## 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.

Albacore Archival Tagging Program: Progress Report Brief Summary From Stephanie Snyders - full report which will be available soon.

The Albacore Archival Tagging Program (AATP) is a joint effort by the Southwest Fisheries Science Center and the American Fishermen's Research Foundation to provide biological insights into the stock structure, the movement patterns and the catchability of North Pacific albacore by electronically tagging juvenile albacore along the U.S. west coast. Over the last 15 years, the procedures for tagging juvenile albacore have been developed and refined resulting in a large, detailed dataset. AATP's dataset — with 37 tag recoveries and 42 annual migrations — contains fine scale environmental, physiological and behavioral information across broad spatial and temporal scales. The development of new analytical techniques and expertise is just beginning to uncover the mechanistic underpinnings that drive observed albacore movement patterns — from environmental cues to ontogenetic shifts in behavior. The operation is now well-known with an extensive network of informed and engaged fishermen and scientists alike. The AATP provides a valuable long-term platform for fishery independent research on albacore, a highly migratory species with broad international interest . . .

. . . The archival tagging data revealed a complex fishery with high inter-annual variability in fish behaviors and environmental conditions. The fishery independent archival data provided detailed migration patterns across the Pacific, oceanographic habitat preferences of juvenile albacore, and fine scale diving behaviors. Successful tagging operations resulted in multi-year deployments giving insights into ontogenetic shifts in behavior. Because the data continues to directly address the research needs for stock assessments as well as furthering our basic biological understanding of albacore, the project continues to receive funding, databases and analytical tools continue to be developed, and tagging deployments to date are more than double the initial pilot study plan.

## Program Highlights

- \* 1,086 tags have been deployed along the U.S. west coast.
- \* 37 of those tags have been recovered providing detailed environmental, physiological, and behavioral data for 42 annual migrations.
- \* Detailed physiological and behavioral response to environmental temperatures revealing a mechanistic

## AFRF DIRECTORS '2017'

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- \* 3 peer-reviewed publications, 1 dissertation, and at least 12 conference presentations.
- \* The first publication resulting from the AATP is cited 3 times in the current stock assessment report and provides information on stock structure and movement patterns.
- \* The data from the AATP addresses the simplified spatial structure of North Pacific albacore, one of the key uncertainties in the current stock assessment.

## Future Directions

The AATP is a valuable scientific collaboration that provides a fishery independent, long-term dataset. Collaborations between fishermen and scientists are essential for providing the scientific knowledge to support stock assessments and management decisions. Fishery independent data, such as tagging data, provide critical information on the behavior and physiology of fish beyond when and where they encounter fishing effort. Furthermore, the long-term nature of this project gives insight into how inter-annual variability in oceanographic conditions could impact the fishery.

The AATP has already proven to be useful in its support to stock assessment and its scientific contributions. However, much of the return on investment is still to be realized. This dataset has the potential to offer empirical information on catchability within the context of oceanography as well as more detailed information on the timing of recruitment from the surface fishery to longline and seine fisheries. By uncovering the mechanisms behind albacore movement, the AATP also provides modelers with ways to better project distribution under varying climate predictions. However, the potential of the dataset can easily be lost without the effort to deploy tags and invest in the analysis of the growing dataset . . .

In moving forward with analysis, research can be focused towards utility to the stock assessment effort. Currently, research is underway to provide a better biological assessment of catchability which is currently solved analytically in the stock assessment. Combining the knowledge gained in the past 15 years, the unique AATP dataset, the collaborations, and these recommendations, the AATP is likely to continue to be a successful contributor to both the domestic and international efforts to manage North Pacific albacore. .

69th Tuna Conference Lake Arrowhead, California May 21-24, 2018

Note: Stephanie Snyder will be doing a poster presentation on the Tagging Program at this event. AFRF science rep David Itano will also be attending.

This announcement is to remind you about our invitation to attend the 69th Tuna Conference (http://www.tunaconference.org/) Monday through Thursday, May 21-24, 2018. The conference will be at its traditional venue at University of California, Los Angeles (UCLA) Lake Arrowhead Conference Center (http://uclaconferencecenter.com/). In order to secure our venue and lodging, we must receive your registration and full payment no later than February 23, 2018. Please R.S.V.P. on or before this date. Please share this announcement with any other parties and refer to our webpage www.tunaconference.org for detailed information. The annual Tuna Conference is sponsored by the NOAA Fisheries and the Inter-American Tropical Tuna Commission, and it attracts an international community of scientists and participants interested in research on tunas and tuna-like species. The Tuna Conference provides an informal forum for the presentation of ongoing research and developing theories, and unique opportunities for stimulating exchanges of views and opinions.

