

American Institute of Fishery Research Biologists

Promoting excellence in fishery science

...BRIEFS...

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President's Message

It is time again for nominations for AIFRB awards. This is your opportunity to provide recognition of your colleagues who are doing outstanding research in fishery and aquatic science and conservation. We are all busy but it is important to take the time and prepare nominations or encourage others to do so. Nominations are open for the following awards:

W. F. Thompson Award for Best Student Paper published in 2006. Deadline for submitting paper for consideration is April 15. Submit nominations to the Committee Chair, William Bayliff at wbayliff@iattc.org

Outstanding Individual Achievement Award, in recognition of outstanding contributions to our field. Nominations due by June 1. Submit nominations to the Committee Chair, William Fox at Bill.Fox@WWFUS.org.

Outstanding Group Achievement Award, recognizing a group of scientists who have made outstanding contributions in our field. Nominations due by June 1. Submit nominations to William Fox at Bill.Fox@WWFUS.org

If you have questions about how to prepare nominations, contact the Committee Chair.

Linda

Editor's Note: For more details see, for the Thompson Award, Briefs Jan-Feb 2008 and for the Outstanding Achievement Awards this issue, page 4.

Jamal Moss - First recipient of Kasahara Award

Dr. Jamal Hasen Moss, a fishery research biologist at Auke Bay Laboratories (ABL), Alaska Fisheries Science Center, NOAA Fisheries, in Juneau, Alaska, is the first recipient of the Institute's Kasahara Early Career Award. The award was presented to Jamal by three AIFRB fellows (Kate Myers-Washington, Howard Horton-Oregon, and Phil Mundy-Alaska) at the January 2008 Alaska Marine Science Symposium in Anchorage, Alaska.

The Kasahara Early Career Award was recently established by AIFRB to honor the memory of Professor Hiroshi Kasahara (AIFRB Fellow-1970, Emeritus Fellow-2000), and also to recognize the lasting contributions made by Prof. Hiroshi and Mrs. Toshiko Kasahara to international fisheries science and the work of the Institute. The Award is intended to support and encourage the Institute's most promising scientists, who show exceptional potential for leadership at the frontiers of fisheries science and conservation. The Award promotes the connections between fundamental and applied research and highlights the importance of integrating science with public policy for the future of living marine resources and their ecosystems.

Jamal received a B.A. degree in Biology (with honors) from Connecticut College in 1997, and M.S. (2001) and Ph.D. (2006) degrees in Fisheries Sciences from the School of Aquatic and Fishery Sciences, University of Washington, Seattle. His Ph.D. Dissertation, "Spatial patterns in growth, growth potential, and



Dr. Kate Myers, University of Washington School of Aquatic and Fishery Sciences, holds the certificate and the cash for the American Institute of Fishery Research Biologists' Kasahara Award being presented to NOAA researcher Dr. Jamal Moss to her left. Also pictured in front of Moss's poster at the Alaska Marine Science Symposium in Anchorage.is Howard Horton of Oregon-AIFRB and Dr. Phil Mundy of Alaska-AIFRB Photo: John Myers

consumption demand of juvenile pink salmon (Oncorhynchus gorbuscha) in the Gulf of Alaska," was published in a series of peer-reviewed scientific journal articles, as contributions to the US Global Ocean Ecosystems Dynamics (GLOBEC) Program. His current research interests are focused on determining the effects of climate on the trophic ecology, production, and status of juvenile salmon and other members of the epi-pelagic fish communities of the Chukchi and eastern Bering Seas. In the two years since his graduation from the University of Washington, Moss has served as President of the American Fisheries Society

The AIFRB is a 501(c)(3) taxexempt nonprofit organization (EIN 61-6050711). Alaska Chapter, as a member of the Bering-Aleutian Salmon International Survey (BASIS) Working Group of the North Pacific Anadromous Fish Commission (NPAFC), and as Rapporteur of the NPAFC's Committee on Scientific Research and Statistics (CSRS) at their 15th Annual Meeting in Vladivostok, Russia in October 2007.

The Award included a certificate of achievement from the Institute and a check for \$2,500. When we asked Jamal what he plans to do with the cash award, he said: "My hope is to head to the Arctic to give a seminar on marine research in Alaska's Arctic region and a short course on what opportunities are out there in the field of fishery biology. The class would be targeted toward young adults, and would include information on which agencies do what work, where to look for information on the internet, professional societies, colleges and graduate schools, etc. My plan is to get linked up with leaders from the North Slope Borough to see if they would be willing to meet with me." We wish Jamal the best in fulfilling this worthwhile goal and in all of his future endeavors as a professional fishery research biologist.

