

**Annex 11**

**Report of the Statistics Working Group Workshop  
(July 22-24, 2007; Busan, Korea)**

**1.0 OPENING OF MEETING, APPOINTMENT OF CHAIR AND RAPPORTEUR,  
ADOPTION OF AGENDA AND TABLING OF DOCUMENTS (AGENDA  
ITEMS 1-4)**

N. Miyabe, the Chairman of the STATWG, opened the meeting and welcomed participants to the meeting. Then, each participant introduced themselves (*Attachment 1*). S. Clarke was appointed as the rapporteur.

Following housekeeping and logistics announcements, N. Miyabe introduced the draft agenda for the meeting. In response to a question it was clarified that the website would be discussed in conjunction with Item 8. There were no further comments on the agenda and it was adopted (*Attachment 2*).

Several documents were tabled and given document numbers (*Attachment 3*).

**2.0 REVIEW OF DATA REQUIREMENTS FOR STOCK ASSESSMENT AND  
FISHERY MONITORING (AGENDA ITEM 5)**

By way of introduction, the types of data held by ISC were reviewed. The STATWG gathers aggregated catch and effort (Category I); catch and effort at a finer scale based on logbooks (Category II); and size data for ISC species (Category III). Each species Working Group (WG) may have more detailed data and in fact may need more sophisticated data for their assessments. Comments from WG Chairs were invited with regard to expectations of the STATWG. Some WG Chairs mentioned that although the Categories of data are clear these are not the only data required for stock assessments and under the current situation the WGs must compile specific data for assessments themselves.

**3.0 REVIEW OF DATA COLLECTED BY PARTICIPANTS (AGENDA ITEM 6)**

H. Yamada presented **ISC/07/STATWG/01**. This document begins to provide meta data for Japan's ISC database submissions but it was acknowledged that more detail is required.

Category I data is derived from logbooks from distant water and offshore longliners, pole and line and purse seine fisheries. These logbooks are available through 2006 but the

2006 data are provisional for longlines and pole and line because not all data have been received. The use of logbook data has led to underestimation of Pacific bluefin tuna in some fisheries (purse seines) and overestimation in others (pole and line). Other coastal longline, purse seine and pole and line fisheries not covered by logbooks are obtained from the Statistical Division of the Ministry of Agriculture, Forestry and Fisheries (MAFF). For the gillnet fishery, which is also not covered by logbooks, statistics are obtained from the Statistical Division of MAFF but these data are for the Pacific Ocean as a whole.

Category II data again covers the distant water and offshore longline, purse seine and pole and line fisheries. Recently small coastal longliners are also required to submit logbooks. As a result, all longliners larger than 20 GRT are included in Category II data submissions. While some 10-20 GRT are now also covered by logbook reporting requirements the coverage is low (about 70%) and therefore none of these smaller longliners are included in Category II submissions. Under logbook reporting requirements, tunas and billfish are recorded by weight and number by species; position; surface temperature; number of hooks; and hooks per basket (and other gear configuration information since 1997). Coverage rates are about 95% for distant water longliners, and 90% for offshore longliners. The remaining effort is accounted for by raising these data by 5 x 5 degree area. Similar logbooks are used for purse seine except that Pacific bluefin, yellowfin, albacore, bigeye and skipjack are the only recorded tuna and tuna like species. School type is recorded and search days/time are included. Purse seine logbook coverage is about 100% so it is not necessary to raise these data. These data are compiled on a very fine scale but are aggregate to a 1 x 1 degree scale for Category II reporting. Pole and line fisheries use logbooks but these records do not include time spent for searching. The coverage is around 95%. These data are not raised and are aggregated to a 1 x 1 degree scale for Category II reporting.

Category III data for the distant water longline fishery has a low coverage of about 4%. Offshore and coastal longlines have about 20% coverage. Purse seines are sampled via port sampling programs since about 10 years ago—coverage is about 13% on trip basis. Pole and line catch data for Category III are compiled via port sampling and coverage rates are less than 5%. Useful size frequency data are also collected, especially for Pacific bluefin tuna, by nationwide port sampling conducted since the mid-1990s. Japan has not yet submitted Category III data to ISC.

In the discussion following the presentation it was confirmed that small scale fisheries for Pacific bluefin tuna are covered by data from the Information Division of the Ministry of Agriculture, Forestry and Fisheries. There are some cases where several small tunas are aggregated due to species identification problems. This is somewhat compensated by nation-wide data collection project which gathers data mostly on Pacific bluefin tuna catches.

Chinese Taipei explained that it is difficult for them to contribute historical data to the STATWG for several reasons: 1) data are held by individual researchers in different formats; 2) when data have been contributed to various WGs it was not anticipated that a

separate submission to the STATWG would also be necessary. It was acknowledged by the meeting that although ideally the submissions to the WGs and the STATWG would be the same, in practice this is not likely to be the case.

Data correspondents were asked to report on their individual data submissions and presented verbal reports as follows:

**Canada:** Submitted Category I data are derived from logbooks and sales slips, compiled through an internal database in MS Access (a publication is available for download from DFO which describes this system). All data are for troll-caught albacore. The data are sent to Al Coan at NMFS and they are placed on the ftp site. When the dataset is complete it is submitted to ISC. Category II data are catch and effort by 1x1 degree grid derived from logbooks. These data are in Excel format. The files loaded annually on the ftp site through Al Coan. As for Category III, Canada does not collect size frequencies measurements, but US port samples include Canadian albacore troll catch, therefore these data comprise the Canadian Category III submission. ISC database managers confirmed that Canada's last data submission was made on 10 May 2007.

