



American Institute of Fishery Research Biologists

Promoting excellence in fishery science

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... BRIEFS ...

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From the President

Some thoughtful members asked me if I thought that the number of members was a major issue for us. I was inclined to say that it was not, but I think the number and diversity of our membership is an index of our influence in fisheries research. We have two brochures that identify who we are and the benefits of membership. We are trying to send the brochures electronically to all members with email or mail them to members who do not. Please give the brochures to young and old colleagues who you think may be interested in AIFRB. When I travel around North America, I ask people if they would like to join AIFRB and many are interested. A few have even requested membership. This interest tells me that a personal contact from each of our members could introduce AIFRB to people who will appreciate our goals.

Best Wishes for 2009!

Dick Beamish

Hilborn, Gracious Recipient of Outstanding Achievement Award

Dr. Ray Hilborn of the University of Washington and recipient of the Institute's Outstanding Achievement Award for 2008, upon notification of his recognition, responded:

"It is especially pleasing to receive such an honor from the professional group that represents my true peers in the profession. I am very pleased to receive this award because it means I am 'still living'. And when I opened up the registered letter from the Pacific Biological Station, it was not, as I expected, a subpoena to appear at some contested fisheries meeting, but a very gracious letter from Dick Beamish telling me I was be honored with this award."

Thanks to Kate Myers for this submission. Ed.



*Ray Hilborn, recipient of
Outstanding Achievement Award 2008*

The \$75,000 Fish

A Member at Work: Jerry Ault

Florida bonefish generate big bucks

By Steve Wright

Islamorada, Fla. - How much is that bonefish worth in the Florida Keys? Would you believe \$75,000?

No, this is not some tagged single bonefish that's part of a fishing contest. That's the value of every single bonefish larger than 14 inches swimming in these Florida saltwater flats. That monetary value came from studies conducted by AIFRB Fellow Dr. Jerry Ault of the University of Miami's Rosenstiel School of Marine and Atmospheric Science. The \$75,000 figure was recently published in the Oct./Nov. edition of *In-Fisherman* magazine. Mike Larkin, who is working on a doctorate degree under Ault, recently participated in the ESPN Outdoors Saltwater Series Redbone Key West S.L.A.M. Larkin and his fishing partner that weekend, former NFL offensive lineman Mark Cooper, managed to land three bonefish one day. And Larkin added a small tag just behind the dorsal fin of each bonefish before it was released. Funded by Bonefish & Tarpon Unlimited, Larkin's tagging study is just another example of adding to the database for Florida's valuable bonefish.

The \$75,000 figure is based on a combination of population studies and tourism dollars generated through the pursuit of one of The Keys most sought-after species. Ault's 2007 population work indicated there are approximately 350,000 bonefish in the Florida area.

"Bonefish bring in about \$1 billion annually in tourism to the Florida economy," Ault said in the *In-Fisherman* story. "That's about \$75,000 per fish over its lifetime." Larkin, like several guides along the Florida coast, is trying to tag as many fish as possible after they are caught and before they're released. The tagged fish add data to that Ault has accumulated over the years and help give further indication of the overall health of the species here, and the health of the entire ecosystem. Bonefish are a "canary in the coal mine"; when they thrive, it can be assumed the entire environmental system is in good shape, assuring good fishing for all the fish species using these waters. Larkin admits that the 350,000 figure is a baseline number. It doesn't have near the accuracy of the omnipresent pre-Presidential election polls over the past year in the U.S.

But by sampling the data annually, it's a good baseline to work with. The goal now, with the help of more and more tagged bonefish, is to increase the accuracy of that number.

The tourism figure of \$1 billion per year to the Florida economy is less open to questioning, though there's no doubt bonefish are one of The Keys' most sought-after species. Catching the saltwater "slam" of a bonefish, a permit and a tarpon can be the quest of a lifetime for dedicated Florida flats anglers. And in many cases, the wary bonefish, also known as the gray ghost, can prove the most elusive.

Brooke Denkert is a 23-year-old student majoring in estuary ecology at Florida Gulf Coast University in Fort Myers. Her mother and father, Linda and Dave, are frequent Redbone Series competitors and Linda is a multiple-time Ladies Champion. When Brooke had the opportunity to dissect a fish during a college class, she chose a bonefish. And it proved to be an exercise that made her a better angler, in addition to developing a new appreciation for the species. "Their eyes are huge, and they are a lot better positioned for looking up than down," Brooke said. "Their eye-size in proportion to their body size is really high. "There's no doubt they can see us (when we're fishing for them)," she said. "If you're wearing a red shirt on a clear day, you might as well give up." It was partly strategy — seeking redfish on Day One of Saturday's Redbone event at Islamorada. The anglers will concentrate on bonefish Sunday in attempting to achieve the two species "slam" required here.

You couldn't also help but see the wariness of gray ghosts on the results board Saturday: redfish caught and released by the 51 two-angler teams — 109; bonefish caught and released — five. Those are figures that only further support that \$75,000 value placed on every adult Florida bonefish.

For more information on how to support the continued health of the bonefish population, see the Bonefish & Tarpon Unlimited Web site at www.tarbone.org.

From: ESPN Outdoor Online

NOAA Vessel, AIFRB, and the History of Oceanography

by Allen Shimada, Peter Fricke and R.B. Montgomery

Three AIFRB Fellows have been honored by the naming of NOAA Research Vessels. The *R/V Oscar Elton Sette* (a founding Fellow) (R335) currently serves the Pacific Islands Fisheries Science Center and itself replaces the *R/V Townsend Cromwell* (R443) in service from 1963-2002. The *R/V Wilbert Mcleod Chapman* (a founding Fellow) (R446) served the Alaska Fisheries Science Center from 1950-1998. Finally the *R/V Bell M. Shimada* (Fellow) (R227) recently began serving the Northwest Fisheries Science Center and Southwest Fisheries Science Center. Following are biographies of Bell and Cromwell.

Bell Masayuki Shimada (1922-1958)

In his brief 12-year career as a fishery research biologist, Bell Shimada made a distinctive mark in the study of Pacific tropical tuna stocks. Working with interdisciplinary teams of biologists, chemists and oceanographers, as a researcher and then team leader, Bell Shimada developed and published much material on the distribution, spawning and feeding patterns of tuna. He also coordinated international data collection and studies for the Inter-American Tropical Tuna Commission. A mark of his important contributions to the development of his field is the dedication of the Proceedings from the Symposium on the "The Changing Pacific Ocean in 1957 and 1958," in his memory, and the naming of a seamount-Shimada Seamount, southwest of Baja California-in his honor.

