

## American Fishermen's Research Foundation News ©

The American Fishermen's Research Foundation (AFRF) has supported research and education of the albacore and pole and troll fishery since 1971. It was founded by fishermen with foresight to see the issues we are now facing such as maintaining access to the ocean for all U.S. albacore fishermen. More than six million dollars have been spent on projects and research related to this fishery. The industry by contribution pays most of the funds beyond dock price of albacore. AFRF supports the entire albacore fishery with its' efforts, not just individuals and association members.

**AFRF Tagging Charters:** American Fishermen's Research Foundation (AFRF) is continuing the long term archival-tagging cooperative project with SWFSC - NOAA/NMFS. AFRF had one batch of tags to place in 2010 that were received late. The charter boat Playboy II was secured by AFRF in September to tag the fish out of Westport, WA, unfortunately after 15 fish were tagged no more could be caught in the area. The alternate vessel F/V Royal Dawn is tagging the remaining 57 tags off Southern Oregon and N. California and may have encountered lack of fish. The second batch of tags and any remaining from this year will be placed early next season. Remember if you recover one of these tags it is worth \$1,000 in reward funds.

**Changes in Leadership of the Southwest Fisheries Science Center:** Dr. Usha Varanasi has served both as the Director of the Northwest Fisheries Science Center, and, for over a year now, as Acting Director of the Southwest Fisheries Science Center (SWFSC). Effective Monday, 18 October, Dr. Varanasi will step down as acting SWFSC Director. As they finalize the selection of a new Southwest Director, Ms. Kristen Koch, the current Deputy, will serve as Acting Science Director at the SWFSC. Mr. Rick Brown, of the Northwest Fisheries Science Center, Newport, Oregon will serve as the acting Deputy SD, SWFSC until a new permanent director is seated.

**Albacore Working Group (ALBAWG) - Dr. Vidar Wespestad:** An intercessional workshop of the Albacore Working Group (ALBAWG) of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) was convened at the Southwest Fisheries Science Center in La Jolla, USA, on 12-19 October 2010. The goal of this workshop is to prepare the data for the upcoming stock assessment of North Pacific albacore in March 2011. Specific objectives include: (1) complete fishery definition work begun at the April 2009 workshop; (2) review input data series (catch, size composition, CPUE) for consistency with the new fishery definitions; (3) discuss model parameterization for the Stock Synthesis model (SS3) (and VPA-2Box); (4) conduct exploratory runs of the SS3 model to assess the impact and develop solutions to parameterization issues; and (5) determine the future of the VPA model work for the assessment workshop. In addition, matters related to the future work plan for the working group and the necessity of preparing for independent peer-review of the upcoming assessment were included on the agenda for this workshop.

The Working Group examined all of the CPUE and catch-at-length data available for use in the model. At the July 2010 ALBAWG meeting 12 distinct fisheries were defined as input to the model. At this meeting these definitions were reviewed and the fisheries identified were subject to further scrutiny to examine the input data to ensure data completeness and to make appropriate modifications to increase the usefulness of available data series. All of the input data was vetted for errors and lack of fit. The goal was to identify the data set that best reflect the nature of the fisheries and are the most robust indicators of stock trends. This

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was done for all of the fisheries. As an example the following was carried out for the US/Canada Troll Fishery.

The US and Canadian troll fisheries operate in similar ways, and have overlapping fishing areas and similar size compositions. Previous stock assessments have only used data from the US fishery to derive a standardized abundance index but the ALBWG suggested developing a joint US/Canada index for the upcoming assessment. We developed and compared the joint US/Canada index with US-only and Canada-only indices. The main sources of data used in this paper were catch-effort information from logbooks of the US (1966-2008) and Canadian troll fisheries (1995-2008). For both US and Canadian logbook data, we aggregated catch and effort data into  $1^{\circ} \times 1^{\circ}$  spatial blocks by month. A lognormal generalized linear model was used to standardize CPUE and 1000 bootstrap runs were used to estimate confidence intervals. The joint US-Canada standardized abundance index was comparable to the US-only and Canada-only indices for their respective periods. Based on the results of this study, we recommend that the ALBWG use the merged US-Canada abundance index in the upcoming stock assessment model. The WG noted that the results showed that in general the data were similar and could be combined. There was some discussion of different data cell configurations and impacts on results. The analyst agreed that there was a need for additional examination of data weightings, but these were felt to be minor and would be addressed prior to the assessment.