**United States:** Annual submissions for 2005-2006 data in Categories I-III were submitted on 1 July 2007. Category I data for some fisheries dates back to 1936, and has been submitted for ISC species of interest only. The usefulness of submitting data for other bycatch species was mentioned as an issue for discussion later. Category I data were also submitted individually to the WGs as well. Category II data now include harpoon data since 1974, gill net data since 1981, troll and pole and line data since 1961, and longline data since 1990. All series are nearly complete through 2006. Category III data exists since 1961 for troll and pole and line fisheries, and since 1987 for longlines. Further data compilation is planned including digitizing historical troll and handline data prior to World War II; observer data for albacore longlines since 1994; and longline and gill net observer data for other species.

**Chinese Taipei:** Category I data are derived from commercial landings data and coverage is 100%. Category II data are compiled from logbooks with Category I data and are raised to nearly 100%. Category III data are obtained for distant water fleets from fishermen and port sampling for offshore fleets. Usually data have been submitted directly to the WG rather than to the STATWG. In this case it was suggested that it would be easier if the STATWG could compile the data for the main database from the WGs. In response to a question about whether port sampling for Pacific bluefin tuna and albacore are included in Category III, it was clarified that while there may be some data on this, there is little consistency within the system and sometimes academic scientists don't provide data to Government. Once again the issue of the potentially different uses of the WG (for stock assessment) and STATWG (for public and administrative reasons) databases were highlighted. The point was also reiterated that if relevant data exist and have been provided to other RFMOs, they should be provided to ISC also to avoid problems of inconsistency between the ISC and other RFMO databases.

**Korea:** Fisheries statistics have been provided for the ISC area (i.e. north of 20°N) but Korea has few operations catching tuna and tuna-like species in this area. If data is available it has been submitted and it should be the same as what was submitted to the WCPFC. It was noted that Category III data should be submitted by month, i.e. to the same resolution as the Category II catch data, when available. In response, it was stated that size frequency data could be provided by month. In reply to another question it was confirmed that the data series for Pacific bluefin tuna begins in 2002 and that the only other data is historical (pre-2002) data for coastal purse seines. There are some albacore data for the North Pacific but it is south of 20°N. Korea was reminded that data requirements, as specified in the forthcoming ISC Manual, call for data to be submitted for the entire North Pacific not only north of 20°N, for all ISC species of interest, and for as long an historical period as possible. In general, the expectation would be from 1971 to the present, and then gradually working backward to cover older, historical data. Submissions to WCPFC should not be considered to serve the needs of ISC since ISC requires that the data be partitioned at the equator, ISC requires data for the whole North Pacific regardless of longitude, and ISC requires data for a longer list of species than is required by the WCPFC.

**Mexico:** All fisheries are required to have logbooks, there are both national and IATTC observers for purse seine fisheries, and also national and IATTC Category III (size frequency) sampling. Mexico has submitted data to ISC for some species but the time series is not complete. In all cases a longer time series has been submitted to the WGs so that it is possible to improve or update the submission to the STATWG. There may be some coordination needed with IATTC to present Category II and III data to ISC.

**China:** It was noted that there was no representative from China in attendance. L.M. Song had been contacted recently and requested to provide a national report but no report has been submitted.

#### **4.0 UPDATING DATA INVENTORY AND REPOSITORY (AGENDA ITEM 7)**

##### **4.1 Review of Database Status**

H. Yamada presented **ISC/07/STATWG/02** and **ISC/07/STATWG/03**. These documents summarize the available Category I data, and the number of records available in Categories I-III, respectively in the ISC database. Data are currently stored on ftp site created by Al Coan (U.S.). All data correspondents were recently prompted to meet the 1 July deadline for data submission but the response was incomplete. Canada, Chinese Taipei, Korea and the U.S. have submitted data for Categories I-III. Japan has submitted data for Categories I and II only, while Mexico has only submitted Category I data. No data have been received from China. Only Japan, Chinese Taipei and the U.S. have provided meta data.

Formatting problems have been encountered with submissions from Chinese Taipei, Korea and Mexico and have led to the rejection of some data when uploading into the

database. Another issue is that the STATWG is in some cases quite different from the data used by the WG.

H. Yamada also elaborated on the formatting problems. Last year a data submission protocol was circulated including an explanation of how to work with the database. Despite this, some submissions have had missing codes or missing columns which caused the format to collapse, or in another case, units were in metric tonnes rather than the required unit of 0.1 mt. In the latter case, if meta data are available it may be possible to correct this, but otherwise the true unit is unknown and the data cannot be rectified.

In response to a question, it was confirmed that **ISC/07/STATWG/03**, Table 4 contains data on catch in both number and weight. Data type 1 indicates the data are in number (unit is 1000 fish) and data type 2 indicates they are in weight (unit in 100 mt). The values shown are those that were submitted by the data correspondents and there is no way to know whether or not they have been raised. It was suggested that such information should be made available in the meta data or, alternatively, that a new code could be added to the database to indicate whether or not the data have been raised.

Chinese Taipei explained that some of their difficulties with data submission stem from a current re-organization of the Fisheries Administration. This disruption has caused the data submission to be delayed. In addition, originally the albacore, Pacific Pacific bluefin tuna, striped marlin and swordfish data were given to the WGs but they didn't realize they needed to make a separate submission to the STATWG. They will be looking into this with a view to remedying the situation.

