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American Institute of Fishery Research Biologists

Promoting excellence in fishery science

... BRIEFS ...

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Note on the President

President Beamish suffered a health incident early January that has placed him in a reduced duty status for a couple of months. Dick and his family thank AIFRB members for their good wishes and would appreciate forbearance as Dick focuses on recovery.

Ed.

NPAFC Receives 2010 Group Outstanding Achievement Award

The American Institute of Fishery Research Biologists (AIFRB) unanimously selected the North Pacific Anadromous Fish Commission (NPAFC) as the recipient of its highest award, the 2010 Group Outstanding Achievement Award. The scientific work of the Commission is carried out by its member nations, and is coordinated by the NPAFC's Committee on Scientific Research and Statistics. Thus, AIFRB's award recognizes the contributions of all NPAFC member nations, as well as the NPAFC Secretariat. An engraved plaque commemorating the award was presented to NPAFC by AIFRB President, Dick Beamish, at the NPAFC Annual Meeting in Niigata, Japan. The 2010 Group Outstanding Achievement Award plaque will be proudly displayed at the NPAFC Secretariat's office in Vancouver, B.C.

The AIFRB Group Outstanding Achievement Award is given to research groups with outstanding records of scientific contribution to fishery science or fishery resource policy. It is the Institute's highest award recognizing research groups that nurture excellence in fishery science. Candidates for the award were rated on the following criteria: sustained contribution of significant publications, exceptional service of the fishery profession, outstanding teaching or training programs, important discoveries or inventions, and significant contributions to the advancement of fishery science.

Some major scientific advances and achievements under NPAFC's science plans have included:

- Recognition that salmon migrating in Convention waters are dependent on natural processes;
- Better scientific knowledge of the structural features of salmon migrations in the open ocean;
- Development and application (by Russia) of ocean trawl survey techniques to successfully forecast salmon catches and returns to spawning streams;
- Recognition that winter is a critical period for survival of salmon in the North Pacific Ocean;
- Improved understanding of intra-annual (monthly, seasonal) characteristics of salmon growth, lipids, sufficiency of food, trophic interactions, and other factors that influence their ocean survival;
- Development and first application of new (electronic) tagging technologies to study fish behavior with respect to environmental conditions;
- Establishment and first applications of international genetic databases to identify mixtures of salmon stocks in the ocean;
- The first integrated pelagic ecosystem monitoring of anadromous stocks over large areas of the Bering Sea and adjacent North Pacific waters in late summer and fall (Bering- Aleutian Salmon International Survey (BASIS));
- The first electronic data storage tag and hydroacoustic data showing vertical migratory behavior of anadromous stocks in the open ocean;
- The first international calibration of pelagic trawls to standardize abundance and biomass estimates of anadromous stocks in the Convention Area;
- The first international coordination of otolith mark patterns among member countries;
- A greater scientific understanding of the marine ecosystem and climatic processes leading to variation in abundance and biomass of anadromous stocks.



*AIFRB President, Dick Beamish
presenting the Outstanding Achievement
Award to NPAFC Executive Director,
Vladimir Fedorenko*

The AIFRB is a 501(c)(3) tax-exempt nonprofit organization (EIN 61-6050711).

Submitted by: Katherine Myers, University of Washington, U.S.A.

From: NPAFC Newsletter, No. 27, Jan 2010

2010 Clark Hubbs Associate Research Awards Program

The Hubbs Associate Research Award was established in 1986 by the American Institute of Fisheries Research Biologists (www.aifrb.org) to support travel expenses associated with professional development. The Hubbs award is offered annually to all AIFRB graduate students and other Associate members of the Institute in good standing. It provides a maximum of \$500 towards the opportunity to present results of an original paper or research project of merit at scientific meetings, or to conduct research at distant study sites. An individual may receive not more than two awards in a lifetime. Application packages must contain a research abstract, letter of support from the student's sponsor, and a 2-page curriculum vitae. Send applications to: Dr. Jerald S. Ault, University of Miami RSMAS, 4600 Rickenbacker Causeway, Miami, FL 33149, (305)421-4884 ph; (305)421-4791 (fax); jault@rsmas.miami.edu. Deadline is June 11, 2010.

New England District Plans Active Year

New England District Dinners will start up this spring, 2010. All members are invited to join us at these informal, semi-annual events, and they are encouraged to bring a guest. Plans are in the formative phase now but the spring dinner is anticipated to be held in New Bedford and the fall dinner is anticipated to be held in Gloucester. If you are a NE District member that has not already been contacted about these dinners, and you want to be contacted, give a shout to your District Director at Richard.McBride@noaa.gov (voice: 508-495-2244).

Submitted by: Richard McBride

Losses

Albert Walker Collier 1910-2009

Last Founding Member Pioneer Marine Biologist of the Texas Gulf Coast

Albert Walker Collier died in San Antonio, Texas on Saturday, November 28, 2009. He was born in Nowata, Oklahoma on December 12, 1910. He graduated from John H. Reagan High School in Houston, Texas, in 1928. In 1933 he received a Bachelor of Arts Degree in Biology from Rice Institute, Houston, Texas. On June 22, 1937, he married Judy Sorenson of Rockport, Texas. They had two daughters, Judith Collier (Durbin) of San Antonio, and Janie Collier (White) of Rockport. He is survived by his daughters; his second wife, Marie Jacobson Collier of San Antonio; 4 grandchildren and 7 great-grandchildren.

From 1935 to 1939 he was a marine biologist with the Texas Game, Fish and Oyster Commission in Rockport, Texas, where he was in charge of the first laboratory on the Texas Gulf coast for the study of marine life. His laboratory was aboard the houseboat *Vivian* in Rockport Harbor.

