

## American Fishermen's Research Foundation News ©

**Archival Tagging:** This will continue this season with one vessel late in the season. However some of the focus is to have SWFSC to hire an analyst to compile the years of tag data on file. There have been budgetary issues within NMFS and SWFSC. We have been informed that SWFSC has now hired a person to compile the data and work will begin in August.

The Archival Tagging program has been a very successful cooperative effort between industry and government and WFOA does not want it discontinued. The program is producing valuable information on albacore distribution and behavior unattainable by other means. We want this program to continue since it is providing a view on how albacore move and distribute and may be come increasingly important as RFMOs start to manage and eventually allocate the resource. There is a strong desire to get more archival tags into the central and eastern Pacific, and AFRF is being to explore means of securing long term funding for this project to insure its continuance. An initial effort is underway to meet with House members from coastal districts to inform them of the AFRF program and to enlist their help to secure adequate funding.

Be on the lookout for tags protruding from the albacore. Some have been turned in that were parasites but it is better to call AFRF (530-229-1097) or SWFSC (858-546-7192) and report any potential tag. Rewards are \$500 each.

**Onboard Sampling:** AFRF has 12 measuring troughs in the fleet but many are not being used because boats lack of participation in the albacore fishery in the past two seasons. We request that fishermen with the devices commit to do it in 2007 or turn in the troughs to get them on other vessels. AFRF will give a \$200/vessel stipend for measuring in 2007.

### MANAGEMENT ISSUES:

#### **North Pacific Albacore Stock Status and Outlook:** By Dr. Wespestad

The Report of the 2006 ISC - Albacore Working Group Stock Assessment Workshop held in Shimizu Japan last November. The workshop consisted of a review of fisheries by nation; review and discussion of catch, CPUE, and biological data; formulation and review of assessment models and evaluation of results; and development of a suite of potential biological reference points for determination of appropriate exploitation levels. The report of the Workshop was recently circulated for final comments from Workshop members and the results highlighted herein

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## Fisheries

For fisheries during the past five years Japan accounted for 66.7% of the total harvest, followed by fisheries in the United States (U.S., 16.4%), Taiwan (7.7%) and Canada (6.7%). Other countries targeting North Pacific albacore contributed 2.5% and included Korea, Mexico, Tonga, Belize, Cook Islands, Ecuador and longline catches from vessels flying flags of convenience. The total catch of North Pacific albacore for all nations combined peaked at a record high of 124,900 metric tons (mt) in 1999, but has declined over the course of the last several years and has averaged roughly 88,000 mt since the early 2000s; the 2005 total harvest of approximately 62,000 mt was the lowest observed since the early 1990s. The primary methods of harvest over the last five years were longline (36.0%), pole-and-line (37.5%), and troll (21.8%) Other gear accounted for roughly 5.5% of the total catch of albacore from the North Pacific Ocean.

In the U.S. North Pacific albacore fishery troll fishery, which accounts for 81% of albacore landings, the majority of the 2005 catch was concentrated along the North American coast. The fleet continued a trend of decreased albacore catch and fishing in the mid Pacific Ocean and east of the International Date Line that started in 2004. Total albacore catch for U.S. North Pacific troll fishery was 13,346 mt in 2004, and declined to 9,122 mt in 2005. The number of vessels operating in the fishery decreased from 734 in 2004 to 652 in 2005.

U.S. longline fleets based in Hawaii and California reported catching 277 metric tons (t) in 2005, a reduction from the 560 t landed in 2004 and well below the peak catch of 1,652 t in 1997. Some of the catch was taken by the single vessel based in California, but most was recorded by the 124 active longline vessels based in Hawaii using shallow-set gear directed at swordfish or gear deployed deeper in the water column for bigeye tuna. The total fleet size has remained fairly stable over the past several years. The nominal effort by the U.S. fleet was about 35.1 million hooks in 2005, exceeding the 32.4 million hooks deployed in 2004.

In 2005, 208 Canadian vessels operated in the North Pacific and caught 4,810 mt of albacore in 8,525 vessel days of fishing for a CPUE of 0.56 mt/vessel-day. Estimates for 2005 are considered preliminary. Both catch and CPUE have followed an increasing trend over the period 1995-2004 and then dropped in 2005. As in previous years, most of the 2005 catch was taken within 200-miles of the North American coast. The Canadian representative reported that the database for the Canadian catch and effort data is being examined to document the relationships between trip logs, sales slips and hail catch and a technical report will be forthcoming.

Total catches by the Japanese fisheries were 57,900 t in 2004 and decreased to 38,255 t in 2005. Pole-and-line catches were 32,255 t in 2004, and decreased to 16,883 t in 2005, the lowest reported catch during the last decade. The catch fluctuated ranging between 17,000-50,000 mt in the last decade. Longline albacore catches were 17,547 t in 2004 and 19,615 t in 2005. The catch shows a declining trend since 1996 when the catch peaked at 39,000 t. The longline fishery consists of an offshore longline and a coastal longline fishery; in recent years the catch in both fisheries show a declining trend in recent years. The Japanese explained that some of the decrease may relate to the way data is aggregated and low returns of logbooks and extrapolation of effort.

