Report of the Plenary Session of the Third Meeting of the Interim Scientific Committee on Tunas and Tuna-like Species in the North Pacific (ISC)

Nagasaki, Japan
Plenary Session, January 28-30, 2002

30 January 2002

1. Opening

Mr. K. Kurosawa, Fisheries Agency of Japan, opened the third meeting of the ISC Plenary and expressed his appreciation to the participants for making a long trip to Nagasaki.

2. Opening Statement

Mr. S. Kawamoto, the Deputy Director General of the Fishery Agency of Japan, welcomed the participants on behalf of his Government. He thanked Russia for its first time participation in the ISC meeting, and hoped for continuing contributions to the expansion of scientific knowledge of the stocks in question in the North Pacific. He noted that the ISC was established in 1995 and the first plenary meeting was held in 1996 in Tokyo followed by a second meeting in 1999 in Honolulu, Hawaii. He emphasized the importance of the deliberations that have been made by the various scientists, including his national scientists, on each of the Working Groups. Finally, Mr. Kawamoto looked forward to having a good outcome of the meeting by the active and thorough participation during the three-day meeting leading to the sustainable and rational use of tuna and tuna-like species stocks in the North Pacific.

3. Selection of Chairman and Rapporteurs

Following the past procedure, Dr. Kiyoshi Wakabayashi, the Director of the National Research Institute of Far Seas, was nominated as the Chairperson and was agreed to by the participants. In addition, rapporteurs were appointed from Japan (K. Kurosawa, N. Miyabe and M. Ogura) and from USA (R. Skillman and K. Bigelow).

More than 60 participants were presented from Chinese Taipei, Japan, Korea, Russia and USA as well as representatives from international organizations of FAO, IATTC and SPC. Each Delegation introduced themselves. Chinese Taipei and Russia delivered their opening statements (Attachments 1 and 2).

4. Adoption of Agenda

The Chair introduced the draft Agenda and solicited any comments or modifications. The delegate of the U.S. proposed to have a section to welcome new participants such as Russia. He also solicited a guidance of the Chair on what would be discussed under agenda 8 (Appropriate Resource Survey and Research System in North Pacific) since this agenda was new. The Chair and other participants agreed with the first proposal. The delegate of Japan responded to the second point by explaining that any long-term or broad based topics, which are worth noting, can be discussed.

The delegate of Russia (S. Leontiev) asked why skipjack was not included in the discussion of the ISC. It was pointed out that there was simply no special interest among the participants on that species when the current ISC was set up. The Chair suggested that the discussion on how to handle this species be discussed under the agenda item 11 (Other Matters), and this was accepted.

The Delegate of Chinese Taipei proposed to reverse the order of Agenda item 9 and 10. This proposal was accepted by all participants. The finalized agenda is given in Appendix 1.

Agenda items 5, 6 and 7 provide a summary of presentations. The list of the working papers from the 3rd Plenary of the ISC (ISC3/PLEN/number) is given in Appendix 2, and the list of participants is attached in Appendix 3.

5. Delegation Reports of Fisheries regarding Tuna and Tuna-like Species

Japan (ISC3/PLEN/1)

Japanese tuna fisheries consist of three major fisheries, i.e., longline, pure seine, pole and line, and other miscellaneous fisheries like troll, drift-net, set-net fisheries. Total landing of tunas, skipjack, swordfish and billfishes in the Pacific Ocean in 1999 was 535,139 MT. Three major fisheries occupy more than 95 % of the total landing in the recent years.

Longline fisheries are classified into three categories, i.e., coastal (vessels smaller than 20 GRT), offshore (20 - 120 GRT) and distant water (larger than 120 GRT) boats. Total catch of coastal longline fishery is more than 41,000 MT in 1999. Albacore catch takes almost half of the total catch and has increased remarkably since 1993. Total catch of offshore and distant water longline fisheries was 96,930 MT in 2000. Bigeye has been the dominant species and the catch in 2000 was 41,000 MT. There are two different types of purse seiners that target tunas in Japan. The group seiner operates in the temperate waters and is consisting of net purse seiner (100-200 GRT), searching vessel and carrier vessels. The single purse seiner (349-500 GRT) is fishing mainly in the tropical waters, seasonally moving into the temperate water fishing ground. Total catch of purse seine fishery was 211,000 MT of fish in 1999. Skipjack dominates in the catch followed by yellowfin and bluefin. The pole and line fishery is composed of three different categories, i.e., coastal (less than 20 GRT), offshore (20-120 GRT) and distant water (lager than 120 GRT) boats. Catch by the coastal pole and line fishery is 10,000 or less annually. Total catch of offshore and distant water pole and line fisheries was 155,000 MT in 2000. Skipjack and albacore catches were 130,000 MT and 21,000 MT, respectively.

Several researches on tunas of aging, reproductive biology, tagging with conventional and electronic tags, sonic tracking, and stock assessment have been carried out.

Korea (ISC3/PLEN/4)

The Pacific bluefin tuna (PBT) are mainly caught by purse seine fishing and some minor catches are made by the trawl fisheries in the Korean waters as a by-catch. The PBT caught by Korean fisheries in the Korean waters was mainly consists of small size of fish less than 100cm fork length

In 2001, 33 purse seine and 4 trawl boats operated in the Korean waters. Annual catch of PBT for 2000 and 2001 were 794 MT and 1,005 MT, respectively, with catches in 2001 being 26.6% higher than 2000. The increase of catches in 2001 was mainly attributed to the catches of purse seine fishery and followed by the catches of trawl fishery.

Monthly catch rates showed the highest values in April 2001 and in March 2000, respectively and generally recorded high values with some annual fluctuation from January to July.

Fishing grounds for PBT were formed in the South of Korea near the Cheju Island and Tsushima

Island, and Yellow Sea in 2001, whereas they formed in the South Sea of Korea only in 2000.

In 2001, the catches of PBT were recorded in high amounts from February to April and fishing grounds were formed between Cheju Island and Tsushima Islands, and south of Cheju Island. In October and November, the PBT were caught in the Yellow Sea, which was not recorded in previous years.