He formed the Aransas County Emergency Corps on June 14, 1938. The city appointed him Fire Chief. His Grandson, James Taylor White, is preserving his leather helmet bearing the number "one".

From 1939 to 1942, he was a Fishery biologist with the U.S. Bureau of Fisheries, U.S. Fish and Wildlife Service. During this time, he was in Alaska studying the Alaskan salmon fishery. In 1941, he was transferred to New Orleans, Louisiana to study the Gulf shrimp industry. During World War II, he served at the Naval Air Station in Corpus Christi, Texas.

In 1945 and 1946, while he was mayor of Rockport, he opened a fish house, and leased 100 acres of submerged land in Aransas Bay. He worked with the Texas Game, Fish and Oyster Commission as he transferred oysters from nearby overcrowded reefs to his reef. At the time, he was the largest commercial oyster farmer in the area.

From 1950 to 1956, he was with the Fish and Wildlife-Service Laboratory in Galveston, Texas. As Chief of U.S. Fish and Wildlife Service, Gulf Fishery Investigations, he and his team discovered the marine organism that was the cause of the fish-killing phenomenon in the Gulf of Mexico known as Florida Red Tide.

In 1956, he was recruited by Texas A&M University's Oceanography Department to launch the Texas A&M Marine Laboratory at Fort Crockett in Galveston, Texas. He was able to obtain National Science Foundation funding to transform the weather-beaten World War II building at Fort Crockett into a respected research and educational facility.

From 1962 to 1976, he was Director of the Oceanographic Institute at Florida State University (FSU) in Tallahassee, Florida, where he was involved in research in Marine Biology and Oceanography. He taught at the undergraduate and graduate level. He was also involved in research related to underwater warfare for the U.S. Navy, and served as Chairman of the Committee for Naval Research that reviewed and evaluated research proposals. He retired in 1976 as Emeritus Professor of Biology.

As a visiting scholar at the University of Arizona in Tucson, Arizona, he was involved in the publication of a manual of sea animals of the Gulf of California. It was illustrated with 150 of his pen and ink drawing. In 1982, he retired to Green Valley, Arizona.

Among other accomplishments, he was a founding member of the American Institute of Fishery Research Biologists. He was inducted into the Texas Hall of Fame for Science, Mathematics and Technology on January 23, 2003.

In 1946 while investigating massive oyster mortality in the coastal waters of Louisiana, he was one of three investigators that independently discovered a previously unknown parasite (*Dermocystidium marinum*) that was the cause of that mortality. Dr. Sammy Ray of Texas A&M University in Galveston, who worked with him on that project and many others, has been studying this parasite and Dermo Disease in Aransas Bay for the last 5 or 6 years. Albert Collier's family would like to thank Dr. Ray for helping commemorate our father's life and career with a small memorial service while collecting oyster samples from the bay where Albert Collier began his career 74 years ago.

*Prepared by: Sammy Ray
Submitted by: Bernie Skud*

J.A.R. Hamilton, December 7, 2009

18-1220 Guthrie Road, Comox BC V9M4A6 Canada

Bernard Fink, 2008

12924 Via Latina, Del Mar, CA 92014

Thomas Schmidt, September, 2009

And two well known non members

John Edward Olney & William A. Van Engel

As reported in Bay Journal Feb 2010, p.17

Late VIMS professors were leading researchers in their fields

Williard A. Van Engel laid the foundation for blue crab research and was one of the founders of the Virginia Institute of Marine Science.

Dr. Willard A. Van Engel, a pioneer in blue crab research and professor emeritus, of the Virginia Institute of Marine Science died Dec. 25. He was 94. Van Engel, known as "Van," laid the foundation of blue crab research in the Chesapeake Bay during the 1940s and was among those who created VIMS, one of the region's premier research organizations. Born in 1915, Van Engel was a native of Milwaukee, WI. He received his bachelor's and master's degrees in the late 1930s from the University of Wisconsin-Madison.

In 1946, Van Engel attended a fisheries meeting in St. Louis, where the director of the Virginia Fisheries Laboratory offered him a job. Van Engel accepted. At a time when calculations were done with slide rules and adding machines, Van Engel and his colleagues were on the cutting edge of research in Chesapeake Bay. His early papers on the blue crab fishery formed the fundamental nucleus of work in the field. Van Engel also foresaw the need for a fisheries survey for the blue crab. His efforts created the longest ongoing data set for the blue crab, or any other *Portunid* (swimming) crab worldwide. His varied research interests included many pioneering areas now taken for granted, such as the relationship between recruitment dynamics and environmental parameters. Throughout his career, Van Engel maintained key relationships with the Virginia Marine Resources Commission, the seafood industry and watermen.

William W. Warner, the late author of "*Beautiful Swimmers*," once called Van Engel "the complete estuaries biologist, as much at home in theoretical discussions with his scientist colleagues as he is in meeting with watermen throughout the Bay."

In the late 1940s, Van Engel and his colleagues helped to shape the newly founded VIMS into the diverse academic community it has become today. In 1947, he predicted the need for a centralized archive of scientific papers and reports, and founded the VIMS Library. At the American Association for the Advancement of Science meeting in 1948, Van Engel and others, who at the time called themselves the "Brackish Boys," created what later became known as the Atlantic Estuarine Research Society.

On retirement from VIMS in 1985 at the age of 70, Van Engel was the longest serving employee at almost 39 years. A year later, he created a fellowship to support graduate student research on crustaceans.

