	USA.VirginIs	0
zMixed	0	zMixed	0	zOther	0	Venezuela	0
zOther2	0	zOther2	0	zOther2	0	zOther	0

AO BFT West

FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
Japan	1289	USA	-6949	EU.Portugal	12	UK.Other	0
Mexico	464	Korea Rep.	-53	Argentina	0	EU.UK	0
Canada	6	Argentina	-19	Brazil	0	Argentina	0
EU.FR.St Pierre et Miquelon	1	EU.FR.St Pierre et Miquelon	-2	Canada	0	Brazil	0
Brazil	1	Cuba	-1	China, P.R.	0	Canada	0
UK.Bermuda	1	UK.Bermuda	-1	Cuba	0	China, P.R.	0
Cuba	0	Canada	-1	EU.FR.St Pierre et Miquelon	0	Cuba	0
Argentina	0	zOther	0	EU.Italy	0	EU.FR.St Pierre et Miquelon	0
China, P.R.	0	Japan	0	EU.Poland	0	EU.Italy	0
EU.Italy	0	Mexico	0	EU.UK	0	EU.Poland	0
EU.Poland	0	Panama	0	Japan	0	EU.Portugal	0
EU.Portugal	0	EU.Portugal	0	Korea Rep.	0	Japan	0
EU.UK	0	Brazil	0	Mexico	0	Korea Rep.	0
Korea Rep.	0	China, P.R.	0	Panama	0	Mexico	0
Panama	0	EU.Italy	0	Saint Lucia	0	Panama	0
Saint Lucia	0	EU.Poland	0	Ch. Taipei	0	Saint Lucia	0
Ch. Taipei	0	EU.UK	0	UK.Bermuda	0	Ch. Taipei	0
UK.Other	0	Saint Lucia	0	UK.Other	0	UK.Bermuda	0
Uruguay	0	Ch. Taipei	0	Uruguay	0	Uruguay	0
USA	0	UK.Other	0	USA	0	USA	0
zOther	0	Uruguay	0	zOther	0	zOther	0

AO BFT Eastern and Mediterranean

FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
Japan	440	Algeria	-2377	Syria	694	Senegal	6
Libya	403	Japan	-1855	Algeria	281	Albania	0
Ch. Taipei	94	Ch. Taipei	-552	Iceland	29	Algeria	0
Korea Rep.	41	Libya	-285	Serbia & Montenegro	27	Cape Verde	0
Algeria	14	Korea Rep.	-168	Faroe Islands	7	China, P.R.	0
EU.Portugal	13	Iceland	-50	EU.Netherlands	1	Curaçao	0
EU.Cyprus	8	EU.Portugal	-27	Albania	0	Egypt	0
EU.Spain	5	EU.Spain	-23	Cape Verde	0	EU.Croatia	0
EU.France	5	EU.Malta	-20	China, P.R.	0	EU.Cyprus	0
EU.Italy	3	EU.Ireland	-4	Curaçao	0	EU.Denmark	0
Iceland	2	EU.France	-3	Egypt	0	EU.France	0
Tunisie	2	EU.Croatia	-3	EU.Croatia	0	EU.Germany	0
EU.Malta	2	China, P.R.	-3	EU.Cyprus	0	EU.Greece	0
EU.Greece	1	EU.Greece	-2	EU.Denmark	0	EU.Ireland	0
Syria	1	Turkey	-2	EU.France	0	EU.Italy	0
Albania	1	Tunisie	-2	EU.Germany	0	EU.Malta	0
China, P.R.	1	Morocco	-1	EU.Greece	0	EU.Netherlands	0
EU.Croatia	1	EU.Italy	-1	EU.Ireland	0	EU.Poland	0
EU.UK	0	EU.Cyprus	-1	EU.Italy	0	EU.Portugal	0
Sierra Leone	0	Norway	-1	EU.Malta	0	EU.Spain	0
Seychelles	0	EU.UK	-1	EU.Poland	0	EU.Sweden	0
Egypt	0	Serbia & Montenegro	0	EU.Portugal	0	EU.UK	0
Turkey	0	Sierra Leone	0	EU.Spain	0	Faroe Islands	0
EU.Ireland	0	Egypt	0	EU.Sweden	0	Guinea	0
Morocco	0	Albania	0	EU.UK	0	Iceland	0
zOther	0	zOther	0	Guinea	0	Israel	0
Cape Verde	0	Cape Verde	0	Israel	0	Japan	0
Curaçao	0	Curaçao	0	Japan	0	Korea Rep.	0
EU.Denmark	0	EU.Denmark	0	Korea Rep.	0	Libya	0
EU.Germany	0	EU.Germany	0	Libya	0	Morocco	0
EU.Netherlands	0	EU.Netherlands	0	Morocco	0	Norway	0
EU.Poland	0	EU.Poland	0	Norway	0	Panama	0
EU.Sweden	0	EU.Sweden	0	Panama	0	Serbia & Montenegro	0
Faroe Islands	0	Faroe Islands	0	Senegal	0	Seychelles	0
Guinea	0	Guinea	0	Seychelles	0	Sierra Leone	0
Israel	0	Israel	0	Sierra Leone	0	Syria	0
Norway	0	Panama	0	Ch. Taipei	0	Ch. Taipei	0
Panama	0	Senegal	0	Tunisie	0	Tunisie	0
Senegal	0	Seychelles	0	Turkey	0	Turkey	0
Serbia & Montenegro	0	Syria	0	USA	0	USA	0
USA	0	USA	0	Yugoslavia SFR	0	Yugoslavia SFR	0
Yugoslavia SFR	0	Yugoslavia SFR	0	zOther	0	zOther	0