Born in Seattle, WA of Japanese immigrant parents, Bell Shimada excelled as a student at mathematics and science and graduated from Franklin High School in June 1939. He entered the University of Washington's School of Fisheries in September 1939 and studied there until April 29, 1942, when he was "evacuated," as were many other Japanese-Americans at the time. In May 1943, he was permitted to enlist in the U.S. Army as an infantryman and was sent to Camp Shelby, Mississippi for basic training. He was selected for Japanese language and intelligence collection training in August 1943 and transferred to Camp Savage, Minnesota. In April 1944, he was transferred to the U.S. Army Air Force in Orlando, Florida and received three months of air intelligence training before being transferred to Honolulu, Hawaii as a translator/interpreter. Bell Shimada remained in Hawaii until May 1945 when he was transferred to Guam as a radio traffic monitor, and then moved in August 1945 to the U.S. Army Air Force headquarters in Tokyo. His task in Tokyo was to collect and synthesize economic and infrastructure data on the effects of strategic bombing, a task he continued until he was discharged from the military in February 1946. After the war, Bell

Shimada remained in Japan as a Fishery Biologist (P-2) employed by the Fisheries Division, NRS, SCAP, Tokyo until December 1946. In this research and analytical position he compiled and collated data obtained on Japanese fisheries activities. Bell Shimada had a major hand in drafting directives to the Japanese government, particularly on whaling. His first professional publication, Japanese Whaling in the Bonin Islands Area (U.S. Fish and Wildlife Service, Fishery Leaflet No. 248 (1947)), grew out of the whaling studies and reports written in Tokyo. Bell Shimada then returned to the College of Fisheries, University of Washington and completed his remaining year of course work, graduating cum laude on December 20, 1947. During this year he worked a laboratory technician for the School of Fisheries and maintained the School's ichthyology collection. He remained at the School of Fisheries to work on his master's degree and worked as laboratory assistant for the Atomic Energy Commission maintaining aquaculture facilities. Bell Shimada graduated with his masters of science in fisheries in December 1948.

He had begun working for the Bureau of Fisheries, U.S. Fish and Wildlife Service, in September 1948 as a GS-9. From December 1948 through January 1951, Shimada worked for the Pacific Oceanic Fisheries Investigations, Honolulu, Hawaii, as a seagoing biologist in charge of science watches and research on research vessels. During this time he worked with many of the leading scientists in his field and in oceanography, including Elton Sette, Wilbert Chapman, Roger Revelle and M.B. Schaefer. He also encountered many of the younger scientists who would be colleagues during the next decade; these included Townsend Cromwell, Fred Cleaver, Warren Wooster, Alan Tubbs, William Aron, Gerald Howard, Richard Hennemuth, Howard Yoshida and Tom Hida.

While he was in Hawaii, Bell Shimada also met and married Rae Shimojima. Rae was born in Portland, Oregon. After a brief internment at the beginning of WWII, she began working as a clerk/typist for U.S. government agencies, eventually moving to Washington, D.C. and the U.S. Fish and Wildlife Service's Bureau of Fisheries. During visits to Washington in 1946-1947, Elton Sette recruited her for the new Honolulu Laboratory of Pacific Oceanic Fishery Investigations, and she moved there as his secretary. During this time, Bell Shimada had taken graduate courses while in Honolulu and then, returning to the United States, he spent 1951 taking doctoral courses at the School of Fisheries, University of Washington. He completed his doctorate in 1956.

In February 1952, Bell Shimada moved from the Bureau of Fisheries to the Inter-American Tropical Tuna Commission in La Jolla, California, and began the tuna work for which he is recognized. Working with M.B. Schaefer and Gerald Howard, Shimada began publishing his research and achieving international and national recognition. He rapidly moved up the hierarchy of the Commission and was Senior Scientist for the last two years before his death in 1958. The Commission was co-housed with the Scripps Institute for Oceanography and the Bureau of Fisheries laboratories, and drew on those institutions for scientific ideas, manpower, and cooperative ventures. Bell Shimada and Townsend Cromwell frequently worked together, first at POFI and then at IATTC, on research involving the distribution of tuna throughout the Pacific Ocean. A physical oceanographer, Cromwell was interested in currents and their driving forces, such as temperature gradients, while Shimada was concerned with the availability of forage for the tunas. Linking this work together proved to be productive for both men. In 1957 they worked on the Island Current Study off Clarion Island, and were en route to join their research party, aboard the Scripps *R/V Horizon*, for the second year of work when they died. Their plane crashed near Guadalajara, Mexico on June 2, 1958. This cruise was to have been the last for Shimada with the Commission, since he had been appointed to direct the new Bureau of Fisheries' Eastern Pacific Tuna Investigations and was to have taken up his post in July 1958.

By Peter Fricke, National Marine Fisheries Service, NOAA, Silver Spring, MD

Townsend Cromwell (1922-1958)

Townsend Cromwell was an oceanographer who discovered the Cromwell current whilst researching drifting in the equatorial region of the Pacific Ocean. He was killed in an airplane crash on 2 June 1958 while en route to an oceanography expedition. The accident, also fatal to B. Shimada, occurred near Guadalajara as these men were en route to join the Scot Expedition at Acapulco. Cromwell was Senior Scientist with the Inter-American Tropical Tuna Commission and Research Associate at Scripps Institution of Oceanography, La Jolla, California. His field of work was the physical environment and its relation to fisheries. He became a weather officer in the Army Air Force during World War II. After receiving a B.A. degree from University of California (Los Angeles) in 1947, he returned to La Jolla, his boyhood home, as a student at Scripps, receiving an M.S. degree in oceanography from the University of California (La Jolla) in 1949. At Scripps he was strongly influenced by H.U. Sverdrup.

From 1949 to 1953 he was Oceanographer at Pacific Oceanic Fishery Investigations, Honolulu, O. E. Sette, then Director, and Cromwell initiated a far-sighted and intensive survey of the physical and biological characteristics of Pacific equatorial waters, which had been the subject of much speculation but little observation. For many months he participated in the field work from the *R/V Hugh M. Smith*, and for more and harder months he carried out the analysis of the observations. As a result of this pioneering work, the knowledge of the physical and biological structure of the equatorial Pacific Ocean has been vastly advanced. These achievements are the more remarkable when one notes that comparable surveys of the equatorial Atlantic and Indian oceans are still lacking.