In recent years, Van Engel received two significant recognitions. In 2003, VIMS presented Van Engel with its inaugural Lifetime Achievement Award for outstanding academic and scientific research contributions and continued support to VIMS. In 2006, the College of William and Mary presented him an honorary doctorate of science. After retirement he enjoyed riding his horses, spending time with his friends and was an active member of the Gloucester Point Rotary Club.

John Edward Olney, head of the anadromous fish research program, was an expert on American shad as well as identifying fish in their larval stages.

John Edward Olney, Sr., a leading shad researcher and professor at the Virginia Institute of Marine Science, died on Jan. 11, after a year-long battle with cancer. He was 62.

Olney headed the anadromous fish research program at VIMS and was a well-known expert on the biology and conservation of American shad. Along with his students and collaborators, he published 25 papers on American shad and was principal adviser to the Virginia Marine Resources Commission and the Atlantic States Marine Fisheries Commission on decisions related to shad management in Virginia. Early in the discussions on the Mattaponi River-King William Reservoir issue, he warned of the project's potential impacts to shad reproduction.

Olney was also a prominent expert in the identification of young stages of fish. His research focused on the development, anatomy and evolution of two groups of fishes in particular, the oarfish and pearlfish. The taxonomic classifications that resulted from his research on these fishes are widely used in the field of ichthyology. Olney was first employed at VIMS in 1972 and joined the faculty as an instructor in 1979. He was a popular and respected teacher and adviser, serving as major professor and confidant to 22 graduate students.

In recent years, Olney teamed with Ed Houde of the University of Maryland to teach a unique course, *The Early Life History of Marine Fishes*. He built a collection representing the larvae of 145 fish families and used it to show students the remarkably diverse specializations that larval fish need to thrive. The collection, lecture notes and course guide are an important part of his legacy.

Olney's service to VIMS included appointments to the Academic Affairs, Planning and Resources, and Executive committees of the William & Mary Faculty Assembly. Within the School of Marine Science, he chaired both the Academic Council and Educational Policy Committee, and was a member of the Academic Status and Degrees, Library Advisory, and Admissions committees. He also chaired the Department of Fisheries Science from 2006-09.

Olney often shared his culinary talents with friends, family and colleagues. For many years, he cooked for VIMS students at their fall fund-raiser, as well as for the faculty at their annual seafood fest. In the spring, he hunted morel mushrooms in the foothills of the Blue Ridge Mountains with friends at his side, a ritual that he practiced for more than two decades.

A celebration of Olney's life will be scheduled in the spring of 2010 at VIMS.

Memorial gifts may be made to the VIMS Foundation for the benefit of the John Edward Olney Sr. Memorial Endowment, which supports research and travel by VIMS graduate students in ichthyology and fisheries science. Gifts may be sent c/o VIMS, P.O. Box 1346, Rte. 1208 Grete Road, Gloucester Point, VA 23062.

From: Bay Journal, February 2010

Important New Works

And a fascinating new title

Conservation and Management of Transnational Tuna Fisheries
by Robin Allen, James Joseph, and Dale Squires (editors). 2010.
Wiley-Blackwell: 360 pp., \$199.99

Conservation and Management of Transnational Tuna Fisheries reviews and synthesizes the existing literature, focusing on rights-based management and the creation of economic incentives to manage transnational tuna fisheries. Transnational tuna fisheries are among the most important fisheries in the world, and tuna commissions are increasingly shifting toward this approach. Comprehensively covering the subject, Conservation and Management of Transnational Tuna Fisheries summarizes global experience and offers practical applications for applying rights-based management and the creation of economic incentives, addressing potential problems as well as the total level of capacity.

This reference work is divided into four parts, beginning with an overview of the book, including the issues, property rights, and rights-based management. The subsequent sections address issues arising with property rights, discuss bycatch, and cover compliance, enforcement, trade measures, and politics. Written by an expert team of international authors, Conservation and Management of Transnational Tuna Fisheries will appeal to social and fisheries scientists and fishery managers in universities and research institutions, government and non-governmental organizations, fisheries management bodies, members of the fishing industry, and international institutions.

Not only did Jim Joseph edit this work but our own Bill Bayliff was a contributor. Ed.

Coming Soon!

Mismanagement of Marine Fisheries

Alan Longhurst Cambridge University Press

A critique of fishery science, re-examining the aspects of the biology of fish relevant to fishing. Emphasizes the ephemeral nature of fish stocks and near-complete lack of regulation of fishing over much of the ocean. Longhurst concludes that sustainability can be achieved only where unusual political and social circumstances prevail.

Contents:

Preface; 1. From certainty to doubt in fishery science; 2. The ecological consequences of the extraordinary fecundity of teleosts; 3. Indeterminate growth, negative senescence and longevity; 4. Marine ecosystems: their structure and simulation; 5. The natural variability of fish populations and fisheries; 6. Has sustainability in fishing ever been achieved?; 7. What is the real state of global fish populations?; 8. The mechanics of fish populations collapse; 9. Why do some fish populations not recover after depletion?; 10. Is the response of the fishery science community appropriate?; 11. Conclusion: sustainability can be achieved rarely, and only under special conditions.

Due May 2010/300 pp./26 b/w illustrations

978-0-521-89672-6/Hb/List: \$130.00

Disc.: \$104.00

978-0-521-72150-9/Pb/List: \$59.00

Disc.: \$47.20

www.cambridge.org/us/ecology

Second National Meeting of Regional Fishery Management Councils' Scientific and Statistical Committees

**Hosted by the
Caribbean (CFMC) Fishery Management Council
November 10-13, 2009**

Executive Summary

In 2006, the Magnuson-Stevens Act (MSA) was revised to require that each regional fishery management council's Scientific and Statistical Committee (SSC) provide its Council ongoing scientific advice for fishery management decisions, including recommendations for acceptable biological catch (ABC), and other advice regarding fisheries sustainability. In 2008, the Western Pacific Regional Fishery Management Council (WPFMC) hosted the first national SSC workshop.

