## American Fishermen's Research Foundation News

Archival Tagging Data Project: This project is moving forward and Dr. Stephanie Snyder is now under contract to deliver for AFRF. She has begun consultations with Southwest Fisheries Science Center (SWFSC) and the project updates will be distributed as they come in. AFRF has been informed that the work on the first tag is nearly complete. AFRF is fortunate that others are contributing to this financially such as Oregon Albacore Commission and Central California Joint Cable Committee. We also expect support from NOAA to be finalized soon. AFRF is also exploring other funding options.

This project is needed and a cumulative effort from the past 16 years of tagging AFRF and SWFSC has done. There have been government funding issues for SWFSC and shortage of personnel to followup along that road has led to frustration for those at the science center as well as fishermen not being able to see useable results of this long undertaking. AFRF believes that a new chapter of cooperative research has been taken by AFRF and SWFSC to move ahead and make this a positive outcome for all involved. With the departure of some of the SWFSC personnel AFRF will take on more of the mechanisms of the tagging in general but look forward to redefining the future of albacore research. SWFSC plans to put together a tropical and temperate tuna summit this fall in San Diego to collect guidance on the future. AFRF looks forward to being a participant.

AFRF Outreach to Canadian Buyers: Canadian albacore buyers have not been involved with AFRF research the past 10 years or so as this was understandable given treaty and access issues. We are encouraged that a couple Canadian buyers have or may contract with AFRF for 2017 especially for the US albacore that is landed in Canadian ports. Both nations regardless if we are allowed to fish in each others zone now or in the future have the same common goals of maintaining access to the albacore fishing grounds through science and research applied to fair, equitable, and supportive management measures. The treaty fishing regime issues no matter how they work out in the future will still give each country opportunity to fish albacore. Regime or no regime the U.S. and Canadian albacore fishery will still be subject to international stock assessment, management, quotas, and regulations that need to be addressed by a united effort of the North American albacore fishing industry though funding and cooperation.

## ALBACORE RECOMMENDATIONS FROM THE IATTC SAC TO THE IATTC

1.1. Northern albacore tuna - The stock assessment of north Pacific albacore completed in April 2014 by the Albacore Working Group of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean

not overfished. The fishing mortality for the latest years in the assessment (F2010-2012) was estimated to be below that for F2002-2004, which had led previously to the implementation of conservation and management measures for north Pacific albacore by the IATTC (Resolution C-05-02, supplemented by Resolution C-13-03) and by the WCPFC (WCPFC CMM 2005-03). The Working Group noted that there

(ISC) concluded that the north Pacific albacore stock was not experiencing overfishing and was probably

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Henry deRonden WFOA was no evidence that fishing had reduced the spawning stock biomass below thresholds associated with most potential biomass-based reference points, and that population dynamics in the north Pacific albacore stock are largely driven by recruitment, which is affected by both environmental changes and the stock-recruitment relationship (a measure of the degree to which biomass and recruitment are interdependent). The Working Group concluded that the north Pacific albacore stock was healthy, and that the productivity was sufficient to sustain recent exploitation levels, assuming average historical recruitment in both the short and the long term.

A new full assessment was conducted in April 2017 by the ISC Albacore Working Group. Although the results have not been endorsed by the ISC Plenary, the IATTC staff concluded, based on the available information, that they do not contradict the management recommendations described above.

RECOMMENDATIONS: The current resolution (C-13-03) should be continued.

'... The IATTC therefore resolves that: All CPCs shall report to the Director by December 1st, 2013, using the template (attached in Annex A), a list of all their specific fisheries or fleets that had any catch of North Pacific albacore in the Convention Area during 2007-2012; whether or not those fisheries are targeting North Pacific albacore; Resolution C-13-03 North Pacific albacore and the average annual catch between 2007-2012 by gear type. In the case that a CPC cannot distinguish whether nor not its catch of North Pacific albacore occurred in the Convention Area, it shall report its catch of North Pacific albacore in the entire North Pacific. . . 'https://www.iattc.org/ResolutionsActiveENG.htm

68th Annual Tuna Conference, Lake Arrowhead - David Itano

Thanks to AFRF for supporting my attendance and participation in the 68th Annual Tuna Conference at Lake Arrowhead. Last year saw one of the smallest meetings in recent memory that caused some to cry about the end of the Tuna Conference and wonder if it was a meeting that could be sustained. I have seen many cycles of participation over the years and was not as concerned, but we left the 67th meeting with a charge to drum up support for higher attendance.

Maybe something worked as this year saw one of the highest attendance rates in recent memory with around 110 attending that required talks to be cut to 15 minutes maximum, including questions. It is a small meeting by general standards, but very valuable for being able to discuss tuna science with the top in the field. As you know, the meeting is so old because it was originally a show and tell forum for the NMFS and IATTC scientists to be able to present ongoing research and preliminary results to colleagues and to the US Tuna industry.

When I started going to the Tuna Conference, there were always guys from Starkist, Bumble Bee, Van Camp, the ATA (Auggie for many years), USTF, even Caterpillar and the odd retired tuna seiner captain or two. The first student scholarship was formed by an endowment from Captain Manuel Caboz, a seinerman from Point Loma. I really miss their participation as they didn't pull punches and would voice concern over the justification and purpose of some research approaches. They also had practical advice as they do. This year we had the usual tag manufacturers but there were some from industry with information on electronic monitoring gear.