Cromwell confirmed the existence of upwelling at the equator, disproved the existence of upwelling at the northern edge of the Equatorial Countercurrent, and originated a reasonable model of wind-induced current transport in the equatorial zone (J. mar. Res., 1953). During these studies he recognized the significance of the unexpected drift of long-line fishing gear at the equator, and in 1952 he led a *Hugh M. Smith* cruise using drogues in current measurements. Thus, he was responsible for the discovery of the Equatorial Undercurrent (Science, 1954) the fourth member of the equatorial current system (the North Equatorial Current, Equatorial Countercurrent, and South Equatorial Current having been known for a century).

The existence of the Equatorial Undercurrent has been amply confirmed, during measurements completed a few days before Cromwell's death, by his colleagues J. A. Knauss and J. E. King (Nature, 182, 1958). One result of four years in close collaboration with W. S. Wooster is a joint publication, in color, of a systematic analysis of data from the eastern tropical Pacific Ocean (Bull. Scripps Inst. Oceanogr., 1958). The subject that aroused Cromwell's keenest interest is the structure and formation of oceanic discontinuities, both fronts and thermoclines (Tellus, 1956; Bull. Inter-Amer. Trop. Tuna Comm., in press). His work was characterized throughout by close collaboration with his associates, who became his devoted friends. His personal charm and modesty, together with his scientific interest, led a number of oceanographers to join his field of activity. These include E. D. Stroup, G.W. Groves, and myself.

Townsend Cromwell was born 3 November 1922 at Boston, Massachusetts, one of two sons of Richard and Lucile Cromwell. He married Katharine Huchthausen in 1947. Their children are Victoria, Katharine, Townsend, Carol Eugenia, and Elaine.

By R. B. Montgomery, Chesapeake Bay Institute, Johns Hopkins University, Baltimore, MD

And Another Famous Vessel:

NOAA Fisheries Research Ship *Albatross IV* is Retired

The NOAA research ship *Albatross IV* was decommissioned on November 20, 2008, ending its distinguished 45-year career in service to the nation. The vessel sailed over 655,000 miles on 453 research cruises, primarily fisheries surveys off the northeastern coast of the United States. These surveys created the world's longest continuous study of fish population data.

NOAA's new fisheries survey vessel, the *Henry B. Bigelow* is replacing the *Albatross IV*, ensuring the collection of important ecological data goes uninterrupted.

"*Albatross IV* is the grand old lady of the NOAA fleet," said William J. Brennan, Ph.D., acting under secretary of commerce for oceans and atmosphere and acting NOAA administrator. "I am proud to be one of the scientific crew members that sailed aboard this vessel that contributed significantly to our extensive knowledge about important fishery stocks and the marine environment off the Northeast."

The *Albatross IV* is the most recent of four vessels sharing the same name sailing from Woods Hole since 1883. The original *Albatross* was the first to be built exclusively for marine research by any government. Built in 1962, *Albatross IV* was the first vessel in the modern ship-building era, and continued the long scientific tradition established by the first three *Albatross* vessels. "More than 2,400 people sailed aboard the *Albatross IV*, some working their entire careers with the vessel," said Rear Admiral Jonathan W. Bailey, director of the NOAA Corps, one of the nation's seven uniformed services, and director of NOAA's Office of Marine and Aviation Operations. "We are sad to see her go, but look forward to continuing this important work with the *Henry Bigelow*, a ship that is as much a quantum leap forward in capability for us now, as was the *Albatross IV* when it entered service back in 1963."

For most of her service life, the 187-foot *Albatross IV* conducted sampling and research cruises across the Northeast continental shelf in support of NOAA's Northeast Fisheries Science Center. Her key projects included annual spring and autumn groundfish and sea scallop trawls. The magnitude of information collected by a ship like the *Albatross IV* can be overwhelming. During each cruise, fish and invertebrates are sorted on deck by species. The data about each fish, such as its sex, weight, length, and stomach contents are recorded. Oceanographic data are also collected by sensors, both shipboard and deployed. A typical fishery resource survey cruise takes about 45 sea days. *Albatross IV* also was a "school" for software engineers, who developed a computerized system for fisheries data collection with scientists from NOAA's Northeast Fisheries Science Center during the annual trawls. The ship then served as the test platform in 2001 for the automated system that signaled the end of nearly four decades of pencil and paper data recording aboard NOAA fisheries ships in the Northeast. The successful tests aboard *Albatross IV* led to installation of the system across the NOAA fisheries fleet.

As part of the fleet of NOAA research and survey ships and vessels, *Albatross IV* was operated, managed, and maintained by officers of the NOAA Corps, masters and wage mariners under NOAA's Office of Marine and Aviation Operations. Her last captain was Master Stephen Wagner, a resident of Woods Hole, Mass.

NOAA Press Release



NOAA Ship *Albatross IV*

A Scallop Follow-Up

Bounty Lies Ahead

Scallop fishermen on the East Coast can look forward to a big catch of the succulent shellfish a few years from now, a recent survey of sea scallops from Massachusetts to North Carolina suggests. The survey, conducted by the National Oceanic and Atmospheric Administration's Northeast Fisheries Science Center in Woods Hole, found a spike in the number of young scallops or "recruits" that keep a fishery thriving. After six poor years for recruits, Georges Bank, a prime fishing ground stretching from Newfoundland to Cape Cod, had its highest number of the small scallops since 2000, and the mid-Atlantic region had nearly its highest population of them since 1979.

From the Boston Globe

Two Losses

Norman J. Abramson

May 4, 1927-September 27, 2008

Norm Abramson's first employment in fisheries was as a deck hand on a California Department of Fish and Game (CDFG) patrol boat. This experience, and his love for fishing, led him to enroll at the University of Washington, where he majored in fisheries. While there, he became particularly adept at statistics, which he studied under the late Dr. Douglas G. Chapman. After graduating in 1957, he returned to California to work for the CDFG at its Terminal Island laboratory in Long Beach. Much of his early work was focused on statistical analyses, particularly sampling, age and growth, probabilistic fish surveys, and ocean shrimp assessment.