In 2009, the Councils decided to fund a second workshop to discuss technical aspects of establishing scientifically-based annual catch limits. The workshop was hosted by the Caribbean Fishery Management Council (CFMC), and held in St. Thomas, USVI. The workshop provided an opportunity for representatives from the eight regional council SSCs to compare notes and best practices. Presentations are available on the regional fishery management councils' website: www.fisherycouncils.org.

The workshop revealed that there are many different approaches to meeting the National Standard 2 guidelines relative to incorporating scientific uncertainty into the setting of annual catch limits. Where feasible, SSCs are considering the P* approach, which uses quantified scientific uncertainty to set ABC at a level to match a pre-specified probability of overfishing. Variations include: the methods used to calculate scientific uncertainty, tiered approaches linked to the quality of information about uncertainty, inclusion of stock productivity scores in the risk calculation, and fixed buffers where uncertainty is not fully quantified.

- The North Pacific Council is planning to use their existing tier system for groundfish, develop a probabilistic (P*) approach to set a buffer below OFL for crabs, and use a fixed buffer for scallops.

- The Pacific Council is developing a (P*) approach that will incorporate integrated sources of uncertainty to setting buffers below OFL.

- The Western Pacific Council is planning to set ABCs based on lowering exploitation rates for pelagic fishes, catch amounts for bottom fishes and precious corals, and fixed buffers for crustaceans and coral reef species based on trends.

- The New England Council is developing a P* approach for scallop stocks, fixed buffers or rebuilding rates for most groundfish, and reduced catch/exploitation rates for data poor stocks.

- The Mid-Atlantic Council is developing a tiered approach for setting ABCs based on assessment quality, with a P* approach for stocks with reliable assessments and adjustments based on biomass trend for other stocks.

- The South Atlantic SSC has developed tiers and dimensions (assessment information, uncertainty level, stock status, productivity and susceptibility) to establish a control rule framework for ABC determinations.

- The Gulf of Mexico Council is developing an approach that generally mirrors the South Atlantic.

- The Caribbean SSC is evaluating ways to use available data to provide advice on catch limits and management measures to control catch.

The different approaches reflect how each council, SSC, and NMFS regions have interpreted the guidelines and worked towards different approaches based on availability and frequency of stock assessments, as well as differences in data availability across the regions. As with the first workshop, sharing experiences and examples provided participants food for thought on possible ways to address ACL determinations and other challenges faced by SSCs.

Participants came to a general understanding about the SSC's role in determining "best scientific information available (BSIA)". It is the SSC's job to provide advice on what represents BSIA to the council. The Council then makes recommendations on management actions to the Secretary of Commerce through the NMFS Regional Offices, who rely upon the NMFS Science Centers for BSIA determinations. The Science Centers rely upon the recommendations of the SSC and peer review panels in making a determination.

Participants discussed the role of the SSCs in the stock assessment peer review process. The SSC's role to provide fishing level recommendations (including ABCs) is distinctly different than the technical peer review role of critiquing and evaluating the scientific rigor of an assessment. The technical peer review should occur early enough in the process to inform the SSC when they make fishing level recommendations. There should be a sequential process from the development of an assessment to final recommendation of ACLs by an SSC, moving away from the details and winnowing down to allow the SSC to make a final determination.

Not all SSCs receive SAFE reports, despite the longstanding requirement that SAFEs be prepared. Participants felt that the SAFE reports can be very useful to the public and Council, as well as the SSC. In addition to providing a single document containing scientific stock assessment information for establishing ACLs, the SAFE reports can improve the public understanding and transparency of the ACL decision process. Stronger language is needed in the NS2 guidelines to ensure that the SAFE reports are prepared.

There was general agreement that the development of a risk policy for establishing ACLs is a management (Council) responsibility, informed by science. For example, scientific information that could be useful to the Council in evaluating risk policy options could include projections of future yield, changes in stock abundance, and the costs and benefits of using different levels of P*. The development of ABC control rules should be a joint management and scientific process. In addition, the SSCs may need to exercise professional judgment so some flexibility must be available to the SSCs in the application of ABC control rules.

Participants agreed to form an ad-hoc working group to prepare a white paper exploring possibilities for establishing ABCs in situations when only catch data are available. It was clear that there is no "one size fits all" solution for addressing data limited situations. Jim Berkson volunteered to lead that group.

Participants felt strongly that it was critical to have another workshop next year. The SSCs now have a very large responsibility to establish ABCs, and many of the methods and control rules are still in the development and testing phases. The diversity of approaches to quantifying scientific uncertainty reflects that this is a new field for fisheries, which requires refinement of approaches over time, and SSC Workshops offer a very efficient way to develop and refine best practices for these technical issues. Topics suggested for the next SSC Workshop included:

- Comparison of technical peer review processes;
- Uncertainty calculation approaches in OFL;
- What is the role of SSC in determination of management uncertainty;
- Ecosystem based management approaches;
- Reviewing NS2 Guidelines;
- Best practices for ACL control rules;
- Best practices of scientific review processes and analytical evaluations.

Participants agreed that in addition to SSC Workshops, further information exchange across councils could be enhanced by sending an SSC member to sit in on other Council SSC meetings on occasion, distributing reports among the SSC chairs, and other coordination where practicable.