It was highlighted that **ISC/07/STATWG/02** contains Tables of Category I data which are currently held by the STATWG. All data received before the submission deadline of 1 July 2007 are included but later incoming data has not yet been incorporated. It was suggested that all data correspondents review the tables carefully in order to pick up on any obvious errors. It was noted that the database is sparsely populated in several areas, particularly Category III.

Alternative formats which could be used to better show, at a glance, the contents of the database were suggested. Specifically, there could be two objectives to the tables: 1) to show what data are available; and 2) to show the quality of the data. Summary tables should avoid trying to address both objectives at once since such a presentation will not be effective. Instead, for the first objective it was recommended to plot years on one axis, country or species (or both) on the other axis, and shade the cell depending on whether data are available. This type of presentation might be difficult for Category I, it would be easy to do for Categories II and III and is often used by other RFMOs. For the second objective, tables which allow the data quality to be judged could be designed. For example, how complete is the data coverage; how many samples are included in the submission; what is the species composition and is it realistic?

It was stated that data quality monitoring requires a full-time dedicated and proactive data manager and cannot be left to the annual meetings of the STATWG to handle. The

discussion concluded with a commitment by Japan to review the data structure and increase efforts toward data management.

## 4.2 Production of Category I Catch Tables

Participants confirmed that the only public domain data are the ISC Category I data. Since these data might be compared to other RFMO data sets it would be useful to ensure the ISC Category I data are consistent with data held by other organizations.

A variety of views were expressed regarding which group has the responsibility for providing catch tables and the various purposes that Category I data may serve.

The group was reminded that since ISC's role is scientific rather than administrative, its databases should present the best available scientific data. All participants agreed that the WG catch tables represent the best data for assessment. One view was that the WGs should provide the catch tables to the Plenary because the main ISC database is incomplete. However, concerns were expressed that these data might not be the most appropriate data to present for the purposes of the Plenary because they might not represent the officially submitted catches and there might be discrepancies between these data and what is reported to other RFMOs. While some participants believed it is the responsibility of the STATWG to recommend which data to use to the Plenary, others felt that the Plenary should decide which data should be used. One participant stated that the ISC database system is immature and the role of the STATWG should be to solve problems that are common to more than one WG.

Issues have arisen in working with the ISC database specifically in terms of differences between the WG databases and the main database held by the STATWG. The issue arises when data are submitted to a WG, then they are changed during the assessment process but these changes are not picked up in the STATWG databases. This occurs even in Category I data and over time these differences can become quite large. It was acknowledged that there are several reasons why catch tables from the WGs and main ISC database would be different including differences in compilation methodologies and data sources (e.g. official reporting systems versus science-based estimations), certain data sets missing from one or the other database, and/or changes made to the data within the WGs during assessments.

For information and comparison, WG catch tables and the STATWG Category I tables for Pacific bluefin tuna, albacore, striped marlin and swordfish were circulated. Each WG Chair was asked to comment on the differences. The albacore WG Chair stated that the albacore WG catch data are the best available data and that these data should be presented as the catch tables. The swordfish and marlin WGs also believe their catch data from the last assessment are the currently best available catch data and should be presented as the ISC catch tables. Some recently received data from Korea, Chinese Taipei and Mexico have not been incorporated by the WG and thus are not reflected in these catch tables.

For Pacific bluefin tuna the situation is more complicated. A graph was presented which illustrated the differences between the Category I catch in the ISC (STATWG) database and the Pacific Bluefin Tuna WG catches from their last meeting (Figure 1). One of the differences is that Chinese Taipei's reported catches to the WG are different. Chinese Taipei responded that they have identified some further changes that they would like to make to the WG database having to do with the removal of southern bluefin caught in the Indian Ocean from the catch table. After these changes are made, Chinese Taipei would allow these catch data to become part of the ISC main database.

Some other differences between the two databases' catch data derive from the Japanese data. The Pacific Bluefin Tuna WG Chair explained the following reasons contribute to the differences:

- For purse seine, differences are due to low logbook coverage on the small pelagic fish purse seine and the necessity of making a scientific estimate for assessment purposes versus using the low reported official catch.
- For pole and line and longline fisheries there are differences in estimation methodologies between the two databases. For longlines the conversion factors to convert between number and weight are different. For pole and line fisheries the issue is related to species identification.
- Some differences arise because of problems with identifying small Pacific bluefin tuna because they are combined with other tuna species in Japanese national statistics. The amounts can be quite significant. Within the Pacific bluefin tuna WG a scientific estimate was made to separate out these small Pacific bluefin tuna. The logbook issue is being addressed so this problem is expected to gradually disappear.
- Finally, in the Pacific Bluefin Tuna WG database Japan's reported catch included drift nets but in the ISC reporting drift nets were separated.

In response to a question Y. Takeuchi clarified that only the WG catch data were used in the assessment, therefore the differences between the WG and ISC database catches do not affect the outcome of the stock assessment. A related issue for the Pacific Bluefin Tuna WG is that they consider a formal rule on classifying data received prior to the definition of Categories I-III is necessary. This issue is described in the most recent Pacific bluefin tuna meeting report.

Korea's Pacific bluefin tuna data may also show discrepancies. Korea's data correspondent is checking the catch data with a view toward attempting to have a longer time series than 2002.