Research Assistance Awards Available

The Research Assistance (RA) Award established in 1986 is offered annually to American Institute of Fisheries Research Biologists (AIFRB) graduate students and other Associate members to support travel expenses associated with professional development. The AIFRB RA provides a maximum award 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. All AIFRB Associate Members in good standing are eligible (www.aifrb.org). An individual may receive one award 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 AIFRB RA 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 1700 EDT on June 13, 2008.

More Travel Funds! ICES

Funds are available to support travel by young scientists to the ICES Annual Science Conference, Halifax, Nova Scotia, Canada, September 2008.

This announcement is directed at young scientists who are attending the ASC for the first time and who generally are within 7 years of receiving their PhD.

Funds for travel are made available through an NSF grant to Dr. John Steele at the Woods Hole Oceanographic Institution, Delegate to ICES, the International Council for the Exploration of the Sea.

Submitted by: Edward D. Houde

University of Maryland Center for Environmental Science Chesapeake Biological Laboratory P.O. Box 38, Solomons, MD 20688 USA / Tel. (410) 326-7224 / Fax. (410) 326-7210

Fox Retires From NOAA

Dr. William Fox (Director, Southwest Fisheries Science Center and past Assistant Administrator, NMFS) retired this week after 40 years of association with NOAA. Bill's professional career began in 1967 as a fishery biologist with the US Fish and Wildlife Service in Miami, while he was attending the University of Miami, receiving both Bachelors and Masters of Science degrees. Bill received his PhD in Fisheries Science and came to the Southwest Fisheries Science Center (SWC) in 1972, where he focused on stock assessments and the developing tuna/dolphin issues. He left the SWC as the Chief of the Oceanic Division and went to serve as the Director, Southeast Fisheries Science Center in Miami for 5 years. From there he moved literally across the street to become Professor and Director of the Cooperative Institute for Marine and Atmospheric Studies at the University of Miami's Rosenstiel School of Marine and Atmospheric Science, where he also served on the State of Florida Marine Fisheries Commission and the US Marine Mammal Commission with terms as Chairman of both. Bill returned to NOAA as Assistant Administrator for Fisheries from 1990-1993, when he led the agency through a number of difficult issues. This was followed by other positions



in Headquarters including Director, Office of Protected Resources and Director, Office of Science and Technology. In 2004, Bill retured to the SWC as the Director. He is now with World Wildlife Fund, as a vice president responsible for developing and managing their fisheries program and will be based in San Diego.

Peace Corps Calls

Peace Corps seeks experienced Agriculture Professionals who are interested in serving others while experiencing the adventure of working overseas. As part of its on-going effort to bring more skilled and knowledgeable Volunteers to underserved populations, the Peace Corps is reaching out to professionals in the agriculture sector and encouraging them to apply today.

Agriculture Volunteers work with farmers to improve local diet and increase income. Project areas include soil quality and water conservation, fisheries, beekeeping and honey production, organic vegetable gardening, and nutrition education. Agriculture volunteers also work with farmer cooperatives, nongovernmental organizations, and agribusinesses. Currently there is a high demand for skilled agriculture experts to serve in countries throughout Africa, Central and South America, Central Asia, and the Pacific.

Volunteers come from all walks of life with varied experiences and backgrounds. Many have a bachelor's degree and a strong interest in agriculture and gardening, while others have specialized degrees and experience in agricultural and animal sciences, as well as agribusiness. Volunteers without post secondary education come with a lifetime of practical experience and are able to share skills and provide a wealth of knowledge to local community members.

To learn more about opportunities for Agriculture Volunteers, call 1.800.424.8580 or visit: www.peacecorps.gov/minisite/index.cfm?shell=agriculture&cid=prag

The Peace Corps is celebrating a 47-year legacy of service at home and abroad. Since 1961, over 190,000 Volunteers have helped promote a better understanding between Americans and the people of the 139 countries where Volunteers have served. Peace Corps Volunteers must be U.S. citizens and at least 18 years of age. There is no upper age limit.

Contact: Bart Kendrick, (202) 692-1819

Fellow Bell Shimada Honored Posthumously

Student Team From California's Marina High School Names NOAA's Newest Fisheries Survey Vessel

Five students and their biology teacher from Marina High School in Marina, California have won the "Name NOAA's New Ship" contest. The National Oceanic and Atmospheric Administration selected their entry, BELL M. SHIMADA, for a new 208-foot fisheries research vessel that is currently under construction.

Since September 2003, NOAA has used its Fleet Modernization Program to promote marine science education and ocean literacy by engaging students and teachers in the ship naming process. Thousands of students from around the country have participated in four regional contests sponsored by NOAA's Office of Education.

The 2007 contest had teams of four to eight students research potential names of their choosing for the ship, and submit an essay addressing the theme of "the oceans and humans are interconnected" to support their selection. Essays were judged on imagination and creativity, initiative in researching ocean and fishery science, and demonstrating ocean literacy.