Chinese Taipei (ISC3/PLEN/3)

Three types of tuna fisheries are currently operating in the North Pacific region, the distant water longline (DWLL), distant water purse seine (DWPS) and the offshore longline (OSLL) fisheries. Total number of DWLL vessels operating in the North Pacific region in 2000 was estimated to be about 10-14. The most dominant species caught was albacore accounting for about 84% of the total catch in recent years, while bigeye and yellowfin tunas together accounted for another 10%. The other species comprised only a minor percentage of the total catch. Effort exerted in the North Pacific region by this fleet was low before 1994, but increased significantly thereafter. Most of these efforts were located in the central and mid- to high latitudes (20-45°N) of the North Pacific Ocean. There are 41 purse seine vessels currently operating in the Pacific region. The dominant species caught by this fleet was skipjack accounting for about 79% of the total catch. The yellowfin tuna was the 2nd most important species accounted for another 20%, and the bigeye tuna only accounted for 1% of the total catch. The major fishing ground of DWPS fishery varied dynamically during recent years. In 1997, the fishing ground extended to the east of the 160°W, which might due possibly to the impact of El Nino. After 1997, fishing ground started to move westward and was mainly located in the western and central part of the tropical Pacific (135-175°E, 8°N-8°S). Catches on two types of OSLL vessels including those based at domestic ports and those at foreign ports, were reported. The yellowfin tuna was the most dominant species landed in domestic ports of Taiwan, while the bigeye and yellowfin tunas both dominated in catches unloaded in foreign bases. In addition, fishery monitoring and statistical data collection system, as well as the observer program and researches conducted by scientists in Taiwan were also discussed.

Discussion: In response to a question regarding the estimates of bigeye tuna in the purse seine fishery, it was clarified that bigeye catch is calculated from sales records.

Russia (ISC3/PLEN/5)

National purse-seine fisheries for tunas in the Western Pacific was stopped in 1992. From 1986-1992, Russian purse-seine fisheries were basically conducted in the tropical Pacific. A total of up to 10 specially-equipped tuna purse-seine vessels participated in the fishery. The major fishing species were yellowfin and skipjack.

Nevertheless, Russian research laboratories maintain continuous monitoring of the distribution and abundance of the tunas pertaining to the EEZ of Russia. On the whole, the following species are covered by our research: skipjack, bluefin, yellowfin and albacore. During their annual feeding migrations these tuna species penetrate from the subtropical waters to the high seas of Primorie, South Kurils and south-east Sakhalin and leave those regions in November.

Bluefin tuna. The optimum temperature range of the formation of its fishing concentrations is 18-20°C.

This species occurs sporadically in driftnet fisheries bycatch off Primorie, South Kuril Island and south-east Sakhalin. Their weight is in the range of 40 to 120 kg. In addition, this species occurs in long-line and trap net catches on the Okhotsk side of the South Kurils including the south-eastern coast of Sakhalin.

Skipjack. The best concentrations of skipjack in Russian waters have been recorded around the South Kuril Islands. However, no target fishery for the species is conducted. A considerable by-catch of small and mid-sized skipjack (up to 50%) is recorded in August-November in Bartram squid fisheries. Those individuals are 35-65cm long, 1-3 years weighing 1.5 to 4.5 kgs. The proportion of age-groups may vary interannually and seasonally.

It should be pointed out that some Russian shipowners intend to develop longlining and purse-seining of tunas within and beyond the Russian EEZ in the very near future.

USA (ISC3/PLEN/2)

U.S. responsibilities under the agreement were assigned to the Southwest Fisheries Science Center (SWFSC) of the National Marine Fisheries Service (NMFS). The responsibilities include conducting research on the species covered by the agreement and promoting collaborative research with colleagues party to the agreement. Since 1995, there has been progress made with these objectives and achievements have been reported by SWFSC scientists at past meetings of the ISC and ISC Working Groups.

Since the second ISC meeting in 1999, the SWFSC has made progress in enhancing activities for collecting and compiling fishery statistics and in expanding research on Highly Migratory Species (HMS) in the North Pacific. Statistics collected on U.S. fisheries for HMS include number of vessels and gear type, catches, catch-and-effort, sizes of fish caught, economic information and others. The statistics provide information for assessing the condition of the stocks and for evaluating issues affecting U.S. fisheries. Updated catch statistics since the second ISC meeting, for instance, show a 65% decline of the total U.S. catch of HMS in the North Pacific (north of the equator) fisheries. The total catch of combined species decreased steadily from 92,710 t in 1997 to 32,070 t in 2000. Overall catches of several tuna species declined, primarily due to reductions in the U.S. purse seine catch. These declines are of concern to fishermen and others. Catches of some other species, such as swordfish, increased during the period. In this report, factors contributing to these changes as well as recent developments in U.S. fisheries for HMS in the North Pacific Ocean are discussed in detail in the ISC3/2002/02.

Research conducted by the SWFSC is focused primarily to support U.S. requirements of domestic fishery management plans and international agreements. The research is conducted by laboratories in Honolulu, Hawaii and La Jolla, California. Studies range from stock assessment to fishery oceanography and, when possible, are carried out in collaboration with scientists in other government agencies and at universities, both in the U.S. and abroad. Results of some of the studies are contained in working documents submitted to the third meeting of ISC and a list is provided in the “List of Documents” section of ISC3/2002/02.

FAO

Dr. Jacek Majkowski of the Food and Agriculture Organization (FAO) of the United Nations outlined activities of that organization that may be of relevance to ISC. He thanked the institutions represented at the meeting and their staff for their collaboration with FAO.

Dr. Majkowski indicated a significant progress achieved with the development of FAO's Fisheries Global Information System (FIGIS), which is financed by Japan. He mentioned: (i) pre-agreements of cooperation of FAO with some tuna fisheries bodies and SPC regarding this development, (ii) the transfer of FAO's Atlas of Tuna and Billfish Catches to FIGIS, (iii) the inclusion, to FIGIS, of overviews on historical developments of tuna fisheries, tuna fishing method, and tuna biological characteristics and (iv) the presentation of two sets of tuna nominal catches from tuna fishery bodies and SPC and directory from fishing nations.

Dr. Majkowski mentioned that at the last meeting of FAO's Committee on Fisheries, some countries requested for FAO's involvement in addressing the tuna fishing capacity in relation to tuna resources and socio-economic factors. In response, an interdisciplinary project has been proposed to address the issue. The objective of the project would be to provide technical information for and to identify, consider and resolve technical problems associated with the management of tuna fishing capacity on the global scale. The project would consist of substantial technical work preparatory to the Expert Consultation on Management of Tuna Fishing Capacity and the actual Consultation.