## **5.0 REVIEW OF DATA REPORTING PROTOCOL (AGENDA ITEM 8)**

H. Yamada presented **ISC/07/STATWG/04**. This document presents a review of progress with the ISC website. Changes were made under the website headings of "Structure" and "Past Meetings". Under structure, the Albacore Working Group was added as requested by the Plenary. Under past meetings, a list of working documents from the 6<sup>th</sup> Plenary meeting was added and linked to the underlying document files. The

Albacore Working Group has two reports and associated lists of working documents linked to the original documents for their Nov-Dec 2005 and Nov-Dec 2006 meetings. These are both shown on the website, but last year's report is not yet loaded because it is awaiting authorization at this Plenary, so only the list of documents is presented (not the report or the working documents themselves). Once the Plenary authorizes the report from last year's meeting, the plan is to load the report onto the website and activate the links between the document list and the original documents.

The policy regarding loading working documents on the website was raised. H. Yamada replied that until now if the Plenary has not yet approved the report of the WG meeting, the documents are not available unless special permission is requested. It was clarified that in the past, it has been ISC's policy not to distribute the working documents. The appropriate procedure would be for the webmaster to archive all the working documents as a library and simply load the list of documents (not the documents themselves) on the public site. On the list of documents, the email address for the lead author should be provided so that if someone wants a copy of the document they are able to contact the lead author and request it. This will require that all original working documents currently posted on the ISC website be removed, and revised lists of documents (including document title, lead author's name and lead author's email address) be uploaded. Some participants considered that these procedures did not allow for transparency in ISC assessment. However, several issues related to subsequent publication of documents in scientific journals, permissions to release or cite the documents, timeframes for allowing editing of documents prior to release, and human resources to manage these issues were raised as reasons why it might be difficult to make all of the working documents available on line. The discussion concluded with the idea that it would be useful to work toward greater transparency in the future but that the current procedures should be retained for now.

Participants remarked that further development of the website should be made a priority. Since the website acts as the interface between the public and the ISC it should be easy to use, present a professional image, be responsive to users' needs. A new version of the website including a box for material posted by the Chairman was also suggested. It was noted that the current server configuration might not allow such a Chairmen's posting without going through the webmaster (due to firewall security), but all agreed that such restrictions should not be allowed to limit the ISC website development and if necessary a new server, without such restrictions, could be found.

Returning to the issue of the data reporting protocol which was discussed briefly in the previous section, H. Yamada added that there has recently been a test of the data protocol for uploading data. Comments have been received the response document is not yet complete.

The current ISC data correspondents were specified as follows:

- Canada: Max Stocker
- United States: Al Coan

- Chinese Taipei: Shyh-Jiun Wang and Fisheries Agency representative (TBD)
- Korea: Sun-Do Hwang
- China: Dai Xiaojie
- Japan: Harumi Yamada
- Mexico: Miguel Angel Cisneros Mata and Michel Dreyfus
- IATTC: Michael Hinton and Alejandro Pérez
- SPC: Tim Lawson.

## **6.0 REPORT FROM THE SPECIES WORKING GROUPS REGARDING AVAILABILITY, TIMELINESS AND PROBLEMS WITH DATA IN CONDUCTING THEIR WORK (AGENDA ITEM 9)**

The Chair of the Albacore Working Group reported that this group developed a data protocol for Categories I, II and III which also included timelines. This has been adopted as the ISC protocol but recently there have been problems in not adhering to timelines and protocols. This created problems for the assessment in 2006. Therefore it is urged that members adhere to the timelines specified in the protocols. Also, data must be verified before submission in order not to waste time re-running models with new or changed data. These points were strongly stressed.

The Chair of the Pacific Bluefin Tuna Working Group explained that their assessments are complicated because of the complex nature of the fisheries. Since there are about 10 different fisheries catching this species, the necessary data compilation is far beyond the data covered by the official database structure. The need for collaboration with other organizations, specifically with IATTC for data in the EPO (already underway), but also with SPC/WCPFC to compile catch data in the South Pacific, was emphasized. Contact with SPC was authorized by last year's Plenary and partial data from New Zealand has been made available, however, SPC data have still not been received. Discrepancies between catch tables in the Pacific Bluefin Tuna Working Group and catch tables for Plenary (STATWG database) were noted.

G. DiNardo spoke on behalf of the Marlin Working Group and Swordfish Working Group. He stated that the STATWG catch tables are different those used in the marlin and swordfish WGs because the WGs have made efforts to collect historical data from some countries, thereby replacing some of the zeros in the STATWG's database. The marlin WG data only extends through 2004 (with some provisional data for 2005) because this is the timeframe that was used in the assessment. Until now work has focused on striped marlin but in the future, database structures should be developed to hold Category I-III data for all billfish (e.g. blue marlin, black marlin and sailfish) in response to some countries beginning to submit required data for these species and the WG's interest in monitoring these species. K. Yokawa provided some additional comments regarding billfishes. The next assessment will be a swordfish assessment in 2009. The Marlin WG will also lead a pan-Pacific blue marlin stock assessment and between now and the next Plenary a steering committee will be established and will begin coordination with other interested parties. The timing of the blue marlin assessment will be decided in the first meeting of the steering committee, but it is likely to be in 2009 or

2010. It was also noted that during the swordfish and marlin working group meetings a vote was taken regarding whether the working groups should be combined into a single billfish working group. This was agreed by consensus and a Chairman will be appointed at this Plenary.

G. DiNardo also presented remarks on behalf of the Bycatch WG. This working group met in May and now requests that the STATWG begin compiling data on bycatch species. It was considered by the participants that the Bycatch WG should be asked to prioritize species of interest. Category I data should be compiled at a minimum; data for Categories II-III may be problematic given the current lack of observer programs and other sources. Data quality and coverage for bycatch species may be poor but the Bycatch WG will have to deal with these issues just as every other WG does. It was noted that the Plenary has already specified turtles, seabirds and sharks as bycatch species and thus these groups can serve as a starting point.