Fitting to the SS3 model to biological and CPUE data

The objective of this agenda item was to consider whether the new fishery definitions make sense in light of catch and size data for the fleets. The WG specifically looked for conflicts in these data sources. The definitions for the major fisheries are summarized as follows:

1. US-Canada Troll Fishery: Catch aggregated by time/area blocks; length frequencies complied from raw data;
2. Japan Pole and Line 2: Catch aggregated by time/area blocks; length frequencies is conversion of catch at size to time/area blocks;
3. Japan Pole and Line 3: Catch aggregated by time/area blocks; length frequencies is conversion of catch at size to time/area blocks;
4. Japan LL: Catch aggregated by time/area blocks; length frequencies is conversion of catch at size to time/area blocks;
5. Japan Gillnet: Catch data and length frequencies for area/time blocks based on PL3 catch at size.
6. Taiwan longline Catch aggregated by time/area blocks; length frequencies complied from raw data and;
7. All other fisheries utilize selectivity estimates from fisheries with similar length frequency distribution.

Preliminary runs were made with data thru 2008. The results suggested that the fishing mortality on older fish in recent years may be unreasonably high in some of the model runs. Further exploration of the models

suggested that changing the growth parameters to be more in line with observed sizes of the largest fish and other albacore stocks would reduce the issues with unreasonably high  $F_s$  of older fish in recent years. Several SS3 runs with different growth curve parameterizations showed that the scaling of SS3 output may be driving by sensitivity to the growth curve used in the model. The final runs of the model indicate that better growth parameters are needed to better fit the length data. Also the working group recommended down-weighting US longline CPUE because of major shift in fishing patterns due to management restrictions on the fishery. Similarly the early Korean longline data should be also down-weighted because of a very high uncertainty in the age composition of the catch.

#### Interim reference point (IRP)

The Northern Committee (NC) of the Western and Central Pacific Fisheries Commission (WCPFC) at its sixth regular session in September 2010 confirmed that the interim management objective for North Pacific albacore is to maintain the spawning stock biomass (SSB) above the average level of its 10 historically lowest points (ATHL). The fishing mortality rate that would likely cause SSB to fall below this level with a probability greater than 50% is referred to as the interim reference point (IRP). The WG briefly discussed other reference points, particularly for presenting  $F$  relative to MSY-based reference points, but there was no consensus on how or what to choose.

The next meeting of the ALBWG will be the stock assessment workshop, 22-29 March 2011, hosted by the National Research Institute of Far Seas Fisheries in Shimizu, Japan. At that meeting the final tuning of input data will occur, data updated to 2009, and the model will be run to determine the abundance trend and project future levels of abundance based on projected fishing mortality and recruitment of new year-classes.

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#### **International HMS Management and Conservation Meetings: - Peter H. Flournoy**

In the August newsletter I previewed several upcoming RFMO meetings. The WCPFC-NC in Fukuoka, Japan, the IATTC SC in La Jolla, the IATTC-GAC meeting at the SWFSC in La Jolla, and the IATTC Annual meeting in Antigua, Guatemala. All these meetings were attended by AFRF, although their utility remains open to question. I also may have mentioned the WCPFC -SC and the WCPFC-TCC meetings which I did not attend.

Western and Central Pacific Fisheries Commission Northern Committee, Fukuoka, Japan, September 7-10, 2010 and the September 6, 2010 Informal Meeting on Biological Reference Points. Of major concern was the discovery shortly before the meeting that the Canadians had a management proposal based on the precautionary approach which they intended to present at this meeting and that the U.S. was considering in joining in the resolution. The concern was that no one from the albacore fishery (or any other fishery as far as could be discovered) had seen or commented on the proposal. After the pre-meeting conference call, the proposal was distributed from the SWR of NOAA Fisheries, and appeared to be very general, and fairly innocuous. The fact that the Canadian proposal had gone to PIRO from the SWR was unusual, and led to a questioning of both the State Department and the International Office of NOAA-Fisheries as to why the proposal and comments on the proposal had not gone through those offices. We received the following assurance from the State Department "We continue to be actively engaged in these issues and the WCPFC, including the NC, and IATTC meetings with NOAA." After lengthy discussions the U.S. did not join in the resolution, and Canada broadened the resolution so it applied to all HMS, not just albacore. The Canadian

proposal was accepted by the NC as a working document, but not as a formal resolution. The action can be summarized as follows:

The WCPFC Convention text requires members to determine stock specific reference points, to take measures to ensure points are not exceeded, and to take action without delay if these reference points are exceeded. DP02 [Canadian paper] outlines one way to adopt a PA [precautionary approach] regime – through the establishment of control rules which identify three stock status zones – healthy, cautious and critical – based on pre-determined reference points. A removal rate is set, and decision rules and management actions are decided in advance, which come into effect as the stock approaches the critical zone.