There was only one oral presentation specifically on Albacore which was a study on the reproductive biology and condition of western Indian Ocean albacore. It appears to be a well done study that arrived at an L50 of 85.3 cm (33 inches). For those that aren't sure, an L50 value means the estimated Fork

Length of a female fish in a population where 50% of the females in that stock are reproductively mature. In most tuna, this value fills in symmetrically around this 50% value fairly quickly. For example, with an L50 of 100 cm, you may see almost all spawning females from about 75 to 125 cm (just an example!). An L50 is much more useful than a simple size at First Maturity which may just be reporting a tiny oddball fraction of the population that matures very early but contributes little to the population.

The study verified the common observation that males predominate at sizes above 100 cm. This by the way is due to the fact that females put so much into reproduction (egg maturation and production with repeated spawning) that their growth is actually arrested and they die younger. As usual, the males get off easy when it comes to having kids! The study confirmed multiple and repeated spawning over lengthy periods with each egg release (batch) consisting of up to 2 million+ eggs per batch. The study also examined lipid (fat) levels in liver, gonad and muscle tissue. There is a significant storage and stockpiling of lipids prior to the start of spawning and this study indicated that the spawning activity relies on these stored fats to maintain spawning more than additional energy gained by feeding during the spawning season. This is a different conclusion to work I have done with yellowfin tuna that suggests that intense feeding and areas of high productivity are necessary to maintain batch spawning activity.

The first talk of the meeting was by Allen Andrews from the Honolulu NMFS science center. He does age and growth work, especially on long lived fishes and has come up with really interesting results using the trace signals left in the environment from the above ground nuclear tests from 1946 - 1962. Think Bikini, Enewetak, etc.

None of this is harmful at these levels but they provide a windfall to life history studies. These tests are long over but the decay rate of the signal is very regular and can be measured in bony hard parts like otoliths. He used the method to age a 1245 pound blue marlin that the Maggie Joe sport fisher caught off Oahu at around 20 years (not for citation until published).

Why is this important? Well, its rare but very important to anchor the age of these extremely large specimens to get the max size and age in the population. It confirms earlier invalidated studies and constrains some higher invalidated age results, supporting that blue marlin are generally a fast growing, relatively short lived species.

This is good from a management perspective and likely why the stock is in reasonable condition despite decades of impact from longline fisheries. Basically a good thing for the stocks and for the fisheries, including the recreational fisheries. From a personal perspective, the blue marlin fishing off Hawaii is still very solid and lots of big fish are still caught.

El Nino - La Nina? Latest ENSO update with historical data as of May 22 2017

ENSO Alert System Status: Not Active ENSO-neutral conditions are present. Equatorial sea surface temperatures (SSTs) are near-to-above average across most of the Pacific Ocean. ENSO-neutral and El Nino are nearly equally favored during the Northern Hemisphere summer and fall 2017.

See this link for full presentation: http://tinyurl.com/z7jr4

New Scientific Organization Launches to Share Successful Fisheries Management Across Globe

SEATTLE (Saving Seafood) — June 5, 2017 — Fisheries in the U.S. and other parts of the developed world

have provided a blueprint for successful fisheries management globally, according to a newly formed scientific advisory group that plans to take the lessons learned from these successes and apply them to developing fisheries in the rest of the world. The organization, the International Fisheries Information Network (I-FIN), debuted ahead of this year's SeaWeb Seafood Summit in Seattle. Headed by internationally recognized marine scientists, economists, and fisheries managers, I-FIN hopes to be a global resource on where fisheries are being managed successfully, why they're successful, and how those successes can be adopted elsewhere. For Complete Story See: <a href="http://tinyurl.com/ycadwsjd">http://tinyurl.com/ycadwsjd</a>

Future Meetings& Workshops (2017) RFO-RFMO

ISC Plenary Meeting (ISC17): July 12-17; Vancouver, Canada IATTC Commission Meeting: July 24-28, Mexico City, Mexico

WCPFC Scientific Committee (SC13): Aug. 9-17; Cooks Island WCPFC Northern Committee (NC13): Aug. 28-Sept. 1; Busan, Korea

ISC 3rdMSE Workshop: October; Vancouver, Canada (PENDING)

WCPFC Commission Meeting (WCPFC14): Dec. 3-8, Philippines

**SCIENCE-INDUSTRY:** 

Tropical Tuna Summit: Fall 2017; San Diego, CA Temperate Tuna Summit: Fall 2017; San Diego, CA

Update on Albacore Troll Electronic Logbook (ELog) Development - John Childers.

The SWFSC and AFRF continue to seek a solution for an updated version of the albacore troll elog. They have received a number of good comments from fishermen who test filled out a prototype version. Some of there suggestions were incorporated into a newer version that can now be tested this season. Boats willing to test the new version should contact AFRF. AFRF and WFOA would like to see a version produced fishermen can use from now on that replaces their paper logbooks. AFRF and WFOA do not advocate replacing paper logbooks as mandatory but hope to overtime phase it in the more of the vessels to use depending on their capabilities and equipment.

American Fishermen's Research Foundation (AFRF) founded in 1971, is involved in the ongoing stock assessment of North Pacific albacore as well as the management and regulation in both hemispheres of the Pacific ocean. At considerable expense AFRF continues to represent the U.S. albacore trollers and baitboats at management and scientific forums, and continues to be involved in the scientific process through the International Science Committee - Albacore Working Group (ISC-ALBWG). AFRF represents all U.S. albacore trollers and baitboats in maintaining research and data collection that benefits ALL U.S. albacore vessels. AFRF is funded by a per ton assessment paid by AFRF contracted buyers. AFRF also secures research grant funding in cooperation with NOAA/NMFS for items such as archival tagging expenses.

AFRF Contracted Buyers: Bornstein Seafoods Inc., Bumble Bee Seafoods, 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

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