Dr. Majkowski pointed out that the outcome of the Expert Consultation on Implications of Precautionary Approach to Tuna Fisheries Management has been published and distributed. He described also outcomes of the FAO Council, FAO's Committee on Fisheries and FAO's Meeting of Regional Fishery Bodies and their relevance to tuna fisheries. Concluding his statement, Dr Majkowski sought comments and/or suggestions for FAO's activities of assistance to ISC.

General Discussion: Unconfirmed reports of annual catches of 20,000-30,000 MT in recent years in Vietnam may indicate the development of a substantial tuna longline fishery. In response to a query regarding substantiation of this development using Japan import statistics, a preliminary estimate of annual imports (1997-2000) from Vietnam was approximately 2,000 MT of processed tuna (fresh yellowfin and bigeye).

IATTC (ISC3/PLEN/6)

Fishing Year Summary

Surface gear fisheries, principally purse seine vessels, operating in the eastern Pacific Ocean (east of 150 degrees west longitude) landed a record 390,000 MT of yellowfin, and as well an additional 140,000 MT of skipjack and 40,000 MT of bigeye, tuna. About 60 percent of the fleet carrying capacity (~ 170,000 MT) was at sea throughout the year. A review of fisheries stock assessments and management actions taken by the IATTC was presented (either in the plenary or in Working Groups) and copies of documents were made available for ISC participants.

SPC

The Secretariat of the Pacific Community (SPC) conducts data collection and research on the tuna fisheries of the western and central Pacific Ocean (WCPO – the Pacific Ocean west of 150°W). The Main tuna stocks of interest to the SPC are skipjack, yellowfin, bigeye and South Pacific albacore tunas. Tuna catches in the WCPO have expanded greatly over the past 20 years. Recent annual catches have approached 2 million metric tonnes, making the WCPO easily the highest producer of the world's major tuna fishing regions.

SPC member countries have a major interest in the tuna stocks in the WCPO. A significant proportion of the total catch is taken in the EEZs of Pacific Island countries, mostly by foreign licensed fishing. However, many countries are also developing small-scale longline fisheries, which are becoming increasingly important to domestic economies.

On behalf of its member countries, the SPC has undertaken data collection and research on these tuna fisheries for more than 25 years. The work undertaken includes:

- Data collection and compilation, including log sheet catch and effort data collection, compilation of catch and effort data by area-time strata, and size and species composition data from port sampling and scientific observer program;
- Stock assessment and the development of appropriate stock assessment methods (principally the MULTIFAN-CL length-based, age-structured modeling approach);
- Research on large-scale environmental effects on tuna stocks and fisheries;
- Research on ecosystem impacts of tuna fisheries;
- Tuna biological research, including growth studies and tagging.

SPC's work has benefited greatly over the years from strong scientific collaboration with many countries, notably Japan, United States, Taiwan and Korea, under the auspices of the Standing Committee on Tuna and Billfish. It is to be hoped that such scientific collaboration can continue and even be enhanced in the future, despite the political difficulties associated with the negotiation of new international management arrangements.

Discussion: The Japanese delegation concurred with the SPC delegate regarding the need for collaborative scientific efforts. However, it was noted that political issues surrounding a resource management arrangement in the western and central Pacific Ocean have influenced some of these collaborative resource activities. The U.S. noted that developing management arrangements lie beyond the scientific intent of the ISC; therefore, political matters are external to the ISC process. Japan recognized that Japan will collaborate on scientific research with SPC outside of the MHLC arrangement.

6. Review and Assessment of Fish Species

1) Pacific Bluefin Tuna (ISC3/PLEN/7, ISC3/PLEN/8)

The fisheries, biological studies and stock status of Pacific bluefin tuna were reviewed, based on the

two reports of BFT-WG.

The group decided to use the current, accepted scientific name, which was confirmed to be *Thunnus orientalis* for bluefin tuna in the North Pacific. The group agreed to use Pacific bluefin tuna as the common name for *T. orientalis*. Pacific bluefin tuna is widely distributed in an area between 20N and 45N, and main fishing ground is distributed in the western North Pacific.

The annual catch of Pacific bluefin tuna range between 10,000 and 35,000 tons during 1952 – 2000. The annual catch in 2000 was 26,000 tons. Japan occupied about 70 % of total catch by various fisheries, i.e., purse seine, longline, troll, pole and line, set-net and others. Chinese-Taipei catches larger fish by longline fishery. Korea catches bluefin tuna by purse seine off south coast of Korea. In the eastern North Pacific, USA and Mexico catch bluefin tuna by purse seine fisheries. Sport fishing in USA also catches bluefin tuna.

According to the Japanese archival tagging surveys, it is likely that young bluefin tuna shows a seasonal clockwise migration pattern in the western North Pacific. There were some fish showing the trans-Pacific and the round trip migrations in the entire North Pacific. Larger fish in the spawning ground and the spawning season moved southward, based on the Japanese ultrasonic tracking and PSAT tagging surveys. There was one fish moved to southern hemisphere. Average rates of natural mortality of age 0-1 fish were estimated between 1.6 and 1.8, based on conventional tagging experiments. The analysis considered no spatial structure.

The Group reiterated its view that the results from VPA should not be used for management purposes at this stage. Given, the points outlined in the discussion of the VPA, there is a very large amount of uncertainty about the actual levels of spawning stock biomass, recruitment, and fishing mortality. Nevertheless, two results from the VPA appeared to be robust to the sensitivity tests and retrospective evaluations.

1. Spawning stock biomass declined from high levels in the 1960s to a historically low level in 1990, and has been increasing during the last decade.
2. Recruitment has been highly variable, but, in general, cohorts produced during the 1990s were larger than those produced during the 1980s.

The Group recommended the followings.

1. It is imperative that each nation strives to provide updated, accurate time series of annual catch estimates. It should be improved in accordance with issue discussed in the Statistics Working Group.
2. The Group recommended that the improvement of natural mortality estimation and the age and growth study should be promoted. The Group also strongly recommended that archival-type tagging be continued.
3. The Group noted that a substantial amount of work needs to be conducted in 2002-03 support of stock assessment of Pacific bluefin tuna (see Doc. 8). A Working Group on fully Integrated Statistical Stock Assessment Modeling for this species was formed and the group should start its activity as soon as possible.