While it did not appear specifically on the agenda, there nevertheless was an extended discussion of what occurred in December of 2009 WCPFC Annual meeting when proposed amendments to the North Pacific Albacore Resolution were submitted to, and rejected by, the full WCPFC Commission. The Pacific Island States, and FSM in particular, objected that the amended resolution would apply north of the equator (as the current resolution does) rather than north of 20 degrees north (which describes the NC's area of application but does not take into account that all stocks shall be managed throughout their range). Prior to the meeting the U.S. had been willing to split the amended resolution into two resolutions, one by the NC to apply down only to 20 degrees North, and the other by the WCPFC to apply from 20 degrees to the Equator. This was strongly objected to by AFRF as undermining the principle that the HMS species should be managed throughout their range and that this northern albacore fishery should be managed by the Northern Committee. The question of how to define "current effort" for the WCPFC-NC resolution was pre-empted by the ISC's statement that "current effort" with regard to the last assessment in 2005, would be the years 2002-2004. For various reasons it was decided to postpone discussion of the resolution amendments until the 2011 meeting of the NC when the results of the ISC's assessment of north Pacific albacore should be available.

The ISC also completed a document (NC6-WP-09 or ISC/10/Plenary/04) in response to the NC5 request for advice on candidate Biological Reference Points (BRPs) for the NC workshop.

While this was very educational, in that the ISC had ranked and/or evaluated different possible biological reference points for albacore and swordfish, unfortunately, there was no effective discussion on reference points in the NC meeting. Nevertheless, there was progress and the NC agreed:

1) The interim management objective for North Pacific albacore is to maintain the spawning stock biomass (SSB) above the average level of its 10 historically lowest points (hereinafter referred to as .the Level.). The fishing mortality rate that would likely cause SSB to fall below the Level is referred to as .interim reference point. (IRP).

2) In the event that ISC finds that the current fishing mortality rate exceeds IRP, the Committee shall, at its next meeting, formulate conservation and management recommendations that are designed to reduce the fishing mortality rate below IRP within one year of adoption of measures. In formulation of such measures the committee shall consider relevant socioeconomic factors and any relevant information from ISC, including its latest conservation advice.

The current advice given from the ISC on albacore was as follows:

Previous scientific advice, based on the 2004 stock assessment, recommended that current fishing mortality rate (F) should not be increased. It was noted that management objectives for the IATTC and WCPFC are based on maintaining population levels which produce maximum sustainable yield. Due to updating and improvements and refinements in data and models used in the 2006 stock assessment, it is now recognized that F (2002-2004; 0.75) is high relative to most of the F reference points [commonly used in fisheries management](see Table 5a in Annex 5) [of the ISC7 Plenary Report].

On the other hand, the same analysis indicates that the current [2005] estimate of the SSB is the second highest in history but that keeping the current F would gradually reduce the SSB to the long-term average by the mid 2010s. Therefore, the recommendation of not increasing F from current level (F 2002-2004= 0.75) is still valid. However, with the projection based on the continued current high F, the fishing mortality rate will have to be reduced.

IATTC SC, WCPFC SC WCPFC-TCC, IATTC GAC and Annual IATTC Meeting in Antigua, Guatemala, September 23-October1, 2010:

While these meetings are all important, very little of a substantive matter emerged. Materials from the IATTC-SC, and the WCPFC-SC have been reviewed and commented upon. The documents from the WCPFC-TCC are to be commented on by October22nd in preparation for the Annual meeting in December.

There was another small firestorm which arose beginning with the IATTC GAC meeting and continuing through the IATTC Annual meeting which revolved around a mis-understanding between some in the U.S. Section of the IATTC and AFRF over a request to the IATTC Secretariat:

The United States requests that the Secretariat conduct a quantitative cost-benefit analysis of implementing a total allowable catch (TAC) program in the purse seine and longline fisheries targeting tunas in the IATTC Convention Area for 2012 and beyond. The United States is interested in comparing various TAC programs to determine which is the most beneficial and feasible, including: 1) a global TAC (i.e., competitive among members and vessels); 2) national TACs; 3) national TACs with individual fishing quotas allocated to vessels of each nation; 4) individual fishing quotas allocated to vessels irrespective of flag; and 5) an industry-financed buyback (perhaps with an initial World Bank loan) of excess rights and/or vessels. These programs should be analyzed for the purse-seine and longline sectors, as well as the possibility of combining these sectors in a TAC program.