In 1970, he took a short leave of absence from the CDFG to work for the Food and Agriculture Organization of the United Nations (FAO) in Rome, where he published a package of 15 fisheries assessment computer programs written in FORTRAN and based on his work at the CDFG during the mid-1960s. Among these was one that could be used to separate length frequencies into age frequencies by fitting normal distributions, which eventually led to programs such as ELEFAN and MULTIFAN (written by others) that have been widely used in stock assessment. After that he worked at the Southwest Regional Office of the U.S. National Marine Fisheries Service (NMFS) in Long Beach, California, for two years. He then moved to the NMFS Tiburon Laboratory to work on the implementation of the Fishery Conservation and Management Act (FCMA). When Richard Shomura, then Director of the Tiburon Laboratory, left for Honolulu in 1974, Brian Rothschild, then Director of the U.S. NMFS Southwest Fisheries Science Center, appointed Norm to take Richard's place. Norm held that position until 1988, when he went on an Interagency Personnel Agreement loan to the CDFG in Long Beach during 1988-1989, after which he retired.

In recent years, Norm suffered from osteoporosis, and he had knee replacement surgery in 2007. He recovered well from that surgery, but in June 2007 his right hand weakened, and it was thought that this was caused by bleeding near his spinal cord. He had surgery to cauterize the bleeding, but his condition continued to deteriorate. He died at his home in Kentfield, Marin County, California, in September 2008 of amyotrophic lateral sclerosis (Lou Gehrig's disease).

Norm's production of publications was modest, but because of his facility with quantitative approaches at a time when there were few such people in fisheries, he had a great and beneficial influence on fishery science. He was always modest and soft-spoken, and he apparently never got excited or angry—a true gentleman.

He is survived by his wife, Joan, daughter, Jill, and two grandchildren, Aiden and Maya.

Submitted by Bill Bayliff

And a Non-Member but Known to Many

Warren Wooster

Warren S. WOOSTER Beloved Professor and Distinguished Ocean Scientist. In the early morning hours of Wednesday, 29 October 2008, Warren Scriver Wooster, passed away in his sleep at 87 years of age. He was a (so-called descriptive) chemical and physical oceanographer (B.S. Brown 1943, M.S. Cal. Tech. 1947, Ph.D. Scripps Institute of Oceanography, University of California 1953), later a fisheries oceanographer, and from 1976-1991 was a professor of marine studies and fisheries at the School of Marine Affairs of the University of Washington, from which he retired as Emeritus Professor. For many decades on the national and international stages he struggled to bring the twains, oceanography and fisheries, closer together. He published about 50 papers on oceanography including fisheries and more than 40 on marine affairs. He was an efficient but tactful, persuasive and patient negotiator on many planes, not easily discouraged by adversity, and trusted by students and colleagues at home and abroad. He distinguished himself in many facets of ocean science and held the offices of: Director de Investigacion, Consejo de Investigaciones Hidrobiologicas of Peru (1957-58); first Secretary of UNESCO's Intergovernmental Office of Oceanography (1961-63); chairman of the Graduate Department of the Scripps Institute of Oceanography (1967-1969); Dean of the Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, FL (1973-76); first Secretary of the Scientific Committee for Oceanic Research (SCOR) of the International Council for Scientific Unions (1963-67) and President (1968-73); Chairman of the Ocean Sciences Board of the U.S. National Academy of Sciences/National Research Council (1978-81);

President of the International Council for the Exploration of the Sea of 1901 (ICES, 1982-85); and Director of the Institute of Marine Science, University of Washington (1979-82). Finally, he was the principal founder (and widely recognized as father) of the North Pacific Marine Science Organization of 1992 (PICES, for Pacific ICES) and served as its first chairman (1992-96). He was a fellow of the American Geophysical Union and the American Meteorological Society. Warren was a great teacher, wonderful friend and father, and admirable human being. He met his wife Polly on a blind date after the war, they fell in love, and were married in a grand partnership for 60 years. He is survived by Polly and their three children (Sue, Dana and Dan), seven grandchildren, one great grandchild and a sister Margaret Freeman. Warren, Polly and the kids had many adventures living and traveling in the world. Warren loved the adventure and camaraderie of doing research at-sea and he was dedicated to understanding the ocean and its resources, and using that knowledge to contribute to a better Earth. In lieu of flowers donations to the Seattle Cancer Care Alliance are preferred.

Seattle Post - Intelligencer Obituary

Comments by Roger Hewitt

Warren was an inspiration to many of us with his warm and generous attitude, his cutting wit, and his uncanny ability to pick out gems (both ideas and people). He participated in the famous 1958 CalCOFI Symposium held in Rancho Santa Fe on the Changing Pacific Ocean and made the very noteworthy suggestion that El Nino (a term then used to describe a local conditions periodically observed off Peru) was the result of a relaxation of equator-ward winds and that this was a more general phenomena that could occur in both hemispheres. Jerome Namias followed up in the verbal discussion by suggesting that there may be a teleconnection between the north Pacific anticyclone and its southern hemisphere counterpart. As a result of this remarkable meeting, El Nino and its association with the Southern Oscillation became part of both the scientific and popular jargon.

The Symposium papers and recorded discussion were published in CalCOFI Reports Vol. 7 and are noteworthy for their informal nature and the sense of scientific excitement expressed by the participants. Oscar Sette and John Isaacs were the editors and dedicated the Symposium volume to Townsend Cromwell and Bell Shimada, who died in plane crash that year en route to collect more observations in the tropical Pacific. The proceedings are introduced with the following poetic words:

By the fall of 1957, the coral ring of Canton Island, in the memory of man ever bleak and dry, was lush with the seedlings of countless tropical trees and vines. Two remarkable and unprecedented events gave rise to this transformation, for during 1957 great rafts of sea-borne seeds and heavy rains had visited her barren shores. One is inclined to select the events of this isolated atoll as epitomizing the year, for even here, on the remote edges of the Pacific, vast concerted shifts in the oceans and atmosphere had wrought dramatic change. Elsewhere about the Pacific it also was common knowledge that the year had been one of extraordinary climatic events. Hawaii had its first recorded typhoon; the seabird-killing El Nino visited the Peruvian Coast; the ice went out of Point Barrow at the earliest time in history; and on the Pacific's Western rim, the tropical rainy season lingered six weeks beyond its appointed term. The meteorology of the North Pacific was most unusual, with intensification of the North Pacific low and slackening of the winds along the California Coast. In regions of the Pacific where intensive oceanographic measurements were being carried out, investigators were sharply aware of changes. Over much of the eastern North Pacific water temperatures were as much as three degrees centigrade higher than normal, and in the California current, more than four times the solar heat actually received, would have been necessary to account for the warming. This widespread variation in the weather manifested itself dramatically on a local scale. At La Jolla, for example, the temperature of the sea surface reached the highest averages during July, August, and September of 1957 in 21 years. Southern California had one of its rainiest autumns in several years. Throughout the summer reports came in of the appearance in quantity of fishes that in recent years had been caught only as stragglers: by the end of September 1957 the party boats off Southern California had landed 2,805 dolphin fish against a previous high of 15 in 1947. Some of these events, related as anecdotal, might forever remain so, were it not that recent years have seen an upsurge in man's interest in the atmospheric and oceanic environment. This interest has been expressed by growth in research organizations motivated to record, study and understand the environment and its perturbations.

A Past President Ruminates on Recruitment to Members, Directors, Officers

Let me once again vent my disappointment with the recruitment process. (I'd hate to disillusion those who expect me to gripe about this topic.)

The membership table presented in the July/August issue of *Briefs* tells the story. Some of you will be bored to tears with the following, but for those who don't know, I was president for three year's ('82 - '83 - '84, John Radovich died in '81). There were 70 new members in each of the years '83 and '84. The closest two year period to that total (140) occurred in '85 and '86 (90), and the next closest was in '87 and '88 (82) and it has been downhill since. I've explained to more than one past president how we achieved this success. In addition to having a bunch of eager beavers on the Board and Directors who really worked at recruiting, we circulated a single sheet brochure to the departments of every college or university that we knew offered aquatic courses of any kind. It was a simple invitation to join – how, when and where — and a brief explanation of AIFRB goals. Anyhow, it worked and to my knowledge, it hasn't been tried since. (In checking the years before 1983, I realized that there may have been a “carry over effect” in the immediate years after '84, i.e. maybe the brochures stayed on the bulletin boards for a year or more.)

As far as I know, the current modus operandi is to add new awards, hold symposia, and create an on-line publication in the expectation that consequent hoards will be knocking on our door step to join. I realize all of these factors have not yet been in play, so the real test is to come. However, some have been extant for a couple of years, along with some “special efforts”, but the 10 new members in 2008 fell well below the 10% goal that was set a year ago. One of the problems I see with the existing approach is that all the advertizing of achievements and improvements is done “in house” and that hasn’t produced any startling results. Under the circumstances, I can understand why the membership report didn’t include the current number of members, paid up or not. Last year at this time, there were less than 500 paid up members, less than half of that in the 1980’s. I wish someone would explain what was touted last year, i.e. that AIFRB has a unique role to play in fisheries science. Maybe that would ease my conscience, as I am very uncomfortable with our accepting and requesting funds as memorials for an organization that itself is on death’s doorstep – particularly, when the donors are not aware of our status and are contributing considerably more than the usual \$10 or \$20.

Bernard E. Skud, a Past-President

(Ed. Note: I greatly appreciate the efforts of members like Bernie Skud, Bill Bayliff, and formerly Jack Pearce who take the time to communicate their concern about the Institute in Briefs. I encourage others to do the same. The Directors need to know of members concerns, and Briefs offers an opportunity for open communication to Directors and among members.)

Book Traces the History of Famed Florida Fishing Club

The Great Depression showed no signs of departure throughout the 1930s, so what could leaders of West Palm Beach, Fla. do to shake off the city’s economic doldrums and once again have it become a major tourist attraction?

Fishing, anyone?

The Gulf Stream curves a few miles off the Palm Beaches en route to the northern Atlantic Ocean and billfish like sailfish and marlin are among its inhabitants. Enter the West Palm Beach Fishing Club. Founded in 1934, it was designed to be more than a sport fishing club whose activities benefitted only members. The new organization’s goals were a mix of sport fishing for the masses and pride in civic responsibilities and projects. A year after its founding, the club established the still-running Silver Sailfish Derby and the rest is history — 75 years’ worth.

Mike Rivkin, who authored the International Game Fish Association history as well as two other books of interest to sport fishermen, happened to be making a south Florida swing while researching one of those books. “Our paths crossed and we began discussing our club’s rich history,” said Tom Twyford, the club’s director. “Turns out he was looking for another book project. The timing was perfect and so was publication of the book, just in time for our 75th birthday.” Rivkin traces not only the club’s history, but the attractions of a sport fishery that predated the organization. Noted anglers like Zane Grey and Ernest Hemingway played key roles in helping the area become an angler’s mecca, with luminaries such as PGA Tour star Jack Nicklaus coming later. Golf is Nicklaus’ main game, but sport fishing isn’t far behind.

Complementing the writing are photos of club- and sport fishing-related memorabilia that illustrates the dedication of supporters that backed up club activities. Personable Frances Doucet, who served the club from 1949-98, saved every scrap of paper that crossed her desk, resulting in “a vast treasure trove of ephemera that today makes up the heart and soul of the WPBFC’s archives.”

It makes for an enjoyable read.

The club has long been active in the field of conservation, with many programs benefitting both fish and fishermen, in both fresh and salt water. After largemouth bass fishing success began to wane because of commercial harvesting of the species, the club in 1935 lobbied the Florida Legislature to assign favored game fish status to bass. In 1936, the club imported 7,000 bass fingerlings from Texas to restock local lakes and it’s no accident that one can enjoy a good day’s fishing on Lake Okeechobee today. The club has been credited with many innovations, including tag and release of game fish. Tagging fish has provided fisheries scientists with migratory data not available anywhere else. For example, a sailfish tagged off Palm Beach in 1960 was caught a year later 30 miles off St. Petersburg, Fla., on the state’s west coast. A fish tagged in May of 1963 off Palm Beach was recaptured 76 days later off the coast of Morehead City, N.C. King mackerel tagging began in 1975 to document the growth, migration and popular dynamics of the species, with tagging extended to snook and tarpon a decade or two later.

Yet another successful club program was establishment of dozens of artificial reefs.