2) Swordfish (ISC3/PLEN/9)

A meeting of the Swordfish Working Group (SWO-WG) of the Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean was convened at Merca Tsukimachi Hall in Nagasaki, Japan, during 25-26 January 2002. The purpose of the meeting was to review information concerning swordfish resources in the North Pacific, including fishery statistics, the status of swordfish stocks, and progress in biological and oceanographic research in support of stock assessment. Fourteen working papers and two informational papers were presented and discussed.

There was a review of research to reduce bycatch of sea turtles in Hawaii pelagic longline fishery for swordfish. In Hawaii, interactions between longline gear and sea turtles have been much more frequent in operations targeting swordfish than in operations deploying deeper-set gear for tunas. The rationale for this research is related to the critical need to develop longline fishing gear technologies and fishing strategies for reducing sea turtle capture rates throughout the Pacific. A proposed 3-year project using vessels in the Hawaii longline fishing industry will be conducted to test and evaluate changes in longline fishing gear and tactics to reduce bycatch of sea turtles.

Significant progress was reported toward improved stock assessments of swordfish in the North Pacific. Results from three studies suggest that swordfish stocks in the North Pacific are not overexploited. Preliminary results from a MULTIFAN-CL model suggested that the swordfish stock in the central and western North Pacific is not overexploited under current levels of fishing effort; this result is similar to findings at the last meeting of the ISC in 1999. Independent research on an index of swordfish abundance in the North Pacific, based on historical data from Japanese longline fisheries, was in agreement with swordfish biomass trends predicted by the MULTIFAN-CL model. IATTC analyses of standardized trends indicate that there are two stocks of swordfish in the EPO. Indices of relative abundance of these stocks does not appear to be declining. However, given the changing nature of gill net and longline fisheries, which are increasingly targeting swordfish, these stocks should monitor closely for future changes.

Future work plan of the Swordfish Working Group includes four objectives:

a. Conduct biological (age and growth), stock structure (conventional, archival and PSAT tag; genetics and meristic), and oceanographic research in support of improved stock assessment.

b. Develop and apply spatially explicit, integrated stock assessment models.

c. Develop, test, and apply a basin-scale swordfish simulation model.

d. Develop a comprehensive swordfish fishery database.

There is a critical need to develop longline fishing gear technologies and fishing strategies for reducing bycatch, especially in swordfish fisheries using shallow-set gear. The Working Group noted that this issue has been already taken up at the COFI/FAO.

Marlins (ISC3/PLEN/10)

The Marlin Working Group has not met following its formation at ISC2. Presentation of a collaborative stock assessment for Pacific-wide blue marlin was made.

In the Pacific blue marlin are an incidental catch of longline fisheries and an important resource for

big game recreational fishing. Over the past two decades, blue marlin assessments by different techniques have yielded results ranging from an indication of declining stock to a state of sustained yield at approximately the maximum average level.

Longline fishing practices have changed over the years since the 1950s in response to changes in principal target species and to gear developments. Despite increasingly sophisticated attempts to standardize fishing effort to account for changing fishing practices, the stock assessments to date are likely confounded to greater or lesser degree by changes in catchability for blue marlin. Yet only data from commercial longline fisheries targeting tuna provide sufficient spatial and temporal coverage to allow assessment of this resource.

To re-assess the blue marlin stocks in the Pacific and also to assess the efficacy of a habitat-based standardization of longline effort, a collaborative analysis was conducted involving scientists at the National Research Institute of Far Seas Fisheries, Shimizu, Japan, the Inter-American Tropical Tuna Commission, La Jolla, California, and the NOAA Fisheries Honolulu Laboratory, Honolulu, Hawaii. Using Multifan-CL as an assessment tool, there was considerable uncertainty in quantifying the fishing effort levels that would produce a maximum sustainable yield. However it was found that at worst, blue marlin in the Pacific are close to a fully exploited state, i.e. the population and the fishery are somewhere near the top of the yield curve. Furthermore, effort standardization using a habitat-based model allowed estimation of parameters within reasonable bounds and with reduced confidence intervals about those values.

Discussion : The high level of uncertainty at higher fishing mortality levels was pointed out also to be indicative of a stock that has not been fished hard enough to assess the impact of high exploitation levels. It was also suggested that the size data were relatively uninformative, and because of this the uncertainty in the estimates are probably wider than indicated by the model. In response to a query, it was indicated that the limited tagging data available have not been incorporated into the analysis. Plans for extending MULTIFAN-CL to handle sex specific data are developing.

4) Albacore (ISC3/PLEN/Inf 2)

The Seventeenth North Pacific Albacore (*Thunnus alalunga*) Workshop was held at the Institute of Oceanography, National Taiwan University, Taipei, Taiwan from December 6 to 13, 2000. A total of 23 participants from Canada, Japan, Taiwan and United States and the Inter-American Tropical Tuna Commission attended the Workshop. A total of 14 working documents and two informational documents were presented.

Participants reviewed total annual landings since 1952. Total landings reached a high, averaging 109,100 MT in 1972-1976 before declining to a low of 37,900 MT in 1991 as a result of declining stock biomass. Since the early 1990s, catches have dramatically increased and reached an all-time high of 127,800 MT in 1999. The fishing areas of the major fisheries have remained similar over the years. The Japanese pole and line targets albacore seasonally in the north-west Pacific and captures albacore from about 50 to 90 cm FL or ages 2 to 5 years. The Japanese longline fishery consists of the offshore and distant-water fleets. Sizes of fish caught by this fishery ranges from about 70 to 120 cm FL (3-9 years

old). The U.S. catch of North Pacific albacore is principally from a troll and longline fishery. The troll fishery operates from the North American coast to about 170°E within a latitudinal band from 30°-45°N. Sizes of albacore caught in the U.S. troll fishery ranges from about 60 to 90 cm FL and usually consists of two modal age groups of ages 3 and 4. The U.S. longline fishery operates in the central North Pacific near Hawaii and in a similar area of the Taiwan distant-water longline fleet. Sizes of fish caught by the U.S. longline fishery have been in the range of 90 to 120 cm FL.

Standardized CPUE were estimated by Generalized Linear Model (GLM) techniques for all the major fisheries. An ASPIC production model was applied to standardized CPUE from three different fishery groups. The production model produced estimates of 90,000 MT for maximum sustainable yield (MSY) for an early period (1952-1988) and 150,000 MT for a later period (1989-1998). There was also progress in determining stock condition through the use of an ADAPT VPA. Results indicate the spawning stock biomass was stable during 1975-1992 and increased through 1998. Recruitment decreased in the 1970s and 1980s with the level of recruitment in 1987 reduced to about 30% of the 1975 level. Recruitment then increased in the 1990s to a level substantially above the 1975 level. The workshop concluded that further technical improvements in the stock assessment analysis are needed in order to improve the accuracy and reliability of the results. Information indicates that the current high stock level is the result of recent increased recruitment, possibly related to changes in environmental conditions.