R. Conser presented some remarks regarding the database on behalf of A. Coan who could not attend. Table 1 for the ALB WG no longer matches what is in the ISC main database and this is probably true for other species as well. This situation results in discrepancies when the public accesses the database, and damages the credibility of the ISC, so it should be remedied. It was suggested that a database application be developed so that the STATWG provides data to the WG at the start of each meeting and then re-absorbs the data output from the WG at the end of the meeting. A person with responsibility for the database should attend all the WG meetings. There is also a need for quick access to Category II and III data plots, for example when deciding on stock separation, area delineation, etc., therefore it would be very useful to have simple plotting functions built into the database to save time for the WGs. Changes to the data format for better standardization were also suggested including deleting quarter information, and switching to the commonly used unit of metric tons rather than 0.1 mt. Also, protocols are required for handling observer data that don't currently fit into Categories I-III, for example, observer and logbook data on discards, bycatch species, etc.

## **7.0 FUTURE WORK PLAN (AGENDA ITEM 10)**

### **7.1 Work Plan for the ISC Database**

Questions were raised regarding the work plan for the ISC database: is the database going to be improved in its current form or moved to a completely new platform? It was clarified that the ftp site data has moved to an Access-based system but there is no formal plan for database development yet and this would require consultation with the group to determine how much work will be required. It was recommended that an overall plan for completing the data system be established including specific dates for:

- when all data will be migrated to the new system and checked for accuracy;
- when the catch table development will be completed;
- when plotting capabilities will be completed;
- when a structure for holding discard data from logbook and observers will be completed; and

- when the capability to store other species' data will be completed.

It was also suggested that data quality manager be appointed so there can be immediate feedback to the data correspondents to help to solve problems quickly and while they are still fresh. It was noted that a new plan for database improvement should build upon a previous planning exercise that was conducted.

## 7.2 Review of the 2006 Work Plan and Newly Identified Recommendations

The following list specifies items from the 2006 Work Plan which are not yet complete:

Item 1: Investigate differences between ISC, IATTC, and WCPFC databases. (Japan committed to do this prior to the next meeting of the STATWG). Action: STATWG/Data administrator. Priority: High.

Item 2: Develop procedures of the collection and storage of metadata. (Work has begun but is not yet complete). Action: STATWG/Data administrator. Priority: High.

Item 3: Identify data coordinators from each WG and employ a permanent database administrator. (It was considered that each WG Chair is the de facto coordinator. A permanent database administrator needs to be employed). Action: WG Chairs and STATWG/Data administrator. Priority: High.

Item 4: Japan to submit historical data through 2004 by March 2006. (This milestone was not met; Japan agreed to provide a new milestone). Action: Japan data correspondent. Priority: High.

Item 5: Data correspondents should attend STATWG and WG meetings. (It was noted that this is ideal but not always practical). Action: Data correspondents. Priority: Medium.

Item 6. ISC database should archive input, output, metadata, software for stock assessments and working documents. (Stock assessment-related data has not been archived in the ISC database. Concerns were raised about the practicality of this given that the archive structure for the files from each WG could be quite different. Nevertheless the need to archive and document all stock assessment data was agreed to be essential, therefore it was agreed that archival remain the responsibility of the WGs for the time being. Action: STATWG/Data Administrator and WGs. Priority: Medium.

Item 7. Category II and III data should be submitted directly to the STATWG. (Currently these data are submitted to the WGs which can then provide them to the STATWG). Action: STATWG/Data Administrator and data correspondents. Priority: Low.

Item 8. Clarification of Korea purse seine Pacific bluefin tuna catches. (This is underway but not yet complete). Action: STATWG/Data Administrator and data correspondents. Priority: High.

Item 9: Develop procedures for communicating WG data changes to the STATWG, including a one-page written report describing progress and any changes in historical data each time data are submitted. (The written report is a new addition which should cover any changes resulting from WGs in the past year). Action: STATWG/Data Administrator and data correspondents. Priority: High.

The following are newly identified recommendations:

Item 10. STATWG to begin compiling data on bycatch species. (It was noted that this would be difficult to implement immediately, refer to discussion under Agenda Item 9.) Action: STATWG/Data Administrator and data correspondents. Priority: Medium.

Item 11. Add protocols for handling other types of data including observer and logbook data on discards and bycatch species. Action: STATWG/Data Administrator. Priority: Medium.

Item 12. Add information on data coverage (or raising) in either metadata or in the form of a new data code. Action: STATWG/Data Administrator. Priority: Medium.

Item 13. Implement current ISC policy with regard to not posting working documents, only a list of working documents with their titles and the email addresses of the lead authors. Action: STATWG/Data Administrator. In progress.

Item 14. Further develop the ISC website including a box for Chairman's comments. Action: STATWG/Data Administrator. Priority: High.

Item 15. Develop data structures to hold Category I-III data for all billfish (e.g. blue marlin, black marlin, sailfish). Action: STATWG/Data Administrator. Priority: High.

Item 16. Provide a procedure whereby the ISC data manager feeds data in the WG assessments, attends the assessment workshops, records any changes and re-absorbs the data at the close of the workshop. Action: STATWG/Data Administrator and WG Chairs. Priority: Low.

Item 17. Streamline and standardize data format by removing quarter information and converting to units of metric tonnes (rather than 0.1 mt). Action: STATWG/Data Administrator. Priority: Low.

Item 18. Appoint a full-time database administrator/data quality manager to address data issues while they are still fresh. Action: STATWG/Data Administrator. Priority: Low.