Sho Nguyen, Jessica Kim, Don Livermore (Marina Principal), Desiree Duenas, Max Orfield, and Sarah Livingston-Reed.

This latest contest was open to students in middle and high schools throughout California, Oregon, and Washington. Though its home port hasn't been determined, BELL M. SHIMADA will operate off the West Coast and into the eastern tropical Pacific Ocean. She is the last of four new NOAA research vessels of the same advanced noise-quieted design.

The team of ninth grade students, led by biology teacher Myah Gunn, included Jessica Kim, Sarah Livingston-Reed, Max Orfield, Desiree Duenas, and Sho Nguyen. They were invited to attend the ship's keel laying ceremony in Moss Point, Mississippi on June 15, 2007.

The ship's namesake was known for his contributions to the study of tropical Pacific tuna stocks. Following an invitation from W.F. Thompson, Shimada was admitted as a Fellow of the Institute in 1958.

Four Losses:

DR. CARL E. BOND, M'63, F'73, EF'88, passed November 12, 2007 4650 SW Hollyhock Circle, Apt 220, Corvallis, OR 97333-1753

CLARK HUBBS, passed February 3, 2008

DR. GEORGE C. GRANT, EF '93, passed April 1, 2006

PO Box 709, 1425 Laurens Road, Gloucester Point, VA 23062-2013

HOWARD A SCHUCK, F'73, EF'77, passed July 6, 2007

Mrs. Elinore W. Schuck, Desert Point, 10701 N. La Reserve Drive #356, Oro Valley, AZ 85737

Members at Work: Grimes et alii

Ecology of Juvenile Salmon in the Northeast Pacific Ocean: Regional Comparisons

Understanding the interaction between Pacific salmon and their environment is critical for salmon management. This book presents recent advances in our understanding of the ecology of salmon in the North Pacific and Bering Sea and the influence of ocean climate on the life history and population dynamics of Pacific salmon stocks. Focuses on regional comparisons of salmon ecology south and north of the British Columbia transition zone where ocean conditions effect salmon production in opposite phase.

Churchill B. Grimes, Richard D. Brodeur, Lewis J. Haldorson, and Stewart M. McKinnell, editors

247 pages, Symposium 57, Published by the American Fisheries Society, Publication date: November 2007

ISBN-13: 978-1-888569-95-7

\$69.00 list price, \$48.00 AFS members

To order: http://www.afsbooks.org/54057p.html

Keystone Meeting: Y'all Come!

Keystone District Luncheon Meeting Announcement

The Keystone District Director/Regional Director would like to invite you to attend a special AIFRB-Keystone District luncheon meeting on April 17th 2008 at 12 noon. This meeting will be held in conjunction with the Department of Ichthyology at the New York State Museum (Albany, NY) coincident with Northeast Natural History Conference X.

This luncheon meeting will give us the opportunity to share our thoughts on fisheries issues, discuss our individual research programs, explore ideas regarding AIFRB, and to introduce ourselves (AIFRB) to potential new members.

Two year's ago we held an informal Keystone District meeting at the Northeast Natural History Conference IX and this resulted in the recruitment of new members. We hope, via this 17th April 2008 meeting, to bring greater exposure to AIFRB and the value of membership within it to our scientific colleagues.

Hopefully you will be able to attend. Please feel free to bring along your research colleagues and students.

For further details please contact the Keystone District Director, Joseph Rachlin at joseph.rachlin@lehman.cuny.edu

Nominations Needed: Outstanding Achievement Awards Deadline June 1, 2008

The Outstanding Achievement Awards are the highest recognition given by AIFRB to individuals and to research groups. We are again soliciting your nominations for these two Awards. This is your opportunity to provide nominations and help AIFRB recognize the individuals and organizations that have made outstanding contributions to our science.

Individual Achievement Award is given to an individual who has made significant contributions to the advancement of fishery science. This is the highest AIFRB award for achievement. Candidates are rated on the following criteria: significance of publications, exceptional service to the profession, outstanding teaching or training of students, important discoveries or inventions, and significant contributions to the advancement of fishery science.

Group 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 will be rated on the following criteria: sustained contribution of significant publications, exceptional service

to the fishery profession, outstanding teaching or training programs, important discoveries or inventions, and significant contributions to the advancement of fishery science.

To nominate an individual or research group: Submit a letter fully describing how the nominee meets the criteria for the award. Include the name, address, telephone number and email address of the nominee and a short resume of the nominee. Please include your name, address, telephone number and email address so the Committee can contact you for further information if needed.