The Palm Beach County Fishing Foundation was set up in 1990 as a charitable affiliate of the West Palm Beach Fishing Club. This entity qualifies for grants and provides tax incentives to potential donors. The list of accomplishments is forever growing and who knows what lies over the horizon of the next 75 years? West Palm Beach Fishing Club — A 75-Year History, by Mike Rivkin. Hardbound, 245 pp., well-illustrated. Available in a limited edition of 900 signed and numbered copies for \$75, with net proceeds benefitting the club’s affiliated charitable foundation. For more information, contact Tom Twyford, WPBFC Director, at ttwyford@mindspring.com or (561) 832-6780.

*From Sunday, January 04, 2009 edition of the Augusta Chronicle
John Jolley, a stalwart supporter and member of the AIFRB is also a pillar of the WPBFC.*

Mr. Whiskers at the Fore

Reporting on the collision of explorer and proselytizer Marquette's canoe with a giant catfish noted ichthyologist Sam Clemens (aka M. Twain) reported, "I have seen a Mississippi (River) catfish that was more than six feet long and weighed two hundred and fifty pounds and if Marquette's fish was a fellow to that one, he had a right to think that the river's roaring demon was coming" (Life on the Mississippi, Chapter 2). To that end we announce:

Second International Catfish Symposium

St. Louis, MO (where else?!)

Millennium Hotel

June 19-22, 2010

And

National Catfishing Tournament

Mississippi River, St Louis, MO

June 19-22, 2010

Retardant Risks Warrant Attention

Forest Service Employees for Environmental Ethics filed a motion for summary judgment on October 17, 2008 challenging the U.S. Forest Service's use of toxic aerial fire retardant. In its motion, FSEEE asserts that the Forest Service's "finding of no significant impact" in its analysis of fire retardant use improperly ignores significant damage to fish, water quality and threatened plants. The fertilizer slurry that makes up retardant is highly toxic to fish and other stream inhabitants. The Forest Service's own in-house biological assessment found that retardant dropped in a stream during salmon migration could cause "significant mortality and be catastrophic" to the fish population. The agency's public environmental assessment, however, never considered the consequences of a retardant drop in a stream.

Instead, the Forest Service argues that the odds of any particular retardant drop hitting a stream are too small to justify analyzing the consequences, citing "the low frequency of fourteen accidents during an eight-year period and approximately 128,000 aerial drops." FSEEE argues that the thousands of retardant drops made every year virtually guarantee that at least one stream will be severely impacted by retardant in the near future.

The U.S. Fish and Wildlife Service and the National Marine Fisheries Service appear to agree. Both agencies found that aerial fire retardant would jeopardize threatened and endangered species. The fisheries service concluded that retardant use jeopardizes twenty-four salmon, trout and sturgeon species - all presently threatened with extinction from a multitude of causes. Fish and Wildlife added fifteen more fish species, seven mussels, two insects and twenty rare plants that are at risk from continued use of aerial fire retardant.

If these agencies conclude that a federal action jeopardizes the continued survival of a protected species, but that some "incidental" death or harm to individual members of the species would not threaten the species' overall survival, the agency must specify how many individuals can be killed. Neither the fisheries service nor Fish and Wildlife did that in regard to aerial fire retardant. Instead, both agencies appear to permit unlimited deaths to threatened and endangered species from aerial fire retardant use.

FSEEE's lawsuit challenges this notion that fighting forest fires is more important than endangered species protection, noting that fire is an essential part of healthy forest ecosystems. A study commissioned by the Forest Service's firefighting office concluded "continual fire suppression may have more adverse effects to ecosystems than wildfires." FSEEE's lawsuit seeks to compel a long overdue assessment of the pros and cons of fire suppression on the health of forested ecosystems. The case has been assigned to U.S. District Court Judge Donald Molloy in Missoula, and is likely to be decided in 2009. *Andy Stahl*

From Inner Voice, Winter 2009, Vol. II, Issue I

ICCAT fails to protect tuna in eastern Atlantic

Morocco – Despite a strong US proposal to conserve bluefin tuna in the eastern Atlantic and Mediterranean, the International Commission for the Conservation of Atlantic Tunas (ICCAT) failed November 15, 2008 to heed scientific advice and adopt measures that would end overfishing and put this species on the path to recovery. However, the commission adopted a strong measure, championed by the United States, to rebuild the western Atlantic bluefin tuna stock, the stock harvested by US fishermen. The catch level for the western Atlantic stock was reduced from 2,100 metric tons to 1,800 metric tons by the year 2010. This stock is also fished by Canada, Mexico and Japan. The much larger eastern and Mediterranean stock mixes with the western stock. Conservation of the species depends on science based management and effective compliance with the rules on both sides of the ocean.

The US delegation to the meeting in Marrakech urged the international body of 45 nations and the European Commission to cut catch levels for the much larger eastern and Mediterranean bluefin tuna stock from about 29,000 metric tons to 15,000 metric tons to comply with what an international panel of scientists have recommended to end overfishing and allow the stock to recover. Dr. Rebecca Lent, the head of the US Delegation and director of International Affairs at the National Oceanic and Atmospheric Administration's (NOAA) Fisheries Science, said she was extremely disappointed with the results of this meeting. "While the commission followed the recommendation to reduce catch levels for the western stock consistent with the science, it continues to put the species as a whole in jeopardy by authorizing excessive fishing levels on the eastern stock," she said. Although the final measure for eastern Atlantic and Mediterranean bluefin tuna fails to fully achieve US objectives, the plan that was adopted by the commission will reduce mortality and improve monitoring and control of the fishery through new reporting

requirements – measures that seek to reduce overcapacity and rationalize the fishery, and establishment of an ICCAT regional observer program.

The United States met a major meeting objective to extend for an additional year strong management measures for North Atlantic swordfish. This will provide additional time to revitalize the swordfish stock and allow any new management measures to be based on the most recent stock assessment, which will be completed in 2009. In addition, a commitment was secured to analyze and implement fishing closures to protect juvenile bigeye tuna by 2010, pending scientific advice.

The commission also took up several shark conservation proposals. With US support, a measure was adopted that would require live release of bigeye thresher sharks, a species that is the most vulnerable of the top 10 species of concern that were evaluated by the international commission's science committee. US fisheries are already subject to this requirement under domestic regulations.