## **8.0 CONCLUSION AND RECOMMENDATIONS (AGENDA ITEM 11)**

The target dates for completion of the Work Plan items listed in 7.1 is set as follows :

- Data migration to the new system and checked for accuracy - January 2008

- Completion of catch table development - May 2008
- Plotting capabilities development - December 2008
- Development of a structure for holding discard data from logbook and observers – May 2008
- Capability to store other species' data - May 2008

Items 7.2 should be addressed by July 2008. However, it would be difficult to implement all items given the amount of work required. Many of these items require further consultation among the WG chairs and data correspondents. Active participation of these parties is essential in completing these tasks in a timely manner.

## **9.0 ADMINISTRATIVE MATTERS (AGENDA ITEM 12)**

The next meeting will be convened in conjunction with the next Plenary which may be held in Japan. The next Plenary is set for July 2008. Chinese Taipei mentioned that it might be possible to hold the 2008 Plenary there but it is too soon for them to commit to it formally at this time.

A handout showing the development of a schedule for intersessional meetings was tabled. The reason for this table is to show the existing commitments of the various working groups, so that the Plenary will be realistic in their requests for any additional activities. All WGs have reviewed this handout and provided input. The Bycatch WG will meet in April 2008 and then again in conjunction with the Plenary next year (July 2008). When drafting the schedule, the WGs that meet with the Plenary will rotate so that different WGs will meet with Plenary each time (except the STATWG which will always meet in conjunction with the Plenary). The table was also developed with the guideline that there will be no more than 2 full stock assessments in any one year so this would mean each stock assessed every 2-3 years. There might be a stock condition review (e.g. CPUE update) in the interim, but even if not, the WGs were urged to spend the time wisely by developing data, models and reference points in the interim.

Another issue was raised regarding a recent request for data exchange under the ISC-WCPFC MOU. WCPFC is requesting thoughts on the process for routine exchange of fishery data for the entire Northern Pacific to minimize duplication in data collection and to serve as a common source for stock assessment and scientific fishery monitoring. Concerns were raised by the group regarding confidentiality of the data currently held by ISC, particularly fine-scale data such as set-by-set. The WG discussed the feasibility of the WCPFC conducting assessments for the North Pacific stocks for which it may not have complete data and full participation of scientists knowledgeable about the stocks. The group notes that WCPFC scientists have been invited to participate in ISC stock assessment working groups and this should be continued. A suggestion was made to defer to the relationship between the Northern Committee and the ISC but this was considered to be impractical given that the Northern Committee is a subsidiary body of the WCPFC. According to the current ISC Rules of Procedures, only Category I data is public domain. Therefore provision of Category II and III data, as well as set-by-set data, may not be possible. However, ISC will seek opportunities for data sharing on a species-

by-species and project-by-project basis. It was noted that any such collaboration with WCPFC should be undertaken by members through the ISC working groups rather than individually.

#### **10.0 ELECTION OF THE STATWG CHAIR**

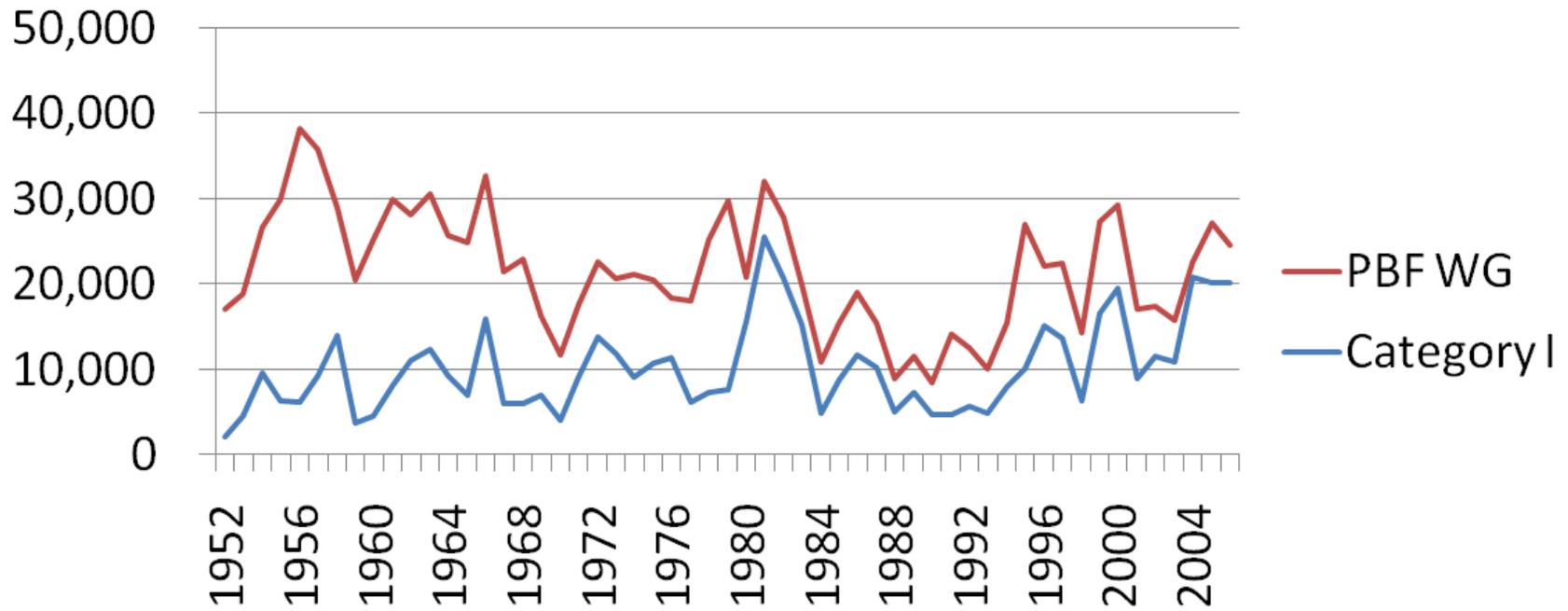
Voting was conducted in accordance with the procedures in the ISC rules of procedures. Candidates included all delegates of members that were present. Secret ballots were cast by Canada, Chinese Taipei, the U.S., Mexico, Japan and Korea (one per member). By simple majority N. Miyabe was elected as the Chair for the next three years, July 2007-2010.