AO BFT (Eastern, Mediterranean and West)

FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14		2000-14		2000-14		2000-14	
Japan	578	USA	-6949	Syria	694	Senegal	6
Mexico	464	Algeria	-2377	Algeria	281	UK.Other	0
Libya	403	Japan	-705	Iceland	29	Albania	0
Taiwan	94	Taiwan	-552	Serbia & Montenegro	27	Algeria	0
Algeria	14	Libya	-285	Faroe Islands	7	Argentina	0
EU.Portugal	13	Korea Rep.	-180	EU.Netherlands	1	Brazil	0
EU.Cyprus	8	Iceland	-50	Albania	0	Canada	0
Canada	6	EU.Spain	-23	Argentina	0	Cape Verde	0
EU.Spain	5	EU.Malta	-20	Brazil	0	China, P.R.	0
EU.France	5	Argentina	-19	Canada	0	Cuba	0
EU.Italy	3	EU.Portugal	-15	Cape Verde	0	Curaçao	0
Iceland	2	EU.Ireland	-4	China, P.R.	0	Egypt	0
Tunisie	2	EU.France	-3	Cuba	0	EU.Croatia	0
EU.Malta	2	EU.Croatia	-3	Curaçao	0	EU.Cyprus	0
EU.FR.St Pierre et Mique	1	China, P.R.	-3	Egypt	0	EU.Denmark	0
EU.Greece	1	EU.Greece	-2	EU.Croatia	0	EU.FR.St Pierre et Mique	0
Syria	1	Turkey	-2	EU.Cyprus	0	EU.France	0
Brazil	1	Tunisie	-2	EU.Denmark	0	EU.Germany	0
Albania	1	EU.FR.St Pierre et Mique	-2	EU.FR.St Pierre et Mique	0	EU.Greece	0
China, P.R.	1	Morocco	-1	EU.France	0	EU.Ireland	0
UK.Bermuda	1	EU.Italy	-1	EU.Germany	0	EU.Italy	0
EU.Croatia	1	Cuba	-1	EU.Greece	0	EU.Malta	0
Cuba	0	UK.Bermuda	-1	EU.Ireland	0	EU.Netherlands	0
Korea Rep.	0	Canada	-1	EU.Italy	0	EU.Poland	0
EU.UK	0	EU.Cyprus	-1	EU.Malta	0	EU.Portugal	0
Sierra Leone	0	EU.UK	-1	EU.Poland	0	EU.Spain	0
Seychelles	0	Norway	-1	EU.Portugal	0	EU.Sweden	0
Egypt	0	zOther	-1	EU.Spain	0	EU.UK	0
Turkey	0	Serbia & Montenegro	0	EU.Sweden	0	Faroe Islands	0
EU.Ireland	0	Sierra Leone	0	EU.UK	0	Guinea	0
Morocco	0	Mexico	0	Guinea	0	Iceland	0
zOther	0	Panama	0	Israel	0	Israel	0
Argentina	0	Egypt	0	Japan	0	Japan	0
Cape Verde	0	Albania	0	Korea Rep.	0	Korea Rep.	0
Curaçao	0	Brazil	0	Libya	0	Libya	0
EU.Denmark	0	Cape Verde	0	Mexico	0	Mexico	0
EU.Germany	0	Curaçao	0	Morocco	0	Morocco	0
EU.Netherlands	0	EU.Denmark	0	Norway	0	Norway	0
EU.Poland	0	EU.Germany	0	Panama	0	Panama	0
EU.Sweden	0	EU.Netherlands	0	Saint Lucia	0	Saint Lucia	0
Faroe Islands	0	EU.Poland	0	Senegal	0	Serbia & Montenegro	0
Guinea	0	EU.Sweden	0	Seychelles	0	Seychelles	0
Israel	0	Faroe Islands	0	Sierra Leone	0	Sierra Leone	0
Norway	0	Guinea	0	Taiwan	0	Syria	0
Panama	0	Israel	0	Tunisie	0	Taiwan	0
Saint Lucia	0	Saint Lucia	0	Turkey	0	Tunisie	0
Senegal	0	Senegal	0	UK.Bermuda	0	Turkey	0
Serbia & Montenegro	0	Seychelles	0	UK.Other	0	UK.Bermuda	0
UK.Other	0	Syria	0	Uruguay	0	Uruguay	0
Uruguay	0	UK.Other	0	USA	0	USA	0
USA	0	Uruguay	0	Yugoslavia SFR	0	Yugoslavia SFR	0
Yugoslavia SFR	0	Yugoslavia SFR	0	zOther	0	zOther	0

