American Fishermen's Research Foundation News

Archival Tagging: As most know AFRF has been involved in a cooperative research program conducting archival tagging on albacore with NOAA/NMFS through the Southwest Fisheries Science Center (SWFSC) since 2002. More than 1,000 tags have been deployed coast-wide with nearly 40 recoveries over the years. Unfortunately due to slow unpredictable fishing, tags were not deployed in the 2017 season. They will be deployed next season. AFRF will have a boat and plan worked out prior to the 2018 season. Thanks to those that have sent in tagging applications prior to 2017. We appreciate the interest and will be in contact as we prioritize for next season.

In March 2017 AFRF also hired Stephanie Snyder to run the data on the last four recovered tags that have not been processed. She completed the four recently and gave AFRF a detailed report on each tag. She will be doing a full report for AFRF later and process any others that are recovered.

Unfortunately, AFRF cannot yet distribute the reports publically as the board will have to decide soon how to do that as there are some ownership issues and confidentiality issues to resolve. I expect AFRF can distribute it to fishermen sometime this winter as the information is very interesting and there was much more data of different varieties on the tags we never realized in the past.

Below is a snippet from one report without the graphics on a tag that was out for three years as an example.

Tag 1190241 Recovery Report - August 15, 2017 - Stephanie Snyder (edited for content and length)

Overview
The albacore carrying tag #xxxx collected data for almost 3 years (1,034 days). During the first year, the fish exhibited a characteristic seasonal offshore migration, then followed the same outgoing path the second year. The fish was tagged by James Wraith aboard the Royal Dawn on October 8th 2011 and traveled 79,397 km (49,335 miles) until it was recovered in the longline fishery on August 7th 2014. While at sea, the fish grew from 74.5 cm fork length at time of deployment to 103 cm fork length by the time of its recapture. The fish's migratory and diving behavior as well as its habitat preferences and physiology changed as the fish aged.

Migration
For the first year, the albacore exhibited a normal migration pattern, moving offshore from Oregon to known offshore focal areas and then returning the following summer (Childers, Snyder & Kohin, 2011). The fish then migrated back offshore the second year, but failed to return to our west coast fishery area. Migrations offshore in 2011 and back inshore in 2012 were both delayed by almost a month relative to other fish tagged north of 40°N. Interestingly, the fish began its offshore migration in 2012 on the exact same day and followed a very similar path to the same offshore focal area. However, the fish did not return to the coast in the summer of 2013, but rather remained offshore and started to move south.

Like the other tagged fish, this fish's return to the coast was much faster than its departure. Its average

migration speed was 58.5 km per day (36.3 miles per day) on the outbound journey heading southwest and 122 km per day (75.8 miles per day) on the inbound journey heading northeast. Inbound journey was more direct than its outbound journey.

Oceanography
During the first year, the albacore remained in waters of SST between 10°C and 20°C which is the typical range for juvenile albacore; however, beginning in the summer of year 2, the albacore swam in much warmer waters (Figure 3). Although the fish was in the similar geographical areas in the fall, winter and spring, the fish experienced colder SST in fall and warmer SST in spring during its second year compared to its first year. During the summer of 2013, the fish moved south and experienced waters warmer than 25°C for an entire year.

WCPFC - Northern Committee Meeting - August 2017- Busan, Korea: By Peter Flournoy -The primary item to report from this meeting was that there was very little direct discussion of albacore – north or south Pacific. The meeting focused primarily on bluefin tuna.

The one item that was accomplished, however, was the re-titling of a document approved a couple of years ago as a precautionary approach to north Pacific albacore so that it is now called a harvest strategy for north Pacific albacore, which gives it a certain status under the WCPFC nomenclature and reconfirms that target reference points and harvest control rules will not be set until after the completion of the Management Strategy Evaluation (MSE) which is likely to take another two or three years.

The conservation advice from the newly approved 2017 assessment of north Pacific albacore from the International Scientific Committee (ISC) was also reviewed by the meeting. The primary conclusions are quoted below. One item of note is that this assessment for the first time gave separate evaluations for male and female albacore. It is also noteworthy for the warning that is present harvest levels are maintained that there is a 30% chance that the stock spawning biomass (SSB) would fall below the currently set limit reference point of 20% by the year 2030.

"The following information on the status of the north Pacific albacore stock is provided:

The stock is likely not overfished relative to the limit reference point adopted by the Western and Central Pacific Fisheries Commission (20%SSB current F=0), and

No F-based reference points have been adopted to evaluate overfishing. Stock status was evaluated against seven potential reference points. Current fishing intensity (F2012-2014) is below six of the seven reference points (see ratios in Table ES1), except F50%."

"The following information is provided:

If a constant fishing intensity (F2012-2014) is applied to the stock, then median female spawning biomass is expected to undergo a moderate decline, with a < 0.01% probability of falling below the limit reference point established by the WCPFC by 2025. However, expected catches in this scenario will be below the recent average catch level for this stock.

If a constant average catch (C2010-2014 = 82,432 t) is removed from the stock in the future, then the decline in median female spawning biomass will be greater than in the constant F intensity scenario and the probability that SSB falls below the LRP will be greater by 2025 (30%). Additionally, the estimated fishing intensity will double relative to the current level (F2012-2014) by 2025 as spawning biomass

declines."