#### **11.0 ADOPTION OF THE REPORT (AGENDA ITEM 13)**

After careful review of the document, the report was adopted.

#### **12.0 ADJOURNMENT (AGENDA ITEM 14)**

The Chair thanked all participants for their efforts. The meeting was adjourned at 13:45 on 24 July 2007.



**Figure 1.** Comparison of annual catches of Pacific bluefin tuna in the North Pacific, 1952-2006, based on Category I catch data in the ISC main database and Pacific Bluefin Tuna Working Group catch data as of July 2007.

*Attachment 1*

**List of Participants**

**Canada**

Max Stocker  
Fisheries and Oceans Canada, Pacific Biological Station  
3190 Hammond Bay Road, Nanaimo, B.C. Canada V9T 6N7  
1-250-758-0275, 1-250-756-7053 (fax)  
[StockerM@pac.dfo-mpo.gc.ca](mailto:StockerM@pac.dfo-mpo.gc.ca)

**Chinese-Taipei**

Chung-Hai Kwoh  
Fisheries Agency  
Council of Agriculture  
2 Chaochow Street  
Taipei, Taiwan  
886-2-3343-6114, 886-2-3343-6268 (fax)  
[chunghai@msl.f.a.gov.tw](mailto:chunghai@msl.f.a.gov.tw)

Shyh-Jiun Wang  
Overseas Fisheries Development Council  
Republic of China  
19, Ln 113, Sec 4, Roosevelt Road  
Taipei, Taiwan  
886-2-2738-1522 ext. 116, 886-2-2738-4329 (fax)  
[shyhjun@ofdc.org.tw](mailto:shyhjun@ofdc.org.tw)

Ren-Fen Wu  
Overseas Fisheries Development Council  
Republic of China  
19, Ln 113, Sec 4, Roosevelt Road  
Taipei, Taiwan  
886-2-2738-1522 ext. 118, 886-2-2738-4329 (fax)  
[fan@odfc.org.tw](mailto:fan@odfc.org.tw)

Chi-Lu Sun  
Institute of Oceanography  
National Taiwan University  
1 Section 4, Roosevelt Road  
Taipei, Taiwan 106  
Email: 886-2-23629842 (tel & fax)  
[chilu@ntu.edu.tw](mailto:chilu@ntu.edu.tw)

## **IATTC**

Michael G. Hinton  
Inter-American Tropical Tuna Commission  
8604 La Jolla Shores Drive  
La Jolla, CA 92307-1508 USA  
1-858-546-7033, 858-546-7133 (fax)  
[mhinton@iattc.org](mailto:mhinton@iattc.org)

## **Japan**

Hitoshi Honda  
National Research Institute of Far Seas Fisheries  
5-7-1 Orido, Shimizu, Shizuoka, Japan, 424-8633  
81-543-36-6034, 81-543-35-9642 (fax)  
[hhonda@affrc.go.jp](mailto:hhonda@affrc.go.jp)

Makoto Miyake  
Scientific Advisor, Japan Tuna  
3-3-4 Shimorenjaku, Mitaka-shi  
Tokyo, Japan 181-0013  
+81 422-46-3917  
[p.m.miyake@gamma.ocn.ne.jp](mailto:p.m.miyake@gamma.ocn.ne.jp)

Naozumi Miyabe  
National Research Institute of Far Seas Fisheries  
5-7-1 Orido, Shimizu, Shizuoka, Japan, 424-8633  
81-543-36-6014, 81-543-35-9642 (fax)  
[miyabe@fra.affrc.go.jp](mailto:miyabe@fra.affrc.go.jp)

Yukio Takeuchi  
National Research Institute of Far Seas Fisheries  
5-7-1 Orido, Shimizu, Shizuoka, Japan, 424-8633  
81-543-36-6039, 81-543-35-9642 (fax)  
[yukiot@fra.affrc.go.jp](mailto:yukiot@fra.affrc.go.jp)

Koji Uosaki  
National Research Institute of Far Seas Fisheries  
5-7-1 Orido, Shimizu, Shizuoka, Japan, 424-8633  
81-543-36-6044, 81-543-35-9642 (fax)  
[uosaki@affrc.go.jp](mailto:uosaki@affrc.go.jp)

Harumi Yamada  
National Research Institute of Far Seas Fisheries  
5-7-1 Orido, Shimizu, Shizuoka, Japan, 424-8633  
81-543-36-6034, 81-543-35-9642 (fax)  
[hyamada@fra.affrc.go.jp](mailto:hyamada@fra.affrc.go.jp)