The initial request, a draft of which was seen shortly before the meeting commenced, seemed to be requesting a study of "catch shares" and "rights based" management. AFRF questioned the need to have an international organization analyze a system which could determine how a national TAC was distributed. This seemed to be a domestic law question for the Councils. Admittedly, the request was confined to longline and purse seine gear vessels, however, it was believed this could be a precedent for later treatment of the troll and baitboat albacore fishery. Furthermore, once again, it appeared that no one in any of the fisheries had been consulted in any meaningful manner. So the language that was specific to "catch shares" was deleted during delegation discussions while the IATTC met.

Another disturbing development was not being able to get the U.S. comments in writing on a Japanese catch documentation scheme until after those comments had been made in the plenary, and in fact not until after the delegation left Antigua. This was particularly frustrating since AFRF had requested a discussion of the

U.S. position on the catch documentation scheme, since it appeared to include troll caught albacore, the very morning the item came up later in the plenary. After reviewing the U.S. comments, they can be read to reflect AFRF's concerns, however, the language is very unclear.

It is likely that the Canadian precautionary approach proposal, the Japanese catch document scheme, and even the request for an analysis of TACs etc. will surface again at the WCPFC Annual meeting in Hawaii and AFRF will ensure that its views are communicated to the U.S. government.

The greatest disappointment at the IATTC meeting was China's apparent objection to almost every resolution which prevented the IATTC from reaching consensus under the Antigua Convention on most matters before it. AFRF was further disappointed to see an apparent lack of cooperation between the IATTC and the WCPFC on matters such as bluefin conservation. Such cooperation with regard to north Pacific albacore is critical.

The final disappointment was the failure of the U.S. to push for a side meeting of Canada, Japan, the U.S. and Mexico on albacore. After the ISC report and the WCPFC-NC meeting, it was fairly clear, although not cast in stone, that the term "current effort" was going to have the meaning of the average catch or effort for the time period for which data was utilized for the relevant assessment. That is, for the 2011 assessment it is likely to be defined as 2005-2010. It should be noted that this is different from the time period which might be considered when dividing up a global TAC into national TACs. Nevertheless, given that the major portion of the current troll and baitboat fishery of the U.S. occurs within the competence of the IATTC, and given the pendency of the 2011 assessment, it seems that it would have been worthwhile and prudent for the four countries involved in the fishery to discuss the future management and conservation of the resource.

Future Meeting: It is very fortunate that the Annual meeting of the WCPFC will be in Hawaii in December. Hopefully many members of WFOA and AFRF will be able to attend some or all of the meetings which are open to the public, whether you are on the official U.S. Delegation or not.

Additionally, another in the series of Kobe meetings of RFMOs on HMS will be held in San Diego during July 11<sup>th</sup> to the 15<sup>th</sup>. In the past these meetings have been held in foreign locations such as Spain, New Zealand, Japan and Australia, making attendance difficult. Additionally, the EU has just requested that the next IATTC Annual meeting be held back to back with this meeting from June 27<sup>th</sup> to July 8<sup>th</sup>. Since the U.S. is hosting the Kobe type meeting, the U.S. would also have to agree to host the IATTC Annual meeting before it could also be held in La Jolla. Nevertheless, we hope this will come to pass so members of WFOA and AFRF can take the opportunity to attend and be initiated into the world of international tuna RFMOs.

**AFRF Contracted Buyers:** Bornstein Seafoods Inc., Bumble Bee Seafoods, Chicken of the Sea International, Driscoll's Wharf, Interocean Fisheries, Island Trollers Inc., Jessie's Ilwaco Fish Company, JK Fisheries, Ilwaco Landing LLC, New Day Fisheries, Pacific Seafood Group, Papa George Gourmet Albacore, Pelican Packers Inc., Seafood Producers Co-op, Shamrock Fisheries, Star Kist Seafoods, Starvin Marvin Seafoods, Trident Seafoods, Tri-Marine International, Whole Foods Select Fish, Wild Planet Foods Inc

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