American Fishermen's Research Foundation News

Archival Tagging 2018: In September AFRF will try to deploy the 60+ tags that remain at the Southwest Fisheries Science center (SWFSC). One boat will be tagging with SWFSC technicians out of Oregon or Washington. Beyond this last batch of tags the SWFSC is looking at a more Pacific-Wide comprehensive research program on albacore and other tunas. How AFRF fits into this program remains to be seen. Our main goal remains sound science and research that will enable the U.S. fishermen through their representatives to management forums to defend their catch and access to the resource in a time when there is increasing competition from other nations.

Recovered Tags: AFRF had one tag recovered by a Taiwanese longliner in the western Pacific earlier this year. However, the crewman on deck saw the dart tag and pulled it out but did not remove the main tag inside the albacore or keep the fish. I actually communicated with the crewmans wife in the Philippines and figured he just wanted to get it in his pocket before the captain took it. Regardless all we know is the tag did find its way into the Wespac longline fishery after a couple years at sea.

There is also a case this season where a fishermen marked in a logbook the recovery of three tags. Vessel unloaded in Ilwaco in early August but we have no further information but are requesting buyers in Ilwaco check further. We suspect that the tags were actually parasites. But if you think it's a tag bring the fish in and keep separate.

If you catch any albacore with dart tags protruding from the albacore make sure to keep the whole fish and contact SWFSC as soon as possible. The reward is \$500.00 if recovered.

2018 Stock Assessment for South Pacific Albacore Highlights

The following is from the recent SC14 meeting in Busan, Korea. Positions adopted will be forwarded to the Commission meeting in Honolulu, HI, WCPFC15 in December.

SPALB Management Advice

SC14 noted that the preliminary estimate of total catch of south Pacific albacore (within the WCPFC Convention Area south of the equator) for 2017 was 75,707mt, which was a 33% increase from 2016 and a 13% increase over 2012-2016. (see SC14-WCPFC-2018/SA-WP-02). [adopted]

Preliminary catch for longliners in 2017 (72,785mt) was 34% higher compared with 2016 and a 14% increase over 2012-2016. Preliminary other gear (primarily troll) catch in 2017 (2,896t) was 17% higher compared with 2016 but a 1% decrease over 2012-2016. (see SC14-WCPFC-2018/SA-WP-02). [adopted]

Based on the uncertainty grid adopted by SC14, the WCPO albacore tuna spawning biomass is very likely to be above the biomass LRP and recent F is very likely below FMSY, and therefore the stock is not experiencing overfishing (100% probability F < FMSY) and is not in an overfished condition (100% probability SBrecent > LRP). [adopted]

SC14 recalled its previous advice from SC11, SC12, and SC13 that longline fishing mortality and longline catch be reduced to avoid decline in the vulnerable biomass so that economically viable catch rates can be maintained, especially for longline catch of adult albacore. SC14 recommends that this advice be taken into consideration when the TRP for South Pacific albacore is discussed at WCPFC15. [adopted]

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2018 stock assessment for South Pacific Albacore which has just been posted and released. The conclusion is quoted below.

Main stock assessment conclusions

For most of the models investigated, estimates of spawning potential, and biomass vulnerable to the various longline fisheries, have been stable or possibly increasing slightly over the past 20 years. This has been influenced mainly by the estimated recruitment, which has generally been somewhat higher since 2000 than in the two decades previous. Most models also estimate an increase in spawning and longline vulnerable biomass since about 2011, driven by some high estimated recruitments, particularly around 2009. For example, for the diagnostic case model, this has led to the spawning potential depletion ratio increasing from slightly less than 0.4 in 2011 to close to 0.5 in 2016.

While the key stock assessment results across all models in the structural uncertainty grid of this assessment show a wide range of estimates, all models indicate that South Pacific albacore is above the limit reference point (of 0.2SBF=0), with overall median depletion for 2016 (SB latest=SBF=0) estimated at 0.56 (80 percentile range 0.36-0.72). Likewise, recent average fishing mortality is estimated to be well below FMSY (median F recent=FMSY = 0.17, 80 percentile range 0.07-0.38), reflecting the very at yield curves in the vicinity of the maximum (Figure 49). We can thus conclude that South Pacific albacore is not currently overfished, nor is overfishing occurring.

The above conclusions bode well for the US South Pacific albacore fishery which lands about $\frac{1}{2}$ of one percent of the total catch.