National SSC Workshop Participants and Observers

North Pacific Fishery Management Council (NPFMC) Patricia Livingston, Keith Criddle, Franz Mueter, Dave Witherell; Steve Ralston, Martin Dorn, Tom Jagielo, Vidar Weststad; **Gulf of Mexico Fishery Management Council (GMFMC)** Doug Gregory, Will Patterson, Richard Fulford, Rick Leard; **Caribbean Fishery Management Council (CFMC)** Barbara Kojis, Mike Sissenwine, Jim Berkson, Miguel Rolon; **South Atlantic Fishery Management Council (SAFMC)** Carolyn Belcher, Luiz R. Barbieri, Andy Cooper, John Carmichael; **Mid-Atlantic Fishery Management Council (MAFMC)** John Boreman, Thomas Miller, Michael Wilberg, Rich Seagraves; **New England Fishery Management Council (NEFMC)** Steve Cadrin, Jean-Jacques Maguire, Pat Fiorelli, Chris Kellogg; **Western Pacific Fishery Management Council (WPRFMC)** Rick Deriso, Mike Trianni, Bob Skillman; **National Marine Fisheries Service Participants** Rick Methot, Bill Michaels, Mark Millikin, Deb Lambert, David Tomberlin, Wes Patrick, Paul Crone, Rob Andrews, Owen Hamel, Stewart Allen, Don Kobayashi, Erick Williams, Shannon Calay, Paul Rago, James Weinberg, Stephen Brown; **CFMC Support Staff** Diana Martino, Maria de los A. Irizarry, Natalia Perdomo; **OTHER ATTENDEES** Lee Anderson, Rick Robins, Tony Kerns, Ken Stump, Sara Jones, Chad Hanson, Dennis Heinemann, Dana Wolfe, Claudia Friess, Beulah Dalmida-Smith

Submitted by: Allen Shimada

Deaths reveal booming sea turtle population

Big recovery evident in losses during freeze

By SHANNON TOMPKINS Copyright 2010 Houston Chronicle

Jan. 23, 2010, 11:13PM

Texas bays are home to more green sea turtles than anyone thought, and perhaps more than in close to a century. At least they were. “We knew we had an increasing population of green sea turtles, especially on the lower Laguna Madre around Port Isabel, and we were seeing more in other bays,” said Mike Ray, acting director of Texas Parks and Wildlife Department’s coastal fisheries division. “But I don’t think anyone realized just how many we had.” Unfortunately, evidence of the expanding green turtle population surfaced in the form of dead turtles. In the wake of the unusually cold weather that hit the Texas coast Jan. 8-11, scores of cold-stunned green sea turtles were seen floating on the bays or washed onto the bay shore. The cold-blooded turtles, much like the native fish in Texas bays, have a low tolerance for cold temperatures. When water temperature drops much below about 50, the turtles begin suffering physiological effects that can prove fatal. They freeze to death. Over the week following the cold snap, approximately 425 “stranded” sea turtles were found in Texas bays by state and federal wildlife and fisheries staff, conservation groups and private individuals. “That was a big surprise,” Ray said. “It’s not that we didn’t know they were there — that we had green sea turtles in our bays. But it was the number that was stunning.”

Casualties of the cold

In particular, wildlife and fisheries staffs were amazed at how many green sea turtles turned up along the middle Texas coast. More than 100 dead or cold-damaged green sea turtles were retrieved from East Matagorda Bay in the week following the freeze. “I don’t think many people realized there were that many turtles in East Matagorda Bay,” Ray said. The number of dead and cold-injured green turtles seen in the wake of the recent freeze seems to indicate more of the federally- and state-protected turtles are making their home in Texas bays. In the wake of a brief hard freeze that hit the middle and lower Texas coast in 2006, about 175 cold-stunned or dead green turtles were found along the middle and lower coasts. That was more than were seen after the epic freezes in the 1980s. “This freeze, we saw more than three times the previous high,” Ray said. About two-thirds of the turtles recovered over the past two weeks were dead when found. Live but cold-injured turtles were transported to rehabilitation facilities, where many recovered enough to be released back into the bays. Green sea turtles, the most common of the sea turtles in the Gulf of Mexico, are native to Texas marine waters and once were extremely abundant, particularly along the middle Texas coast. While adult green turtles, which can weight as much as 800 pounds, spend much of their time in the open ocean, young turtles seem to gravitate to bay environments where they feed mostly on sea grasses and jellyfish.

Vulnerable nearly vanish

“All of the turtles we’ve seen from this freeze were sub-adults,” Ray said. The turtles were almost extirpated from Texas waters through over-harvest, both in Texas and other warm-water regions frequented by the animals. Sea turtles, which are long lived, don’t reach sexual maturity until 8-10 years old and produce relatively small numbers of offspring, are vulnerable to over-harvest. And that’s what happened to Texas’ sea turtles. In the late 1800s, a strong commercial turtle fishing industry arose on the middle Texas coast, with turtle processing (canned turtle meat and soup) operations centered on the Aransas and Matagorda bay systems. The largest turtle processing business was started in 1881 in Fulton, near Rockport. In 1890, that plant processed approximately 250,000 pounds of sea turtles, almost all of them green turtles. Commercial fishers most often used gill nets to capture the turtles, and in the 1890s, they received about 1 or 2 cents per pound for their catch. Those commercial fishers often held their catches alive in corral-like structures built of poles shoved into the bay bottom along shorelines. These “turtle pens” were used until the commercial turtle business collapsed from over-harvest in the early 1900s. Some of those abandoned pens remained in the bays for years and became landmarks used by anglers and boaters. Although the wooden structures long have disappeared, the site of those in-the-water corrals is still recognized; a handful of spots on bays from East Matagorda Bay to Port Isabel are known as “the turtle pens.”