No information applicable to recent fisheries were received from Korea, Mexico, or Chinese Taipei at the time of the Working Group meeting.

### Stock Assessment

For stock estimation two models were run utilizing different configurations of data and assumptions; one standard, and a newer more flexible model. The model results generally agreed, but the results from a run of the standard model were selected as the best representation of albacore stock trends using the available data. The model estimated 'exploitable' (fishable) stock biomass fluctuated around 150,000 mt from 1966-94, and peaked in 1996 at 226,000 mt. From 1997-2003, exploitable biomass declined to 161,000 mt, with a slight upward trend observed over the last few years with a 2006 estimate of roughly 180,000 mt. The 2006 fishable biomass is roughly 7% above the time series average of 169,000 mt (1966-2005). due to strong recruitment in 2002 and 2004.

Projection of the 'exploitable' biomass from 2006 to 2020 shows a gradual decline to an equilibrium level of roughly 126,000 mt under an average production of 27.75 million age-1 fish per year. However, this trend is highly dependent on the future pattern of recruitment.

### Biological Reference Points

The Working group continued to explore current levels of fishing mortality and biomass relative to the most commonly used reference points for contemporary fisheries management. The Working group noted that evaluation and selection of preferred reference points is a task for the future and should be done by consensus among scientists, fishery managers, and stakeholders.

Under the 'current' level of  $F$ , the population is being fished at roughly  $F17\%$  (i.e.,  $F_{2002-2004} = 0.75$ ). These results are generally similar to the previous assessment conducted in 2004. This level of fishing mortality is high relative to commonly used reference points and often associated with overfishing thresholds in various fisheries world-wide.

A fishing mortality-based reference point (FSSB) designed to ensure that future spawning stock (SSB) remains within the range of the historical 'observed' SSB was introduced at the ISC Plenary Session in 2005. If scientific advice should be considered based on the result of FSSB analysis, future SSB can be maintained at or above the minimum 'observed' SSB (60,000 t in 1966) with  $F$ 's slightly higher than the current  $F$ . However, there is a high degree of uncertainty in these numbers.

The Working Group, based on the available data, reported concern that that albacore may be being fished at too high a level. There was concerns about the North Pacific Ocean-wide decline in total catch over the course of the last two years, particularly in 2005, when the total harvest (roughly, 62,000 mt) was the lowest recorded since the early 1990s. The Group recognized that 2005 data were preliminary and economic factors may play a part in the decline, but recommended that need for nations to closely monitor the population over the coming years to ensure the stock is responding favorably to present fishing practices in the North Pacific Ocean.

The next stock assessment is in 2008 with a preassessment meeting in 2007 to examine CPUE trends used in the models and further analysis of biological reference points.

**Request from NOAA/NMFS to report leatherback sightings:** Scott Benson of NOAA and the Marine Turtle Research Program. Are conducting investigations of sea turtle abundance, distribution, and habitat, and I focus specifically on leatherback turtles that migrate to US west coast foraging grounds from Indonesian nesting beaches. They perform aerial surveys over coastal waters and conduct satellite telemetry projects to obtain distribution, abundance, and movement data for leatherbacks.

At present, our knowledge of leatherback distribution is limited to our monthly aerial surveys over relatively shallow water (<90 meters), although I occasionally receive sighting information from whale watch operators and independent fishers. Sighting information from outside sources has been very valuable for to understand timing of leatherback arrival and departure from west coast waters, and has helped locate animals for capture and subsequent release with satellite transmitters.

NOAA seeks assistance to enhance our knowledge of leatherback occurrence, particularly over deep, offshore waters. If anyone want to send in information, please send it to AFRF at <[afrf530@charter.net](mailto:afrf530@charter.net)>, or 530-229-1097.

**AFRF NOTE:** This may be important information. Sea turtles are a very emotionally charged subject with many groups that have closed whole fisheries down with very little interaction. Thus, far there is no evidence of takes on regular albacore troll or live bait gear. In order to stay abreast of any developing situation, AFRF will collect the information, if any, from fishermen, and then forward the information to NOAA-Fisheries.

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American Fishermens Research Foundation was founded in 1971 and continues to promote research and education for Pacific albacore specifically troll and baitboat caught. AFRF's projects such as archival tagging and selenium research benefit ALL troll/baitboat albacore fishermen. We appreciate all of the support over the years from processors and fishermen alike.

**AFRF Buyers:** The following have signed AFRF contracts, and WFOA members selling to others not listed here are responsible to pay the \$20/st AFRF fees. In reality if you do sell to a non-AFRF buyer they should pay you \$20 more per ton to cover this, otherwise they have a \$20 advantage over all that have signed:

Arrowac Fisheries, Bluewater Fisheries, Bumble Bee Seafoods, Carvalho Fisheries, Chicken of the Sea International, Driscoll's Wharf, Interocean Fisheries, Island Trollers Inc., Jessie's Ilwaco Fish Company, Mary-Lu Seafoods, 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.

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