NOAA Announces Series of Public Meetings on Strategic Plan

NOAA has announced that the agency will host a series of listening sessions around the country to provide information and receive stakeholder input on implementation of the Commerce Department's 2018-2022 Strategic Plan (including the development of priority objectives), with a focus on implementation of the Weather Research and Forecasting Innovation Act of 2017, reducing the seafood trade deficit, supporting maritime commerce, fisheries, recreation, and tourism.

The announcement notes that in carrying out the Strategic Plan, NOAA will work to help reduce extreme weather impacts in part through seasonal and sub-seasonal forecasts, expand marine aquaculture, reduce regulatory burdens for wild-caught fisheries, implement and enforce minimum standards for imported seafood, increased foreign market access for U.S. seafood products, expand precision maritime navigation products, increase ecotourism through the National Marine Sanctuaries Program, harness the deep sea through ocean exploration, and reenergize the National Oceanographic Partnership Program.

Meetings will take place as follows (West Coast Locations):

Friday, Aug. 31: Juneau, AK (topics: reducing seafood trade deficit and promoting maritime commerce and tourism)

Tuesday, Oct. 4: Seattle, WA (topics: implementation of Weather Act)

Friday, Nov. 9: San Diego, CA (topics: improving efficiency of U.S. ports, promoting domestic aquaculture production, and expanding exploration of EEZ)

See: <u>http://tinyurl.com/y79fkhng</u>

FUTURE SEAS MSE WORKSHOP REPORT- (Edited for space, contact AFRF for full copy)

Management Strategy Evaluation (MSE) Workshop for the NOAA OAR/NMFS Project "Future Climate Change and the California Current (Future Seas) - A Physics to Fisheries Management Strategy Evaluation" March 28, 2018, Scripps Seaside Forum - University of California San Diego, La Jolla, CA

Summary: A one-day management strategy evaluation (MSE) workshop in support of the NOAA funded Future Seas project was held March 28, 2018 in La Jolla, CA. Attendees included academic and government scientists as well as representatives of federal agencies (NMFS West Coast Regional Office; Pacific Fisheries Management Council), state agencies (California and Oregon Departments of Fish and Wildlife), non-governmental organizations (Monterey Bay Aquarium, Ocean Conservancy, Pew Charitable Trusts, Wild Oceans), and the sardine, swordfish, and albacore fishers (including the American Albacore Fishing Association, Western Fishboat Owners Association, and the American Fishermen's Research Foundation). The workshop began with an overview of the oceanography of the California Current followed by an introduction to the Future Seas project, including objectives, timelines, and deliverables. The bulk of the day was dedicated to discussions of issues surrounding each of three U.S. west coast fisheries - albacore tuna, sardine, and swordfish. The discussion was lively and productive and is detailed in this report. With input from all represented stakeholders, we were able to synthesize for each fishery the key management objectives, stakeholder priorities, performance metrics, and management strategies. These findings will guide the development and execution of the project and ensure that it addresses the concerns of stakeholders. While issues surrounding management of these fisheries can be contentious, attendees expressed appreciation for being involved in the early stages of the project and interest in follow-up workshops in the coming years.

Introduction: Management strategy evaluation (MSE) is a risk management tool used by fisheries scientists to assess, using computer simulations, the ability of different management rules to achieve specific management objectives. The project "Future Climate Change and the California Current (Future Seas) - a Physics to Fisheries Management Strategy Evaluation" led by scientists from both academia and NOAA was recently funded by NOAA's Climate Program Office (CPO) to conduct MSEs for sardine, albacore, and swordfish fisheries in the California Current. The primary objectives of this workshop were to (i) inform stakeholders of the project's objectives, methodology, proposed output, and timelines, and (ii) work together with stakeholders to identify management objectives, performance metrics, and potential management strategies for the three fisheries to be evaluated under this project. The purpose of this report is to document the discussions of proposed management objectives, performance metrics, and management strategies.