5) Bigeye and yellowfin tunas in the Eastern Pacific Ocean (EPO)

Bigeye tuna (ISC3/PLEN/12)

The delegate of the IATTC provided an outline of the most recent assessment of bigeye in the eastern Pacific Ocean described in ISC3/PLEN/12. It is not yet clear whether this fishery is most usefully analyzed as being directed at part of a Pacific wide stock or as a fishery on an eastern Pacific stock. The IATTC staff has focused on an EPO analysis as reported in the document but are also cooperating with scientists from the Japan and the SPC in Pacific wide modeling. In the EPO bigeye recruitment over the last 20 years has shown occasion large cohorts of recruitment in the second quarters of 1982, 1983, 1994 and 1997 and during the first quarter of 1998. Since 1999 recruitment has apparently been very low. The purse-seine fishery using fish aggregating devices developed in the early 1990s and the catchability using this technique increased rapidly. The spawning biomass was greater than the spawning biomass that would support the AMSY and the catch in 2000 was greater than the estimated AMSY. It is expected that the spawning biomass will decline over the next few years following the more recent series of low recruitments.

Yellowfin tuna (ISC3/PLEN/13)

The delegate of the IATTC provided an outline of the most recent assessment for yellowfin in the eastern Pacific Ocean, showing more recent results than those provided in the document (ISC3/PLEN/13). The yellowfin stock had enjoyed a very successful recruitment during 1998 and 1999. The stock size in 2001 reached a very large size, which supported a record catch during the year. More recent recruitment appears to be relatively low and consequently catches are expected to be lower in the

immediate future. Catch restrictions have been implemented in each of the last 4 years.

Discussion : The delegate of Russia thanked the IATTC delegate for the interesting presentation results made by the IATTC. He asked if these studies examined relationships between biomass of tunas and environmental factors. The IATTC delegate responded that it was not easy to select variables that cause and are not just correlated with the biomass trend. SST anomalies in the central EPO and the zonal velocity of north-south direction at 250m depth was used for yellowfin and bigeye, respectively. Further studies are examining these relationships. The SPC delegate inquired why the study started in 1980 despite the fact that data are available for earlier periods, and if the inclusion of tagging data was completed or not. It was explained the inclusion of a longer time period in the analysis might be made with increased computing power, however, it would also bring issues related to uncertainties associated with the changes in fisherman behavior and fishing technologies over time. As well, oceanographic data are not available before that time.

6) Bigeye and yellowfin tunas in the Western and Central Pacific Ocean (WCPO)

Tuna fisheries in the WCPO

Various tuna fisheries exist in the WCPO, of which longline, purse seine and pole and line fisheries are the major components operated by the distant water fishing sectors. There are miscellaneous fisheries (hand line, ring net, etc) in the Philippines and Indonesian waters whose catches have been relatively large. While the longline and pole and line fisheries have been reducing its fleet size and catch in recent years, those of purse seine fishery have expanded especially after the mid 1980s. The current annual catch of bigeye and yellowfin in the WCPO is 200,000 tons and a little over 400,000 tons, respectively, that corresponds to the highest or near highest catch on its record. Qualitatively important change, that is the introduction of Fish Aggregating Devices (FADs), had occurred in the purse seine fishery during the past few years. The use of FADs resulted in the increased catch of juvenile skipjack, yellowfin and bigeye tunas. Catch break-down by gear indicated that the bigeye catch is still dominated by longline fishery but considerably reduced its share, while the yellowfin catch by the surface fishery have surpassed the longline catch since the mid 1980s.

Discussion : There was a question regarding the frequency of the FADs use in the purse seine fishery and how the effect of this change was analyzed. It was informed that the current usage of FADs varied depending on the fleet but about 40% and slightly higher than that for Japanese and US fleets, respectively. On the latter question, it was told that there is not much sensation so far because the FADs fishing started just few years ago. However, the scientists realized its importance and difficulties in estimating the fishing effort.

Bigeye tuna (ISC3/PLEN/11)

Bigeye tuna is demonstrably slower growing, longer lived, as a consequence, less resilient to fishing than skipjack and yellowfin tuna. The results of limited tagging in the early 1990s indicated that bigeye tuna exploitation rates at that time were at least as great as those for skipjack and yellowfin tuna. Preliminary modeling results and fishery indicators suggest a decline in abundance occurred from the

early 1960s until the mid-1990s. This was related to a slight decline in recruitment over this period. Recent recruitment is estimated to be at a low level, although these estimates are subject to uncertainty. Recent catches and fishing mortality of juvenile bigeye tuna in particular have increased significantly. The results at this stage suggest that recent catch levels may close to the maximum sustainable with the present age-specific exploitation pattern.

The modeling results obtained to data are driven to a large extent by the estimates of standardized longline CPUE. These estimates are obtained from a habitat model in which the vertical distribution of bigeye tuna in relation ambient temperature is key input. Currently, this model input is based on a very limited number of observations of bigeye tuna tagging with sonic or archival tags. Additional tag data from various locations throughout the WCPO are required to improve these key estimates of bigeye tuna vertical distribution.

Discussion : A participant asked whether the drastic increase in natural mortality for adults following sexual maturity was seen in the Pacific-wide assessment as well as the central-western Pacific model. Hampton indicated that this was so, but that he intends to examine further this unusual occurrence. Regarding maximum fish age, Hampton indicated that he has not forced the model to use older age classes but merely allowed it to do so. Also, some tagged bigeye have been recaptured after 8 years at liberty. When the model is run without tagging data, the estimates of fishing mortality are larger and stock biomass lower than when tagging data are included. He sees no reason for not including the tagging data. The basis for the last SCTB recommendations regarding limiting fishing mortality of young bigeye and yellowfin tuna to current levels was requested by a participant. Hampton indicated that the SCTB used assessments similar to what he just presented as well as one by the IATTC for the eastern Pacific Ocean.