On the rebound

Decimated sea turtle populations began a slow recovery over the past three decades, thanks to increased protection and a drop in directed commercial harvest outside the United States. Turtle advocates cite rules mandating use of turtle excluder devices on shrimp trawls operating in U.S. waters as a factor in the recovery. While the recent loss of 300 green sea turtles to the freezing weather certainly cuts into the population, the toll shows Texas bays are attracting and supporting a growing number of the big marine animals. By some estimates, the freeze killed more green sea turtles than lived in Texas waters just a couple of decades ago. And an unknown but almost certainly significant number of turtles were not impacted by the cold snap. “We hate to lose turtles like this,” Ray said of the freeze event. “But the good news is that it shows we have gobs more now than we did just a few years ago.”

shannon.tompkins@chron.com

Submitted by: Charles Wax Caillouet

NOAA Takes Delivery of New Fisheries Survey Vessel

NOAA has taken delivery of *Bell M. Shimada*, the agency's newest high-tech fisheries survey vessel.

Bell M. Shimada's primary mission will be to study, monitor and collect data on a wide range of sea life and ocean conditions, primarily in U.S. waters from Washington state to southern California. The ship will also observe environmental conditions, conduct habitat assessments and survey marine mammal, sea turtle and marine bird populations.

The vessel is the fourth of a new class of ships designed to meet the NOAA Fisheries Service's specific data collection requirements and the International Council for Exploration of the Seas' new standards for a low acoustic signature.

"*Bell M. Shimada* represents a significant achievement in the agency's efforts to modernize its fleet of fisheries, oceanographic and hydrographic survey ships," said Rear Adm. Jonathan Bailey, director of the NOAA Office of Marine and Aviation Operations and the NOAA Corps. "This highly capable ship will play a key role in supporting NOAA's mission."

Bell M. Shimada's state-of-the-art design allows for quieter operation and movement of the vessel through the water, giving scientists the ability to study fish and marine mammals without significantly altering their behavior. The ship's comprehensive environmental sampling capabilities will also enable researchers to gather a broad suite of marine life data with unprecedented accuracy.

"As one of the quietest research vessels in the world, *Bell M. Shimada* produces so little background noise that we can count fish and assess the health and behavior of marine species with highly sensitive acoustic devices," said Jim Balsiger, acting assistant administrator for NOAA's Fisheries Service. "The vessel will support ecosystem research that is essential to sustaining and rebuilding fisheries."

Submitted by: Bill Bayliff

The Euro-View

**Bluefin tuna has been fished to the brink of extinction
The EU must not let Malta destroy the King of fish
Frank Pope**

Two weeks ago a single bluefin tuna sold in Japan for a surreal £111,000. The price of this fish, which ends up in the best sushi restaurants, will carry on rocketing so long as the tuna population keeps plummeting.

The Mediterranean tuna industry, which has taken tens of millions of euros in subsidies, has fished the bluefin to the brink — stocks are within three years of total collapse.

Europe could ban trade in the bluefin — but the nationalistic fervour of one man, Joe Borg, the EU Fisheries Commissioner, is a huge obstacle. So why Mr. Borg's opposition to a ban? Could it be that he is from Malta, where the economy earns £100 million a year from the bluefin?

Apparently it could. Commenting on his five-year tenure, he told *The Times of Malta* that "it is thanks to a lot of hard work at my level and at my staff's level that many of the proposals that are agreed by the commission took into account Maltese sensitivities".

The short-sightedness of helping an important industry to cause its own collapse is staggering. Stavros Dimas, the EU Environment Commissioner, who has been trying to point this out, hails from Greece, another nation with a tuna industry. Unfortunately for him — and the bluefin — once the Maltese have taken a position they don't give it up.

Time is almost up. The Convention on International Trade in Endangered Species (Cites) meets in March to debate banning trade in the bluefin. Cites saved the African elephant from ivory poachers but to save the bluefin, Europe's vote is key. The EU commissioners meet this morning, the last opportunity before the Cites gathering, but the bluefin is off the agenda. José Manuel Barroso, the Commission President, doesn't like arguments; the outcome of every other "college" meeting in the past five years has been agreed in advance by civil servants. Mr. Barroso knows that with Mr. Borg defending Malta's interests, that record would soon be broken.

Nicolas Sarkozy could break the deadlock thanks to the scale of French fishing interests. He proudly announced support for the ban last year but French fishermen bullied him into a U-turn. This week he is expected to make his final call. The tuna may yet win — even though there aren't enough of them left to blockade the ports, as the French fleet is likely to do if they lose.

If President Sarkozy stands tall he could save the day. But if he caves in, the bluefin are in the hands of the 27 commissioners. At the end of their term in office, now is their chance to reach beyond short-term national interests to the future of the king of fish and those who live off it.

Frank Pope is ocean correspondent

*From: Times (London UK), January 19, 2010
Submitted by William Price Davis*

Introducing the transparent ocean

The Census of Marine Life reveals wonders of the deep

Mankind's view of the planet's ocean life will be transformed for ever in 2010. That change will come from the insights gained in a ten-year, \$750m project involving 2,000 scientists from 82 countries and the technological marvels they are using to see across vast reaches of the oceans and to track the travels of individual fish. Emerging from this is what Ron O'Dor, the Dalhousie University scientist who leads the Census of Marine Life, calls the "transparent ocean", revealing what is happening in the seas in three dimensions and over time.