From Carteret County NC, The News-Times, December 3, 2008

ICCAT Gets Peer Reviewed

The International Commission for the Conservation of Atlantic Tunas (ICCAT) was formed in 1969 and is the Regional Fisheries Management Organization (RFMO) charged with the international management of 30 tuna and tuna-like fishes in the Atlantic Ocean and Mediterranean Sea. In response to concerns raised by the international community about the sustainable management of high seas fisheries, including where FRMOs exist, the International Commission for the Conservation of Atlantic Tunas (ICCAT) at its 2007 annual meeting agreed to conduct an independent review of its own performance against its objectives.

ICCAT appointed an independent panel consisting of Glenn Hurry, Chief Executive Officer of the Australian Fisheries Management Authority (AFMA) and the current Chairman of the WCPFC, Moritaka Hayashi, Professor (now emeritus) of International Law, Waseda University in Japan, and Jean-Jacques Maguire, a well-known and respected international fisheries scientist from Canada.

ICCAT's objective is embedded in the preamble of its Convention finalized in 1966. The preamble states: "The Governments ...considering their mutual interest in the populations of tuna and tuna-like fishes found in the Atlantic Ocean, and desiring to cooperate in maintaining the populations of these fishes at levels which will permit the maximum sustainable catch for food and other purposes." ICCAT's objective is therefore to maintain populations of tunas and tuna like fishes at levels that will permit maximum sustainable yield (MSY).

All in all, the report reiterated some major concerns that the IGFA has had for some time. Namely, the commission needs to heed the recommendations of scientists on the SCRS. Also, lack of compliance by member countries needs to end in order to halt overfishing in species like bluefin tuna and that there needs to be strict penalties that are enforced for member countries that routinely are non-compliant. We are glad to see that the review panel was sensitive to the lack of data on billfish for proper management and also recognizes the need to involved the recreational sector more in management deliberations. However, because ICCAT's objectives are founded on MSY, or the number of fish killed, while recreational anglers, in the case of billfish, focus on fish that are caught and released, the future remains uncertain.

From International Angler 70(6), Nov-Dec 2008

NOAA Finds Decline in Pollock

Recommends Catch Cut to Council

NOAA has released new scientific information showing a decline in the walleye pollock biomass that has the agency recommending a cut to the pollock catch for 2009 in the eastern Bering Sea. "Although the pollock biomass was well above average in the 1990s, our surveys show a substantial decline in recent years," said Doug DeMaster, science and research director for NOAA's Alaska Fisheries Science Center. "The stock has been closely monitored and management decisions have historically followed sound conservation principles. We anticipate lower catch limits for 2009."

A 2008 bottom trawl survey of pollock numbers was in line with last year's analysis, but another survey that combined information from acoustic measurements of pollock biomass and midwater trawl results showed lower abundance than expected. These results have prompted NOAA scientists to recommend to the North Pacific Fishery Management Council a sustainable catch of 815,000 metric tons for 2009, an 18.5 percent reduction from 2008. The new scientific information on pollock comes from major scientific surveys this season, plus catch data and oceanographic information. The council will review and discuss NOAA's recommendation at its December meeting and make its recommendation to NOAA's Fisheries Service for the total allowable catch of pollock for 2009. Although recent surveys show the biomass has declined, there is some optimism about the future of the stock. "The prognosis for 2010 is for improved stock levels because 2006 was a more successful year for the hatching and survival of young pollock," said Jim Ianelli, a stock assessment scientist at the NOAA Alaska Fisheries Science Center. "The 2009 surveys will play a critical role in monitoring and in later management decisions."

The eastern Bering Sea pollock fishery is known for its strong management, conservative catch levels, near real-time reporting and high numbers of fishery observers who track catch levels and any bycatch of other marine species. The fishery

uses pelagic trawls which minimize disturbance of the bottom habitat and decrease the accidental catch of other species. The most valuable part of the fishery is roe. Regulations allow no more than 40 percent of the total catch to be taken during the roe season.

NOAA scientists recently presented the draft pollock stock assessment to the North Pacific Fishery Management Council's Groundfish Plan Team, which is reviewing the assessment and compiling the report for the council. The council's scientific and statistical committee will recommend an acceptable biological catch level – a sustainable catch level – and the advisory panel will recommend a total allowable catch, which is historically lower because it takes into account other factors. After listening to committee recommendations and public input, the council will recommend a total allowable catch for pollock for 2009.

NOAA Press Release, November 20, 2008

Migrating Alaskan Pollock are creating the potential for a new dispute with Russia

The popular fish appear to be moving to higher latitudes as waters warm. A billion-dollar industry is at stake.

**By Kenneth R. Weiss, Los Angeles Times Staff Writer
October 19, 2008**

DUTCH HARBOR, ALASKA - America's biggest catch lands here and at nearby ports every year: more than 2 billion pounds of Alaskan pollock to feed a global appetite for fish sticks, fast-food sandwiches and imitation crabmeat. The tightly managed Alaskan pollock fishery has been a rare success story in the U.S., which has seen the collapse of species such as New England cod and now imports 80% of its seafood. Yet the careful management that helped make Alaskan pollock a billion-dollar industry could unravel as the planet warms. Pollock and other fish in the Bering Sea are moving to higher latitudes as winter ice retreats and water temperatures rise. Alaskan pollock are becoming Russian pollock, swimming across an international boundary in search of food and setting off what could become a geopolitical dispute.

Andrew Rosenberg, former deputy director of the National Marine Fisheries Service, expects the pollock to be a test case in an emerging pattern of fish driven by climate change across jurisdictional boundaries. "It will be a food security issue and has an enormous potential for political upheaval," said Rosenberg, now a professor at the University of New Hampshire. "We aren't getting along that well with the Russians now."

A warming trend in the Bering Sea has forced fishermen like Jim Summers to motor 360 miles in his 191-foot trawler, the Aurora, to reach profitable fishing grounds. Docked here recently, he gingerly worked a hydraulic lever, unleashing 30,000 pounds of the mottled, pale-bellied pollock onto the deck. "It feels like every year we're going farther and farther north," Summers said. "It used to be that most of our trips found fish near Dutch Harbor, with an occasional run up toward Russia. Now it has flipped." While Summers repositioned the net, a pair of 12-inch-diameter hoses vacuumed more than 1 million pounds of fish from the hold of the ship into a dockside processing plant. Once there, the fish coursed through a labyrinth of tanks, conveyor belts, and automated slicing, dicing and washing machines that turned the fish into fillets or fish paste. This flow of white flesh was then frozen in blocks and stacked in containers on freighters, destined to be breaded and fried at McDonald's and other fast-food restaurants, or shipped to Europe for fish-and-chips platters or to Japan for surimi, the fake crab at the heart of California rolls in sushi bars.