Yellowfin tuna (ISC3/PLEN/11)

The various fishery indicators are mostly stable, indicating that fishery performance has been sustained over a long period of time. The longline catch and effective effort estimates have a considerable impact on the results of the MULTIFAN-CL analysis. In particular, the analysis suggests declines in biomass and recruitment in recent years consistent with the recent decline in longline CPUE. The impact of fishing on the stock is therefore estimated to have increased in recent years, from a 20 % impact on biomass in the early 1990s to about 30 % impact in 2000. The estimate of current impact on the stock is somewhat lower than the corresponding estimate (50 %) from last year's report. This change is due in part to some refinement made to estimates of standardized longline effort and the addition of new data to the model, but also reflects the inherent uncertainty associated with population estimates for the most recent years.

The overall conclusion regarding the status of the WCPO yellowfin tuna stock is similar to that in previous reports. The stock is at least moderately exploited, with recent average levels of age-specific fishing mortality probably somewhat less than the corresponding MSY levels. Recent catch levels would therefore be sustainable at long-term average levels of recruitment, but the lower recruitment in recent years may indicate that the stock is shifting to a lower productivity regime. If this is the case, catch and

CPUE may decline in coming years.

7. Report of the Second Statistics Working Group Meeting (ISC3/PLEN/14)

The Statistics Working Group (STATWG) met at the Merca Tsukimachi Hall on 23-24 January 2002 with 34 participants from Chinese Taipei, Japan, Korea, United States, Russia, and IATTC. Major purpose of this Working Group meeting is to confirm and polish up the conclusion and decisions of the 1st statistics Working Group meeting held in Honolulu in 1999.

The STATWG concluded its second meeting with agreement on a number of procedural matters for submission and exchange of fishery statistics. The Group agreed to continue its work on establishing an ISC statistical database and a web site.

Significant modification of the Category I reporting requirements was recommended. Current Category I data reporting requirements (as adopted by STATWG1) require total catch and effort data for the entire North Pacific Ocean. For many ISC species, however, the stock area does not correspond to the North Pacific area (i.e. all waters north of the equator). For stock assessment purposes, it is essential to have available Category I data that correspond to the stock area of the species being assessed. It is recommended to provide better spatial resolution in the reporting of Category I data. STATWG coordinate with all ISC species groups to define sub-area of Pacific suitable for reporting of Category I.

With regard to Category II data, a more complete description of effort is needed in some cases. While longline and purse seine effort generally have a standard definition among ISC participants, the definition of effort for “other gears”. For the ISC nations and observers participating in STATWG2, effort has been more clearly defined, when needed, in the description of data collected. In other cases, data correspondents should submit more complete descriptions of effort as soon as possible, as need arises.

With regard to Category III data, STATWG2 discussed the need to standardize the length or weight measurements reported to ISC. It is recommended that the ISC database be designed to accommodate both a standard measurement (species specific) and the actual measurement taken during sampling. In many cases, these will be one and the same but if not, both measurement units should be reported to ISC.

Ad hoc statistics submission Working Group is established to develop the data format and data resolution for the categories I, II, and III in details. This group recommends the definitions (e.g. gears) and codes should follow the standard agreed by Coordinating Working Parties for Fishery Statistics (CWP code). This group continues the discussion on codes and format, and the conclusion will be provided to the STATWG.

Data access and sharing procedures were revised to ensure consensus among all contributors prior to releasing data to non-contributors. A Data Correspondent was identified for each nation, and a work plan for tasks that need to be undertaken in the intersessional period was also developed.

Discussion: It was clarified that data submission is voluntary and would consist of data inventory or actual data according to the discretion of the data contributor. The Plenary concurred with the Groups intent to publish any inter-sessional reports, following review by Group participants and approval by the Working Group Chair. The Plenary would then at its next meeting review the report, selectively adopt

Working Group recommendations and proposals. Additionally, the Plenary may provide its own recommendations. Further to this point, Japan expressed his view that these processes are important since the ISC Working Group reports forms an integral parts of the ISC Plenary meeting report.

8. Appropriate Resource Survey and Research System in North Pacific

The Plenary recognized the recommendations for future research on tuna and tuna-like species developed by the fishery scientists participating in the Working Groups as shown in the reports of the Working Groups. Future research objectives are included in reports for Pacific bluefin tuna (ISC3/PLEN/8), swordfish (ISC3/PLEN/9), and statistics (ISC3/PLEN/14).

9. Expansion of Participation in ISC

After the lengthy discussion, the Chinese Taipei delegation tabled the following amendments to the ISC guidelines, and they were adopted by the members at the Plenary. The revised provision of article B is following:

Guidelines for the interim Scientific Committee for tuna and tuna-like species in the North Pacific Ocean (revised)

The original provisions of article B	The revised provisions of article B
B.MEMBERSHIP 1. Members: a. Coastal states of the region; b. States with vessels fishing for these species in the region. 2. Observer participants: a. Relevant intergovernmental fishery organizations; b. Relevant intergovernmental marine science organizations; c. Other entities with vessels fishing for those species in the region.	B.MEMBERSHIP 1. Members: a. Coastal states/<u>fishing entities</u> of the region; b. States/<u>fishing entities</u> with vessels fishing for these species in the region. 2. Observer participants: a. Relevant intergovernmental fishery organizations; b. Relevant intergovernmental marine science organizations; c. (Delete)

The Chair instructed that this decision should be recorded in the report of the meeting. Chinese Taipei delegation requested the circulation of a new version of the Guidelines (Appendix 4) to all participants before the adjournment of the meeting. The Chair accepted and instructed the Secretariat to do so. Chinese Taipei then delivered a statement to the plenary. This statement was requested by the Chinese Taipei delegation to be recorded in the report as Attachment 3.

10. Review and Adoption of Operational Procedures

Arising from ISC2, the United States was to develop operational procedures in consultation with the National Correspondents Group. There was no progress intersessionally on this issue. A copy of draft ISC Operational Procedures (Appendix 5, ISC/2/99/21) was circulated among participants, and Chinese Taipei delegation participated constructively in the discussion by offering wording changes in several different places. However, Operational Procedures were not adopted by the Plenary. The U.S. delegation agreed to facilitate development of Operational Procedures before the next ISC meeting.

11. Other Matters

The possibility of the inclusion of skipjack was briefly discussed. Japanese delegate presented his view that there is no problem of the inclusion of skipjack to the ISC activity but it would be much more efficient to treat this species similar to yellowfin. The Plenary participants including Russian delegate agreed with what Japanese delegate proposed.