The findings of the census were released in October 2010 in London at a series of public events and scientific meetings. A website, the Ocean Biogeographic Information System (www.iobis.org), will give access to 20m or so records from the census; another, the Encyclopedia of Life (www.eol.org), will record photographs and details of 250,000 marine species. Over the decade, census scientists have explored every ocean realm from near-shore waters to the abyssal plains—which cover a greater area of the Earth than all its land. The frozen seas of the Arctic and Antarctic each had their surveys, too.

Many surprising discoveries were described. Off the coast of New Zealand scientists found a "Brittle Star City", where tens of millions of these creatures live atop a sea mountain, holding their arms up into a swift current that brings them endless supplies of food. In the Pacific, a patch of water proved an unexpected home for thousands of white sharks which swim huge distances to spend half the year there. Why they travel to the "White Shark Café" no one knows. In the Bay of Biscay off France a mini-submarine found giant oysters 20cm (8 inches) across; in the Mediterranean another found gardens of sponges around a cold seep where methane leaks from the sea floor.

The diversity of the oceans that the census reveals exceeds all expectations. So does the extraordinary performance of the new technologies which were pressed into service. Sophisticated ships, advanced sonar, robot submarines and genetic "bar-coding" techniques for fast species identification have all been brought into play.

Ocean Acoustic Waveguide Remote Sensing is an especially exciting advance. This sonar can scan thousands of square kilometres of the shallow-shelf seas at one time and see schools of fish moving within them. Compared with a conventional fish-finding sonar it is a miracle, with a scanning rate that runs a million times faster. Its inventor, Nicholas Makris of MIT, has used it to watch herring hidden in the sea off the coast of Maine. As they headed for their spawning grounds, the 20m fish quickly came together in a school the size of Manhattan. It is the largest mass of life ever seen.

At the other end of the scale, individual fish weighing as little as 20 grams (0.7 ounces) are being tracked by attaching tiny electronic tags to them. The tags send out pulses of sound which can be picked up by undersea receivers. One project already has lines of acoustic sensors on the sea bed from Alaska to California. With them researchers have tracked individual salmon from Rocky Mountain streams all the way to Alaska and can see where they go and where they die on their 2,500km (1,550-mile) migration. Another sensor line runs off the Canadian coast. Others will follow around the world.

Technologies like these have enormous implications for the world, especially in the light of another census project. Not all researchers were at sea; others trawled through historical records, read whalers' diaries and even studied photos of prize fish taken by Floridian anglers to work out the state of the oceans in earlier times.

Their stories are telling us that the oceans were far more productive in the past. Life in the oceans is growing less abundant and big, full-grown adult fish much rarer. There were 27,000 southern right whales off the coast of New Zealand in the 1800s, 30 times as many as there are now. The Florida trophy fish have shrunk from an average size of 20kg to just 2.3kg in only 50 years.

The Gulf of Maine provides a particularly vivid example. Records from the 1880s show that 70,000 tonnes of cod used to be caught each year. Now the take is closer to 3,000 tonnes. The recent data might suggest that cod stocks could be rebuilt to obtain 10,000 tonnes in a year but the older records show that the oceans can be far more productive. "We have the potential to recover that productivity for the benefit of humans, not just so the fish will be happier," says Andy Rosenberg, an expert on the gulf's fisheries from the University of New Hampshire.

That is the big message which will be coming from the census on top of its maps of ocean biodiversity and the new understanding of what lives where and why. In the transparent ocean scientists have the tools to say where fish are, how many of them there are and where they are going. Couple that with knowledge of past riches, and a future in which fisheries are more productive and the oceans much better managed starts to look possible—and very valuable. As the census results become known in 2010, expect an end to simple "doom and gloom" and a much bigger debate over the future potential of the seas.

From: The Economist, Special Issue, "The World in 2010" (received late January 2010): pages 147-148

Submitted by: Bill Bayliff

Under pressure, regulators reverse rules that cut scallop fishing days

**The Associated Press
Portsmouth, N.H.**

Northeast fisheries regulators rolled back sharp scallop catch cuts after heavy political pressure and fishing industry protests drove them to reconsider.

The New England Fishery Management Council voted 10-5 to adopt more lenient rules than restore a 22 percent cut in the number of fishing days, which scallopers said could have cost them hundred of thousands of dollars per boat.

The council initially refused to reconsider, but that changed after Gov. Deval Patrick intervened with the council chair earlier this month.

Members who voted for the change Wednesday said they were correcting a mistake that would have caused a healthy industry major short-term pain for minimal gain. Council member David Pierce said the best science indicates scallopers wouldn't come close to overfishing the stock under more the lenient rules, but the council initially misunderstood it.

In November, the council passed rules that cut fishing days from 37 to 29 this year and eliminated a trip into the Georges Bank fishing area that scallopers said would have netted 18,000 pounds per boat. Wednesday's vote gave scallopers 38 fishing days, but didn't restore the lost trip.

From: Sun Journal (New Bern, NC), January 28, 2010

Another Gift that Keeps on Giving

Stretched military halts cleanup of Florida tire reef

WEST PALM BEACH, Fla. — With the job undone, U.S. military divers won't return this summer to Florida to clean up a failed artificial reef made of thousands of old tires.

The Army and Navy crews are just stretched too thin by conflicts in Iraq and Afghanistan, the war on terror and earthquake relief in Haiti, a Pentagon official said this week.

About 700,000 tires, some bundled with nylon and steel, were sunk in 1972 a mile off Fort Lauderdale in about 70 feet of water with the good intention of creating an artificial reef.