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AO ALB (All)

FAO>RFMO	Sum>0	RFMO>FAO	Sum<0	Only in FAO	SumFAO	Only in t-RFMO	SumNoFAO
2000-14	2000-14	2000-14	2000-14	2000-14	2000-14	2000-14	
Japan	4422	Ch. Taipei	-5716	Tunisie	4109	Seychelles	0
EU.Portugal	2407	USA	-4338	Dominican Republic	1434	Algeria	0
Ch. Taipei	1195	Cuba	-1709	Syria	458	Angola	0
Venezuela	1157	EU.Portugal	-658	Suriname	233	Argentina	0
EU.Cyprus	100	Saint Lucia	-118	Côte D'Ivoire	186	Barbados	0
South Africa	95	Japan	-101	Grenada	90	Belize	0
Korea Rep.	93	Korea Rep.	-29	UK.Other	40	Brazil	0
Namibia	33	Trinidad and Tobago	-17	Togo	28	Canada	0
EU.UK	18	EU.Spain	-12	Saint Lucia	13	Cape Verde	0
Barbados	8	EU.Malta	-11	Barbados	10	China, P.R.	0
UK.Bermuda	7	Brazil	-6	Algeria	0	Côte D'Ivoire	0
EU.France	5	St. Vincent and Grenadines	-4	Angola	0	Cuba	0
Grenada	4	China, P.R.	-4	Argentina	0	Curaçao	0
Brazil	4	EU.France	-3	Belize	0	Dominican Republic	0
Canada	3	UK.Other	-3	Brazil	0	Egypt	0
EU.Italy	3	EU.Ireland	-3	Canada	0	EU.Croatia	0
China, P.R.	2	South Africa	-2	Cape Verde	0	EU.Cyprus	0
EU.Ireland	2	EU.Greece	-2	China, P.R.	0	EU.FR.St Pierre et Miquelon	0
EU.Spain	2	Philippines	-2	Cuba	0	EU.France	0
UK.Other	2	Panama	-2	Curaçao	0	EU.Greece	0
St. Vincent and Grenadines	2	UK.Bermuda	-2	Egypt	0	EU.Ireland	0
EU.Malta	2	Canada	-2	EU.Croatia	0	EU.Italy	0
Saint Lucia	1	Vanuatu	-2	EU.Cyprus	0	EU.Malta	0
Uruguay	1	Barbados	-2	EU.FR.St Pierre et Miquelon	0	EU.Netherlands	0
Philippines	1	Venezuela	-2	EU.France	0	EU.Portugal	0
Belize	1	EU.Italy	-1	EU.Greece	0	EU.Spain	0
EU.Greece	1	EU.Cyprus	-1	EU.Ireland	0	EU.UK	0
Vanuatu	1	Grenada	-1	EU.Italy	0	Ghana	0
Trinidad and Tobago	1	Belize	-1	EU.Malta	0	Grenada	0
Turkey	1	Namibia	-1	EU.Netherlands	0	Guatemala	0
EU.Croatia	1	Argentina	-1	EU.Portugal	0	Guinea	0
Syria	1	EU.FR.St Pierre et Miquelon	-1	EU.Spain	0	Honduras	0
Argentina	1	Guinea	-1	EU.UK	0	Japan	0
Panama	0	Côte D'Ivoire	-1	Ghana	0	Korea Rep.	0
zOther	0	zOther	-1	Guatemala	0	Liberia	0
EU.Netherlands	0	EU.UK	0	Guinea	0	Mexico	0
Angola	0	EU.Croatia	0	Honduras	0	Morocco	0
Suriname	0	Syria	0	Japan	0	Namibia	0
Côte D'Ivoire	0	Turkey	0	Korea Rep.	0	Panama	0
Mexico	0	Curaçao	0	Liberia	0	Philippines	0
EU.FR.St Pierre et Miquelon	0	Dominican Republic	0	Mexico	0	Saint Lucia	0
Sierra Leone	0	Morocco	0	Morocco	0	Senegal	0
Curaçao	0	Suriname	0	Namibia	0	Sierra Leone	0
Guatemala	0	Mexico	0	Panama	0	South Africa	0
Algeria	0	Algeria	0	Philippines	0	St. Vincent and Grenadines	0
Cape Verde	0	Angola	0	Senegal	0	Suriname	0
Cuba	0	Cape Verde	0	Seychelles	0	Syria	0
Dominican Republic	0	Egypt	0	Sierra Leone	0	Ch. Taipei	0
Egypt	0	EU.Netherlands	0	South Africa	0	Togo	0
Ghana	0	Ghana	0	St. Vincent and Grenadines	0	Trinidad and Tobago	0
Guinea	0	Guatemala	0	Ch. Taipei	0	Tunisie	0
Honduras	0	Honduras	0	Trinidad and Tobago	0	Turkey	0
Liberia	0	Liberia	0	Turkey	0	UK.Bermuda	0
Morocco	0	Senegal	0	UK.Bermuda	0	UK.Other	0
Senegal	0	Seychelles	0	Un. Sov. Soc. Rep.	0	Un. Sov. Soc. Rep.	0
Seychelles	0	Sierra Leone	0	Uruguay	0	Uruguay	0
Togo	0	Togo	0	USA	0	USA	0
Tunisie	0	Tunisie	0	Vanuatu	0	Vanuatu	0
Un. Sov. Soc. Rep.	0	Un. Sov. Soc. Rep.	0	Venezuela	0	Venezuela	0
USA	0	Uruguay	0	zOther	0	zOther	0