The theme for this year's Tuna Conference will be "Climate variability and ecosystem considerations in management of large pelagics". Variability in the ocean environment drives changes in the distribution, feeding behavior and reproduction of pelagic fishes. This can result in altered stock productivity and availability to fishing fleets, with subsequent impacts on fishing communities. Climate variability and long-term change can therefore challenge traditional assessment and management frameworks. To maintain resilience of populations of large pelagics and limit socioeconomic impacts, future fishery management advice needs to be robust to climate-driven biological responses. This will require improved understanding of species ecology across life stages, of the structure and function of the ecosystems they rely on, and of methods for including these factors in assessment and management.

Western Central Pacific Fisheries Commission (WCPFC) Manila, Philippines -Peter Flournoy

After a considerable amount of time and discussion the US apparently leaned a little on China and Chinese Taipei to be firm in their commitment to Forum Fisheries Agency (FFA( to agree to a Target Reference Point (TRP) in 2018.

The South Pacific Albacore (SPA) language that was adopted is:

- \* "WCPFC -14 agreed to prioritize the development and adoption of a TRP for South Pacific albacore through the following actions:
- \* All CCMs with an interest in the SPA fishery jointly commit to review available scientific and economic information to inform their position about appropriate goals for the fishery and corresponding candidate TRPs.
- \* Regardless of the results of the 2018 stock assessment and the management advice from SC14 to WCPFC, SC14 shall dedicate sufficient time in the Management Issues Theme to develop advice for WCPFC 15 on candidate TRPs.
- \* CCMs will work together in advance of WCPFC 15 to develop TRP proposals using whatever decision-making means are necessary.
- \* WCPFC 15 shall adopt a TRP for south Pacific albacore."

It took until almost IIpm on the last day of the meeting to arrive at this language, which actually is not that much different from what the Small Working Group (SWG) had agreed to, although it is clearly stronger.

Probably the best lesson learned from all this was that the US was prepared to take a strong position that the setting of TRPs was a subject to be decided by consensus, not by a vote.

The Plenary eventually adjourned at 3am.

Notice of a Public Meeting - Management Strategy Evaluation(MSE)

Sixth National SCS Workshop hosted by the Pacific Fishery Management Council January 17-19, 2018 in San Diego, CA

The Pacific Fishery Management Council is pleased to announce the Sixth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee (SCS6), to be held at the

Kona Kai Resort in San Diego, California, on January 17-19, 2018.

The meeting theme is "The Use of Management Strategy Evaluation (MSE) to Inform Management Decisions Made by the Regional Fishery Management Councils," with three subthemes: use of MSEs in evaluating and modifying harvest control rules; use of MSEs in investigating and accommodating uncertainty; and use of MSEs in adjusting harvest control rules in changing environments/non-static maximum sustainable yield (see the meeting agenda).

The meeting will be attended by representatives of the Scientific and Statistical Committees of the eight Regional Fishery Management Councils, staff from the eight Councils, and scientists from the National Marine Fisheries Service, as well as other scientists with expertise in conducting management strategy evaluations. A poster session will be held in conjunction with the workshop.

For meeting information, registration materials, and poster session details, please see the SCS6 website. The briefing book deadline for the SCS6 meeting is December 22, 2017. Meeting materials will be posted on the SCS6 website as they become available, with the full briefing book posted by the end of the year.

Please pass this notice to others who may be interested in attending or streaming the SCS6 meeting (the SCS6 website provides details on how to live stream the meeting).

If you have additional questions Please contact Mr. John DeVore, Pacific Council staff if you have questions regarding the SCS meeting. Mr. DeVore can be reached by email: John.DeVore@noaa.gov; telephone 1-866-806-7204, ext. 413.

PFMC - 12/08/2017

WFOA Members Obligation to AFRF Contributions: Under WFOA's bylaws you are required as a member to submit AFRF fees for any albacore landed to buyers that are non-AFRF contracted buyers. If you unloaded all or a segment of your catch to those AFRF buyers you need not submit to that portion.

Payments of USD \$20/ton can be made to:

American Fishermen's Research Foundation P.O. Box 992723 Redding, CA 96099

AFRF relies on funding such as yours to continue this unique organization that has been involved in cooperative research and public education for all North Pacific troll albacore fishermen over the past 46 years. It is extremely hard to show short term benefits of this contribution but without AFRF we may not have access to albacore grounds.

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

Check Us Out At: WWW.AFRF.ORG