12. Next Meeting

The Chair and United States both emphasized that responsibilities and benefits of hosting ISC meetings need not be limited to Japan and the United States and that an invitation from any other party to host ISC would be welcome. The United States offered to host the upcoming meeting which is tentatively set for 2004. Details will be determined later via the National Correspondents Group. Also, the U.S. will assume responsibility for communicating about matters pertaining to any intersessional meetings.

13. Adoption of the Report

The draft report of the third meeting of the ISC plenary was adopted.

14. Closing

The meeting was adjourned at 14:35 of 30 January 2002. The chairman thanked all of the participants for their efforts in making ISC3 a successful meeting.

Appendix 1

Third Meeting of the Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean

PLENARY SESSION

January 28-30, 2002

in

Hotel New Nagasaki

Agenda

1. Opening
2. Opening Statement
3. Selection of Chairman and Rapporteurs
4. Adoption of Agenda
5. Delegation Reports of Fisheries regarding Tuna and Tuna-like Species
6. Review and Assessment of Fish Species
   1) Pacific Bluefin Tuna
   2) Swordfish
   3) Marlins
   4) Albacore
   5) Bigeye tuna
   6) Yellowfin tuna
7. Report of Statistics Working Group
8. Appropriate Resource Survey and Research System in North Pacific
9. Expansion of Participation in ISC
10. Review and Adoption of Operational Rules
11. Other Matters
12. Next Meeting
13. Adoption of the Report
14. Closing

Appendix 2. List of Documents

ISC3/PLEN/1 National report of Japan.
Miki Ogura (Japan)

ISC3/PLEN/2 U.S. report to ISC3 on fisheries statistics and research activities.
Southwest Fisheries Science Center (USA)

ISC3/PLEN/3 Recent status of Taiwanese tuna fisheries in the North Pacific Region.
Shyn-Bin Wang and Tzu-Yaw Tsay (Chinese Taipei)

ISC3/PLEN/4 Fisheries of bluefin tuna in the waters off Korea.
Jeong-rack Koh, Kwang-ho Choi, Doo-hae Ahn (Republic of Korea)

ISC3/PLEN/5 North-west Russian fisheries and research.
S. Yu. Leontiev (Russia)

ISC3/PLEN/6 The fishery for tunas in the Eastern Pacific Ocean.
IATTC

ISC3/PLEN/7 Report of the ISC Bluefin Tuna Working Group

ISC3/PLEN/8 Report of the second meeting of the Pacific Bluefin Working Group.

ISC3/PLEN/9 Report of Swordfish Working Group meeting.

ISC3/PLEN/10 Stock assessment of blue marlin (Makaira nigricans) in the Pacific with Multifan-CL.
Pierre Kleiber (USA), Michael G. Hinton (IATTC), and Yuji Uozumi (Japan)

ISC3/PLEN/11 Status of yellowfin and bigeye tuna in the Western and Central Pacific Ocean.
John Hampton (SPC)

ISC3/PLEN/12 Status of bigeye tuna in the Eastern Pacific Ocean.
George M. Watters and Mark N. Maunder (IATTC)

ISC3/PLEN/13 Status of yellowfin tuna in the Eastern Pacific Ocean.
Mark N. Maunder and George M. Watters (IATTC)

ISC3/PLEN/14 Report of Statistics Working Group.

ISC3/PLEN/Inf. 1 Second meeting of the Interim Scientific Committee on Tunas and Tuna-like species in the North Pacific (ISC).

ISC3/PLEN/Inf. 2 Report of the seventeenth North Pacific albacore workshop.

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Appendix 4

GUIDELINES FOR THE INTERIM SCIENTIFIC COMMITTEE FOR TUNA AND TUNA-LIKE SPECIES IN THE NORTH PACIFIC OCEAN

（Revised and adopted at the 3rd ISC Plenary Meeting on 29 January, 2002）

A. PURPOSES

1. To enhance scientific research and cooperation for conservation and rational utilization of the species of tuna and tuna-like fishes which inhabit the North Pacific Ocean during a part or all of their life cycle;
2. To establish the scientific groundwork, if at some point in the future, it is decided to create a multilateral regime for the conservation and rational utilization of these species in this region.

B. MEMBERSHIP

1. MEMBERS
   A. Coastal states/fishing entities of the region;
   B. States/fishing entities with vessels fishing for these species in the region.

2. OBSERVER PARTICIPANTS
   A. Relevant intergovernmental fishery organizations;
   B. Relevant intergovernmental marine science organizations.

C. PROCEDURES

1. The committee will be composed of representatives with suitable scientific and fisheries qualifications from members.
2. Observer participants should participate in the committee in a manner decided by the members.
3. Other scientific and fisheries experts may be invited to participate in the work of the committee by consensus of the members.
4. The committee is expected to meet during 1995 in Japan and thereafter once very two years or as otherwise as may be agreed.
5. The committee may establish subsidiary bodies which may meet in the interim between committee meetings with a view to reporting to the committee.
6. In carrying out its functions, the committee will take into account the work of other relevant technical and scientific organizations.
7. The committee will establish by consensus further procedures of its

activities.

D. FUNCTIONS

THE COMMITTEE WILL:

1. Regularly assess and analyze fishery and other relevant information concerning the species covered;
2. Prepare a report on its findings or conclusions on the status of such species such as trends in population abundance of such species, developments in fisheries, and conservation needs;
3. Strive to adopt reports and findings by consensus of all members, however, it is not necessary that consensus be achieved on all matters, and reports and findings may reflect options and differing views when a consensus has not been achieved;
4. Formulate proposals for conduct of and, to the extent possible, coordinate international and national programs of research addressing such species; and,
5. Consider any other matters, as appropriate, at the request of one of the members.

Appendix 5

ISC/2/99/21

Draft ISC Operational Procedures

Introduction

The purpose of the Interim Scientific Committee (ISC) is to enhance scientific research and cooperation for conservation and rational utilization of the species of tuna and tuna-like fishes which inhabit the North Pacific Ocean during a part or all of their life cycle, and to establish a scientific groundwork for future creation of a multilateral regime for conservation and rational utilization in the region. The ISC has a primary task to regularly assess and analyze fishery and other relevant information concerning covered species. This organizes and describes the procedures and rules of the ISC for increased effectiveness.