But it became an ecological blunder: Little sea life formed on them and many tires came loose and scoured a patch of the ocean floor the size of 31 football fields.

From: Sun Journal, New Bern, February, 11, 2010

Remember NOAA's "old rubber tire" adventures, in partnership with tire manufactures, of the 1970's? Ed.

End of and Era

Aloha, Northwestern Hawaiian Islands Bottomfish Fishery

NWHI Bottomfish By the numbers

The NWHI bottomfish stock is healthy (not overfished and not experiencing overfishing) as indicated by the most recent stock assessment published by the NOAA Pacific Islands Fisheries Science Center in 2009. For copy of report, visit www.hawaiiibottomfish.info.

Estimated Biomass: 3,026,000 lbs

Harvestable Stock or Maximum Sustainable Yield (MSY): 1,062,000 lbs

2007 Landing: 191,158 lbs

Percent of Harvestable Stock Caught in 2007: 18%

Source: Hawaiian Bottomfish Assessment for 2008. Brodziak, J. R. Moffitt, G. DiNardo. 2009. Pacific Islands Fisheries Science Center, National Marine Fisheries Service.

The tradition of fresh opakapaka, onaga, hapuupuu, butaguchi and other bottomfish from the Leeward Islands could fade into history as the fishery bows out by the New Year. For more than a hundred years, local commercial fishermen braved the unpredictable weather in the 1,200-mile stretch of the Northwestern Hawaiian Islands (NWHI) to return with holds full of fresh fish for our local markets. Fishing ceased for a brief time during WWII but resumed shortly thereafter. The fishery expanded in the 1970s, and the Western Pacific Regional Fishery Management Council brought it under federal management in the mid 1980s. By the late 1990s, the Council managed the healthy fishery through two limited entry programs that capped participation

at 17 permitted vessels and reserved 10 percent of the permits for native Hawaiian communities. The fishery was highly regulated, with a maximum boat size of 60 feet in length and other requirements, and provided about one-half of the locally landed bottomfish in Hawaii. Then, President Bill Clinton, on his departure from office, issued executive orders proclaiming the NWHI as a national reserve, which further constrained the fishery, and he started the process to turn the reserve into a National Marine Sanctuary. On the eve of the anticipated release of the environmental impact statement for the proposed sanctuary, President George W. Bush used the Antiquities Act to establish the NWHI as a Marine National Monument (MNM), which was later named the Papahānaumokuākea MNM. Bush's MNM proclamation included a sunset date of 2011 for this healthy bottomfish fishery, even though federal studies found that it had no significant impacts on the habitat, protected species or the ecosystem.

Congress has since stepped in and mandated that the National Marine Fisheries Service (NMFS) offer a compensation package to displaced NWHI fishermen with the caveat that if the voluntary compensation is accepted, fishing permits must immediately be surrendered prohibiting any further fishing in the NWHI. NMFS published the final rule for this compensation option on Oct. 15, 2009, with a deadline of Nov. 19, 2009, for fishermen to accept the compensation offer. If the compensation offer is not accepted, NWHI bottomfish permit holders will be able to continue fishing until the sunset date of June 15, 2011. As this issue goes to print, it seems the fishery will fade into history by mid December 2009 with all of the permit holders taking the compensation package.

Aloha and mahalo to those who preserved and made this fishery a part of Hawaii's rich ocean-going tradition and culture.

From: Pacific Islands Fishery News, Winter 2010

Coho Protection Threatened

The survival and eventual recovery of coho salmon in the watershed of the Klamath River in northern California depends in large measure on the condition of several tributaries where the fish spawn, especially the Scott and Shasta rivers. So it was especially distressing to coho fans—Natives and fishermen alike—when the state of California issued a blanket “incidental take permit” that gives carte blanche to irrigators to withdraw as much water as they want from the rivers despite the fact that coho are protected under both federal and state law. A superior court lawsuit challenges the permit.

From: In Brief, Winter 1009/10

Home Smoked Salmon

Ingredients

1 cup packed brown sugar
1 cup white sugar
4 tbsp coarse salt
3 cups of hot water (to dissolve sugar and salt)
2 x 4 oz pink salmon fillets with skin (1 averaged size salmon)
BBQ or one burner camp stove
1-2 cups of Hickory or Alderwood chips
½ cup water to wet the chips
Wok with lid
Tinfoil
Steamer stand (bamboo or metal)
This can be done inside the house if you have a well ventilated stove.

Cooking Directions:

Add salmon, skin side up, to brine, pressing to submerge. Cover and refrigerate overnight. This step is important!! It needs to sit overnight in the fridge.
Remove salmon from brine; discard brine. Rinse salmon under cold water briefly to remove salt.
Place salmon, skin side down, on rack (I use a cooking rack usually used for cookies). Let stand until top is dry to touch (do not pat dry), this takes about 1 hour. This step is important!!
Prepare your wok smoker. Lay three layers of tin foil in bottom of the wok. You must do this to avoid charring the bottom of your well seasoned wok. Add two handfuls of wood chips into the wok and turn onto high. Add ½ cup of water. Position your bamboo steamer over top of the chips. Cover with a lid or tin foil and let smoke for about 20-30 minutes until salmon is firm to the touch and edges are a little brown and caramelized. Try not to peek until the 20 minute mark, all of your good smoke will escape.
Enjoy with a squeeze of lemon. No crackers or cream cheese needed!!

Heather McDermott

Daughter of Dick Beamish

From: NPAFC Newsletter 27, Jan. 2010

Submitted by: Kate Myers

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