The Interim Harvest Strategy which was adopted to be approved by the whole Commission in December is reprinted below:

Interim Harvest Strategy for North Pacific Albacore Fishery - Harvest Strategy 2017-XX

This Interim Harvest Strategy replaces the "precautionary management framework for north pacific albacore" adopted at the 11th regular session of the Commission, which is based on the recommendation of the Northern Committee at its 10th regular session.

1. Interim management objective - The management objective for the North Pacific albacore fishery is to maintain the biomass, with reasonable variability, around its current level in order to allow recent exploitation levels to continue and with a low risk of breaching the limit reference point.

2. Biological reference points - Based on ISC's stock assessment advice and following the hierarchical approach adopted by the Commission, North Pacific albacore is to be treated as a Level 2 stock. The following is based on an average recruitment scenario:

The limit reference point (LRP) for this stock is established at 20%SSBcurrent F=0.

This LRP is consistent with the Annex II of the UN Fish Stocks Agreement (UNFSA) and recent WCPFC decisions on LRPs for the three tropical tuna species and South Pacific albacore, where 20%SSBcurrent F=0 was adopted. If this point is breached, management actions will be taken to return the stock to a predetermined level as outlined in the subsequent section on Decision Rules.

The target reference point (TRP) for this stock will be determined following a comprehensive analysis under a management strategy evaluation (MSE) approach as outlined in section 4 on "Future Work". Historical fishing activity, anticipated fishing activity, and the source of increased fishing mortality will also be considered when evaluating a suitable TRP. Socioeconomic factors, as per UNFSA Article 6.3.c., will be further considered. The existing conservation and management measure (CMM) for the stock (WCPFC 2005-03) establishes through limits on current effort an overall management regime for the stock.

3. Decision rules - NC recommends a management strategy for the stock that ensures that the risk of the biomass decreasing below the LRP is low.

LRP rule: In the event that, based on information from ISC, the spawning stock size decreases below the LRP at any time, NC will, at its next regular session or intersessionally if warranted, adopt a reasonable timeline, but no longer than 10 years, for rebuilding the spawning stock to at least the LRP and recommend a CMM that can be expected to achieve such rebuilding within that timeline. NC will take into account historical fishing activity and the source of increased fishing mortality when developing management strategies to rebuild the stock, including in establishing effort reductions. NC will further consider socioeconomic factors, as per UNFSA Article 6.3.c., as well as which NC members, if any, contributed to exceeding the LRP.

4. Future work - This framework may be periodically reviewed and revised. To support such revisions, NC endorses the ongoing development and implementation of an MSE for the stock and fishery, which would yield new information that would enhance the robustness of this framework.

3rd ISC North Pacific Albacore Management Strategy Evaluation Workshop - October 17-19, 2017
Pinnacle Harbourfront Hotel, Vancouver, Canada

Background - To ensure adoption effective fishery management measures, Tuna RFMOs have been working towards developing and implementing a management strategy evaluation (MSE) process. This process provides decision makers with information to assess consequences of a range of management strategies given stated fishery objectives, exposing the underlying tradeoffs between the various management strategies.

The International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), with endorsement from the Western Central Pacific Fisheries Commission-Northern Committee, is charged with conducting a MSE process for North Pacific albacore tuna. The 1st ISC Management Strategy Evaluation Workshop was held April 16-17, 2015 in Yokohama, japan. The first workshop was designed to familiarized managers, stakeholders and scientists with the key components required in developing an MSE, and the role each group plays in the MSE process.. The 2nd ISC Management Strategy Evaluation Workshop was held May 24-25, 2016, also in Yokohama, Japan. This workshop focused on developing input from managers and stakeholders regarding management objectives for the north Pacific albacore stock.

Workshop Goals and Objectives - The goal of the 3rd ISC Management Strategy Evaluation Workshop is to finalize management objectives and strategies for testing within the MSE framework through discussion with mangers and stakeholders. Specific objectives include:

1.Review management objectives and performance metrics previously proposed (Yokohama, May 2016),

2.Identify acceptable level of risk for each objective to be used in evaluating performance of management strategies,

3.Develop a preliminary set of candidate reference points and harvest control rules for testing, and

4.Review the work plan and time line for conducting management strategy evaluation.

Intended Audience - This meeting is intended for managers who regulate north Pacific albacore fisheries, fishermen and others involved in the fishing industry, non-governmental organizations, and scientists responsible for delivering science on the north Pacific albacore stock.

HACCP: There is a scheduled a Segment 2 training for Seafood HACCP in Astoria on Nov 10. I am asking attendees to have Segment 1 online training completed by Nov 3 in order to get there email notification in time. This is usually more pertinent to the processors, than fishermen...but never know if there are fishermen thinking about doing minimal processing as well.

AFRF Contracted Buyers: Bornstein Seafoods Inc., Bumble Bee Seafoods, C2C Premium Seafood, Chicken of the Sea International, Driscoll's Wharf, Hag Fish LLC, High Seas Tuna Inc., Interocean Fisheries, Island Trollers Inc., Jessie's Ilwaco Fish Company, JK Fisheries, Ilwaco Landing LLC, Oregon Seafoods, Pacific Seafood Group, Papa George Gourmet Albacore, Pelican Packers Inc., Seafood Producers Co-op, Star Kist Foods, Trident Seafoods, Tri-Marine International, Westport Seafood Inc, Wild Planet Foods Inc