Kotaro Yokawa  
National Research Institute of Far Seas Fisheries  
5-7-1 Orido, Shimizu, Shizuoka, Japan, 424-8633  
81-543-36-6035, 81-543-35-9642 (fax)  
[yokawa@fra.affrc.go.jp](mailto:yokawa@fra.affrc.go.jp)

## **Korea**

Doo-Hae An  
National Fisheries Research and Development Institute  
408-1 Sirang-ri, Gijang-eup, Gijang-gun  
Busan, 619-705 Korea  
82-51-720-2320, 82-51-720-2337 (fax)  
[dhan@nfrdi.re.kr](mailto:dhan@nfrdi.re.kr)

Sun-Do Hwang  
National Fisheries Research and Development Institute  
408-1 Sirang-ri, Gijang-eup, Gijang-gun  
Busan, 619-705 Korea  
82-51-720-2334, 82-51-720-2337 (fax)  
[sdhwang@nfrdi.re.kr](mailto:sdhwang@nfrdi.re.kr)

Seon-Jae Hwang  
National Fisheries Research and Development Institute  
408-1 Sirang-ri, Gijang-eup, Gijang-gun  
Busan, 619-705 Korea  
82-51-720-2325, 82-51-720-2337 (fax)  
[hwangseonjae@hanmail.net](mailto:hwangseonjae@hanmail.net)

Dae-Yeon Moon  
National Fisheries Research and Development Institute  
408-1 Sirang-ri, Gijang-eup, Gijang-gun  
Busan, 619-705 Korea  
82-51-720-2310, 82-51-720-2337 (fax)  
[dymoon@nfrdi.re.kr](mailto:dymoon@nfrdi.re.kr)

Jeong-Seok Park  
Ministry of Maritime Affairs & Fisheries  
#140-2, Bye-dong, Jongno-gu, Seoul, 110-793, Korea  
82-2-3674-6994, 82-2-3674-6996 (fax)  
[jspark@momaf.go.kr](mailto:jspark@momaf.go.kr)

## **Mexico**

Michel Dreyfus  
Instituto Nacional de la Pesca (INP)  
Centro Regional de Investigaciones Pesqueras de Ensenada (CRIP-Ensenada)  
KM 975 Carretera Tijuana-Ensenada  
Ensenada, Baja California, Mexico  
[dreyfus@cicese.mx](mailto:dreyfus@cicese.mx)

Luis Vicente González Ania  
Instituto Nacional de la Pesca (INP)  
Pitagoras 1320 Col. Santa Cruz Atoyac  
03310 Mexico, D.F.  
Mexico  
[lgonzalez\\_inp@yahoo.com.mx](mailto:lgonzalez_inp@yahoo.com.mx)

## **United States**

Shelley Clarke  
Imperial College London  
1675 Sasama-kami  
Kawane-cho, Shizuoka, Japan 428-0211  
81-547-54-0275 (tel and fax)  
[shelley.clarke@imperial.ac.uk](mailto:shelley.clarke@imperial.ac.uk)

Ray Conser  
NOAA/NMFS SWFSC  
8604 La Jolla Shores Dr.  
La Jolla, CA 92037 USA  
1-858-546-5688, 858-546-7003 (fax)  
[rconser@ucsd.edu](mailto:rconser@ucsd.edu)

Gerard DiNardo  
NOAA/NMFS PIFSC  
2570 Dole Street  
Honolulu, HI 96822-2396 USA  
1-808-983-5397, 1-808-983-2902 (fax)  
[Gerard.Dinardo@noaa.gov](mailto:Gerard.Dinardo@noaa.gov)

Kevin Piner  
NOAA/NMFS SWFSC  
8604 La Jolla Shores Dr.  
La Jolla, CA 92037 USA  
1-858-546-5613, 858-546-7003 (fax)  
[Kevin.Piner@noaa.gov](mailto:Kevin.Piner@noaa.gov)

Gary Sakagawa  
NOAA/NMFS SWFSC  
8604 La Jolla Shores Dr.  
La Jolla, CA 92037 USA  
1-858-546-7177  
[Gary.Sakagawa@noaa.gov](mailto:Gary.Sakagawa@noaa.gov)

**Agenda**

International Scientific Committee for Tunas and Tuna-like Species in the North Pacific

6th Statistics Working Group Meeting

*22-24 July 2007*

Busan, Korea

1. Opening of STATWG meeting
2. Appointment of chair and rapporteurs
3. Adoption of Agenda
4. Tabling of Documents
5. Review of data Requirements for Stock Assessment and Fishery Monitoring
6. Review of Data Collected by Participants
7. Updating Data Inventory and Depository
8. Review of Data Reporting Protocol
9. Report from the Species Working Groups regarding availability, timeliness and problems with data in conducting their work
10. Future Work Plan
11. Conclusion and Recommendations
12. Administrative matters
13. Election of the STATWG Chair
14. Adoption of Report
15. Adjournment

**List of Documents**

- ISC/07/STATWG/01 Submission of Japanese Fishery Statistics for the North Pacific Ocean to the International Scientific Committee 2005 and 2006 (*Harumi Yamada, Hiroaki Okamoto and Koji Uosaki, National Research Institute of Far Seas Fisheries*)
- ISC/07/STATWG/02 Data Inventory in 2007 (*Clearing House Staff, National Research Institute of Far Seas Fisheries*)
- ISC/07/STATWG/03 ISC Data Catalogue: Category I, Category II, Category III (*Naozumi Miyabe and Harumi Yamada, National Research Institute of Far Seas Fisheries*)
- ISC/07/STATWG/04 Review of ISC Web (*ISC Webmaster, National Research Institute for Far Sea Fisheries*)