AO ALB (Med)

FAO>RFMO		RFMO>FAO		Only in FAO		Only in t-RFMO	
2000-14	Sum>0	2000-14	Sum<0	2000-14	SumFAO	2000-14	SumNoFAO
EU.Cyprus	100	EU.Malta	-11	Tunisie	4109	Algeria	0
EU.Spain	3	EU.Spain	-2	Syria	458	Egypt	0
EU.Italy	3	EU.Greece	-2	EU.Portugal	17	EU.Croatia	0
EU.Malta	2	EU.France	-2	EU.France	1	EU.Cyprus	0
EU.Greece	1	EU.Italy	-1	Algeria	0	EU.France	0
EU.France	1	EU.Cyprus	-1	Egypt	0	EU.Greece	0
Turkey	1	EU.Croatia	0	EU.Croatia	0	EU.Italy	0
EU.Croatia	1	Syria	0	EU.Cyprus	0	EU.Malta	0
Syria	1	Turkey	0	EU.Greece	0	EU.Portugal	0
Algeria	0	EU.Portugal	0	EU.Italy	0	EU.Spain	0
Egypt	0	Japan	0	EU.Malta	0	Japan	0
EU.Portugal	0	Algeria	0	EU.Spain	0	Korea Rep.	0
Japan	0	Egypt	0	Japan	0	Morocco	0
Korea Rep.	0	Korea Rep.	0	Korea Rep.	0	Syria	0
Morocco	0	Morocco	0	Morocco	0	Ch. Taipei	0
Ch. Taipei	0	Ch. Taipei	0	Ch. Taipei	0	Tunisie	0
Tunisie	0	Tunisie	0	Turkey	0	Turkey	0
zOther	0	zOther	0	zOther	0	zOther	0