Albacore discussion: C. Barroso clarified that an IATTC resolution limits effort, defined as number of fishing days, to 2002-2004 levels. This is not very restrictive, but fishers are asked to report effort. It was suggested that an alternative management strategy to test in the MSE could be the termination of the Treaty. However, some participants felt that explicitly looking at the Treaty may be too political. Instead, it would be interesting to look at different management strategies for the CCS: open access, limited effort, or limited catch. D. Tommasi pointed out that those management scenarios would need to be linked to a Total Allowable Catch (TAC) or Total Allowable Effort (TAE) set via the international RFMOs. D. Tommasi is currently working on a separate North Pacific albacore MSE looking at potential harvest control rules setting TACs or TAEs at an international level and that the two MSEs could be linked together. However, the focus of the Future Seas albacore MSE is on assessing climate change impacts on albacore, particularly on distribution. It would be important to test polices that would allow US fishers access to the resource in case it moves further north than its recent concentration off Oregon and Washington.

Participants stated that modeling future changes in distribution would be important also for the recreational fishery as distance from shore of the main albacore fishing grounds strongly influences participation in the recreational fishery.

There was a discussion on historical trends in albacore distribution in the CCS and it was highlighted that the model being developed for this project would need to be able to resolve past variability in distribution. In the 1970s and 1980s albacore were farther offshore and in the 1980s were also in Canada. In the 1970s the main

albacore fleet was based in Southern California. Now, even when ocean conditions off California appear good, albacore don't seem to show up, but they are reliably found off Oregon every year. Some albacore fishers are still home ported in San Diego but mostly land in Westport, Washington. Also, in the last 10 years they haven't had to go outside the EEZ to fulfill their catch, which is more beneficial economically due to less time on the water reducing fuel and crew costs. As a performance metric, in addition to total US catch, one could look at catch by region/port.

In terms of socio-economic modeling, participants pointed out that 25-40% of the fleet use bait, and the rest jig. Anchovies have been abundant off OR/WA for the last 10-12 years and have been used as the main source of bait. It would be interesting to look at the overlap between anchovy and albacore and assess if that may change in the future, and what the economic impacts may be. The fleet also consists of different sizes of boats, with freezer capacity on the larger vessels. Ice-boats can only stay out 5-6 days and are more dependent on the fresh fish market. This information could potentially inform the fleet models being developed for the project.

Participants also highlighted that the fleet may be very different 30 years into the future given technology advances and increased knowledge of fish behavior. J. Sweeney stated that such changes can be simulated by increasing the efficiency of the economic production model.

Participants stated that albacore, as the only open access fishery left in the CCS, acts as an economic cushion if other fisheries are limited by local depletion or regulation. It is hard for most fishers to survive by participation in just one fishery. In the northern CCS, salmon and crab fishers switch to albacore when advantageous; in the southern CCS boats targeting swordfish switch to albacore. Such fleet dynamics portfolio strategies may need to be integrated into the simulations for the project. Given the lack of regulations governing the albacore fishery in the CCS, it was concluded that there is more interest in modeling socioeconomics, including the socioeconomic effects of changing albacore distributions. Figure 2 summarizes the potential management objectives, performance metrics, management strategies, and stakeholders' priorities that would inform the Future Seas albacore MSE highlighted during the albacore discussion.

ALBACORE:

1. Management Objectives / Stakeholder Priorities

- HMS FMP and those developed for the international albacore MSE
- Albecore as "insurance" fleet. As no limited entry serves to sustain fishers when other are curtailed
- Understanding migration dynamics, how number of juveniles in CC relates to the overall population
- Understanding pest changes in distribution, offshore-inshore as well as north-south

Albacore now eating anchovies. Anchovy used as bait so importance of assessing availability of anchovies

2. Performance Metrics

- Those developed for the international albacore MSE
- Catch by port
- Socio-economic metrics (e.g. revenue flows, fishery participation indices)

3. Management Strategies / Scenarios

- Management happens at international level (no international TAC/TAE but some being tested in international MSE)
- Given a TAC/TAE, test different management scenarios of how that is allocated to the CC fleet
 How will changes in albacore distribution impact the fishery, with a focus on the socioeconomics of the fishery

AFRF Contracted Buyers: Bornstein Seafoods Inc., Bumble Bee Seafoods, C2C Premium Seafood, Chicken of the Sea International, Da Yang Seafood, Driscoll's Wharf, Garibaldi Landing Fishermen, Hag Fish LLC, High Seas Tuna Inc., Interocean Fisheries, Island Trollers Inc., Albers / Jessie's Ilwaco Fish Company, JK Fisheries, J. DeLuca Fish Co., Ilwaco Landing Fishermen, Manabe & Co 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