At a fueling dock nearby, Steve Olsen, captain of a stern trawler, pored over the GPS tracks of his trawls in recent years. The lines on the screen moved ever closer to Russian waters. "When you are towing [the net] and you stop finding fish, you typically turn northwest and you'll find them again," Olsen said. His finger traced the squiggling line of a successful trawl that took his 112-foot ship, the Western Dawn, next to the border. "We could see the Russian guys fishing the other side," he said. "We see them right on the line. If we see them right on the line, we'll check it too."

Pollock spawn each winter near the Aleutian Islands and then follow their food north as waters warm in the spring. But the food has shifted farther north with receding sea ice, and now pollock, which follow the northwesterly contour of the continental shelf, are shifting their range ever closer to Russian waters. Scientists who help manage the fishery are confirming what fishermen report: The fish disappear from the Aleutians area each summer and can mostly be found near Russia. Every June and July, federal scientists trawl a grid pattern in the Bering Sea in an area about the size of California. Counting the fish caught in these trawls and matching them against sonar readings, they estimate the size of fish stocks. These assessments help set limits on the next year's catch to safeguard spawning stock. An analysis of 25 years of surveys showed that the ranges of most fish are shifting north as the ice and cool water have retreated, said Franz J. Mueter, a fisheries oceanographer at the University of Alaska. "What we found confirmed the obvious," Mueter said. "As waters warm, a lot of fish on the eastern Bering Sea shelf are moving north."

Not all scientists agree. Some suggest that other factors need further study, including different migration patterns of older and younger fish, whether trawl data provide a complete picture of fish populations, and whether these waters are becoming

overfished despite the Marine Stewardship Council's eco-label certifying that the pollock fishery is managed sustainably. Federal scientists pointed out last week that their sampling showed the Bering waters were colder the last three summers. And yet pollock continue to appear mostly at the northwestern edge of their range. Mueter's study, published in the journal *Ecological Applications*, jibes with phenomena other scientists are finding in the Arctic, a region warming twice as fast as the rest of the globe. Their studies have chronicled bizarre subarctic blooms of tiny phytoplankton; massive seabird die-offs; and skinny, malnourished gray whales migrating deep into Arctic waters in search of food. In the Northern Hemisphere, the range of fish appears to be shifting toward the North Pole two or three times faster than the range of animals on land, studies show. Salmon have begun to colonize new rivers on Alaska's north coast. The ranges of squid, mackerel and other baitfish are moving poleward, in some cases devastating nesting colonies of seabirds that depend on nearby fish to feed their young. Some nations may gain a fishery while others will lose one. Norway may benefit from fish in the Atlantic moving away from more southerly waters controlled by Britain and other European nations. Fisheries experts wonder whether such shifts will spark another round of fighting akin to the Icelandic cod wars of the 1950s and 1970s, when fishermen rammed boats, cut nets and exchanged gunfire. The potential for conflict could be realized in the Bering Sea, which is nicknamed America's fish basket because more than half of all U.S. fish and shellfish are pulled from these waters. Together the U.S. and Russian pollock catches make up the largest human-food fishery in the world. Already, suspicions are mounting. Russia this summer announced that its pollock catch was up and its stocks were in "good shape," justifying a higher catch in 2009. Meanwhile, U.S. fisheries managers have scaled back on the catch in recent years. This summer's survey, released Oct. 8, showed a drop in pollock stocks, prompting calls for further cutbacks. Russia has allowed U.S. scientists to extend their annual surveys across the border only occasionally, resulting in uncertainty about how many Alaskan pollock are now in Russian waters. "We think, depending on the year and conditions, that roughly 10 to 20% of the stock goes over to the Russian side," said James N. Ianelli, a National Marine Fisheries Service scientist in charge of the annual assessment. An independent review suggested the spillover might be as high as 30%. U.S. scientists can't be sure how many fish the Russians are catching. They worry about lax enforcement and poaching, given reports of Russian mafia involvement in the fish trade. Russian officials have been less than reassuring, said Keith Criddle, a marine policy professor at the University of Alaska. Criddle was shocked at a Russian response when he suggested conducting an academic study of this shared fishery and applying game theory to determine whether the two nations should collaborate or compete. "This deputy director first said, 'Well, we've never fished up there,' which is patently untrue," Criddle said. Then the Moscow official launched into a lecture about climate change and oceanic conditions, and flatly rejected any notion that the Russian catch could affect the health of the fishery. "It was weird, weird," Criddle said. "Did I wander into the Twilight Zone or stick my foot into a sensitive international issue?" If Russians take 20% of the catch, he asked, "do we eat it and reduce our catches to manage conservatively? If we get to the position where Russians are taking 50% of the catch, what are we going to do?"

Such questions are more than academic among fishermen who have been chasing these fish across the Bering Sea in recent years. Some question the restraint that fed their families and much of the world. "I've heard this time and again," said Summers, the captain of the *Aurora*. "If we don't catch them, then the Russians are going to catch them."

EPA Kills Yazoo Pumps in Historic Victory for Environment and Taxpayers

In the last issue of *Upstream*, we shared the latest win in our decade-long effort to stop the wasteful Yazoo Pumps project that would drain and damage 200,000 acres of some of the most precious wetlands in the South. Though close to victory then, when the US Environmental Protection Agency (EPA) announced it would initiate the veto process against the project, the fight wasn't over yet.

In September, EPA officially put an end to the disastrous Yazoo Pumps project, saving this vital ecosystem and \$220 million in federal tax dollars. The veto, which is EPA's first since 1990 and only the 12th in the agency's 37 year history, puts an end to an environmentally catastrophic drainage project first dreamt up by the US Army Corps of Engineers in 1941. "This is an historic victory for the environment and taxpayers and we applaud EPA for its decision," said President Rebecca Wodder. "EPA was under a tremendous amount of pressure to greenlight this boondoggle but it stood firm and did the right thing."

American Rivers continues to urge EPA to stand up to the Army Corps of Engineers to prevent the Corps from destroying small streams and wetlands that are critical to providing clean water and protecting communities from floods.

From Upstream, Autumn 2008

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