Membership

The ISC is composed of Representatives with suitable scientific and fisheries qualifications appointed by the Members of the agreement. Each Member may allow its representative as many qualified assistants or council as desired at meetings. Each Member will be responsible to establish the qualifications of its Representative, assistants or council. The ISC shall elect a Chairperson and Vice Chairperson.

Observers

The ISC may invite Observers from relevant intergovernmental fishery organizations, relevant intergovernmental marine science organizations or other entities with vessels fishing for these species in the region as well as other scientific and fishery experts to participate in meetings.

The Chairperson, in consultation with the Members, prepares the list of Observers to be invited. Observers may participate in discussions with the permission of the Chair, but will have non-voting status in the review of minutes of ISC meeting.

Meeting Frequency

The ISC meets once every two years beginning in 1995 or more frequently if required and agreed to by the Members. The time and place of the scheduled meeting shall be decided by the Members. The working language will be English with formal translation into Japanese for plenary sessions.

Subsidiary Bodies

At least one ISC Representative will be a member of each subsidiary body. The subsidiary bodies are required to work closely with the ISC for funds or resources to accomplish their designated tasks.

Procedures

A. Strive for Consensus

The ISC will strive for consensus in its operations. However, simple majority rule should be used when consensus methods are inappropriate.

B. Role of Chairperson

The ISC shall elect a Chairperson and Vice Chairperson to serve for two years. The election shall be by secret ballot. The nominee with a simple majority of the voting Representatives present shall be the Chairperson. The nominee with the second largest vote total shall be the Vice Chairperson.

The Chairperson's responsibilities shall include: 1. organizing the Agenda, 2. coordinating meeting arrangements, 3. Coordinating progress of work and reports from subsidiary bodies, 4. Chairing ISC meetings, 5. Preparing a list of observers, 6. Attending to other matters for smooth and efficient conduct of ISC business.

The Chairperson shall provide all interested parties with a tentative meeting agenda 90 days in advance of the next meeting (Members may offer agenda items). Agenda items may be added at any meeting by consensus of the Member.

The chairperson shall insure that reports and findings from subsidiary bodies are available to all participants for timely consideration.

C. Report on status of stocks

The ISC shall prepare a report on its findings on the status of stocks covering such points as trends in population abundance, new developments in the fisheries, safe levels of harvest and needs for conservation measures including the voluntary use of precautionary catch limits and measures for initiating new fisheries and experimental harvest regimes. Consensus on all points should be strived for. However, if not possible the report should provide for differing views and opinions.

In its' reports, the ISC should report on the current state of the population with respect to Specific Biological Reference Points (SBRP). To this end, the ISC shall, for each species considered, adopt Specific Biological Reference Points (SBRP) to use in determining the

stocks condition. The ISC should also consider both fishing and non-fishing factors which affect SERP's.

D. Coordination of research

The ISC will take into account the work of other relevant technical and scientific organizations in carrying out its functions particularly the work of other bodies dealing with Pacific highly migratory species, such as, FFA, SPC, SPAR, IATTC, and PISCES. It may formulate proposals for conduct of coordination of international programs of research that addresses issues associated with its charter. It may organize, solicit funding and conduct international research programs identified as necessary to achieve its objectives.

The ISC will host biannual workshops among all bodies conducting research and collecting data on Pacific highly migratory species to receive and assess reports, share data, and address issues of mutual concern.

E. Other matters

The ISC may consider any other matters, as appropriate, at the request of one of the Members.

Attachment 1

Opening Statement by Delegation of Taiwan
at the
Third Meeting of the Interim Scientific Committee on Tunas and Tuna-like Species in the North Pacific (ISC)
Plenary Session
28 January 2002
Nagasaki, Japan

Mr. Chairman and Distinguished Delegates,

On behalf of my Delegation, I would like to express our appreciation to the convener, Dr. Yuji Uozumi, for inviting us to participate in this meeting. I would also like to thank the Government of Japan for hosting this meeting.

From the first meeting of ISC in 1996 to the third meeting of 2002, two significant events took place during the last six years, which deserves our attention. First is the adoption and entry into force of the UNIA. The other event is the adoption of the MHLC Convention in September 2000. This Convention embodies the spirit of the 1995 UNIA.

Mr. Chairman, as a coastal state and ocean-going fishing nation in the North Pacific Ocean, we feel obligated to conserve and manage tuna resources in this region. Thus, my delegation is comprised of a majority of fisheries scientists. Their participation and contributions in last week's working meetings illustrated our commitment to the value of scientific exchange. Having said that we still like to register our dissatisfaction on the status of our participation in this interim scientific forum, and we like to see that an inclusive and equal arrangement could be developed in terms of our status of participation in this interim scientific forum.

Mr. Chairman, I wish that a constructive and fruitful discussion would emerge during this plenary meeting.

Attachment 2

Statement by Russia to the Opening Plenary Meeting of the Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean

Dear Colleagues,

First of all I am pleased to attend the Third Meeting of the Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, and may I extend my thanks and appreciation to the colleagues from Japan for hosting this meeting in the beautiful city of Nagasaki. And I also like to compliment for their hard work in preparation for this meeting.

There are two main reasons for our participation in the work of the Interim Scientific Committee.

In the Pacific Ocean the Russia commercial tuna fisheries and research activity started in 1970. This type of fishery and research were actively carried out up to 1992. In this period more than 100 specialized longline expeditions were conducted. Russian commercial purse-seining tuna fishery in the Pacific Ocean started in 1986, and was actively carried out up to 1992. During more than two decades the large amount of fishery and biological information was collected by Russian scientific organizations. In addition, tuna research has been conducted on distribution, behavior and biology of tuna species during directed research expeditions.

In present time, Russian commercial and research fisheries organizations still keep their interest to resume the tuna fisheries in the region.

And finally, taking into account all the above stated, Russia as one of the nations with a long history of fishing activities in the Pacific Ocean is very much concerned about the healthiness of tuna stocks and will make every effort to further fruitful cooperation with ISC.

Attachment 3

Statement of Taiwan Delegation Concerning the Adoption of the Amendment to the Guidelines for the Interim Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC)

29 January 2002

After deliberation, we have come to a conclusion to amend the existing Guidelines to incorporate Taiwan as a full Member of the ISC. I trust that this amendment reflects the general recognition by all of the participants of the ISC of Taiwan's contribution in this body. I am encouraged by this latest development, and I would like to share with you that Taiwan will regard itself as a constructive force in this body in the days to come. Thank you all.