Nominations due: June 1, 2008. Submit nominations to: Dr. William Fox, World Wildlife Fund US, PO Box 60633, San Diego, CA 92166. If you have any questions, please contact: Bill Fox at Bill.Fox@WWFUS.org, Jack Helle at Jack.Helle@noaa.gov, Bill Taylor at Taylorw@msu.edu.

Previous Awards for Individual Outstanding Achievement Award

Recipients 1979 - 2008: Elbert H. Ahlstrom, James E. Sykes, F. Heward Bell, Richard H. Stroud, Kenneth D. Carlander, David W. Schindler, Peter Larkin, William G. Gordon, William F. Royce, Reuben Lasker, Robert L. Burgner, William W. Fox, Arthur D. Hasler, William E. Ricker, Raymond J.H. Beverton, Reeve M. Bailey, William G. Pearcy, John H.S. Blaxter, Saul B. Saila, John R. Hunter, Kenneth E. Wolf, Fred Utter, Howard Bern, Brian Rothschild, John Fryer, Geoffrey Moser, Peter Moyle, John Magnuson

Group Outstanding Achievement Award

Recipients 1982-2003: Canadian Journal of Fisheries and Aquatic Sciences; Great Lakes Sea Lamprey Control Program; Harvesting Technology Division, NMFS, Pascagoula, MS; Sport Fishing Institute; International Pacific Halibut Commission; Southwest Fisheries Center, NMFS, La Jolla, CA; Cooperative Fish & Wildlife Research Units Center & Related Coop Units; International North Pacific Fisheries Commission; The Illinois Natural History Survey; National Fish Health Research Laboratory, USGS, Kearneyville, WV; International Pacific Halibut Commission; The Great Lakes Fishery Commission; Northwest Fisheries Science Center, Ecotoxicology Research Team

Klamath Tribes Announce Approval of Historic Agreement

On Saturday, February 2, Klamath Tribal members braved a major winter storm to attend an historic General Council meeting in Chiloquin, CA, where they discussed and debated whether to approve the Klamath Basin Restoration Agreement (KBRA). At the end of the meeting, the General Council overwhelmingly voted to "Endorse and Support" the KBRA. Klamath Tribal Chairman Joseph Kirk remarked, "What to do with the Restoration Agreement is perhaps the most important issue for the Klamath Tribes in decades. General Council's decision to endorse the Agreement moves the Klamath Tribes and our partners one step closer to a more sustainable future based upon cooperation among neighbors."

The KBRA is the outcome of more than 2 years of intense negotiations among long-time opponents in the Klamath Basin. A complex Agreement, the KBRA includes major programs to restore anadromous fish to the Upper Klamath Basin, restore river and lake habitats for fish, resolve legal battles over water between the Tribes and the Klamath Irrigation Project, and improve economic conditions for Tribes and irrigators. Jeff Mitchell, Klamath Tribal Councilman, stated "The importance of this decision to the Klamath Tribes and the rest of the Basin cannot be overstated. It certainly demonstrates to all Basin residents that the Klamath Tribes are committed to a better future for all."

The KBRA is structured around the central assumption that an agreement to remove the lower four Klamath River Dams will be reached with PacifiCorp. Parties to the KBRA are presently engaged in fast-paced, confidential negotiations with PacifiCorp to resolve this and related issues.

In addition, work remains to resolve legal battles over water in the Basin upstream of Upper Klamath Lake. Despite serious attempts, such resolution was not achieved in the KBRA, but the Agreement lays out a new strategy for these negotiations. Mitchell said "The Klamath Tribes are waiting for irrigators above the lake to join us in negotiations to resolve the conflicts over water. All of us share the same goal of having a stable and prosperous future, and we want to pursue that goal with our neighbors above the lake, just as we have already done with irrigators below the lake."

Klamath Tribal Councilman Will Hatcher called on other KBRA participants to move quickly to approve the Agreement, because little time remains for the present Administration, which has been supportive of the KBRA process. Asked if the KBRA participants could get the rest of the job done this year, Hatcher responded "Well, people were saying we would never reach the kind of Agreement we now have in the KBRA, but we proved them wrong. Time is of the essence, but I wouldn't underestimate the power of this diverse group to continue to achieve the impossible."

Two years of negotiation among 26 diverse stakeholder groups, the Klamath Settlement Group has produced a draft agreement to settle many of the key issues that have for years divided the Klamath Basin's diverse communities. If adopted, the agreement would represent the largest river restoration effort in American history. The meetings producing the agreement were convened by the Yurok Tribe, Karuk Tribe, and Klamath Water Users Association. According to Maria Tripp, Yurok Tribal Chair, "This is a historic moment for the Yurok people and all other Klamath Basin communities. For many generations, the Yurok people have witnessed a steady decline in the health of the river and the life that it sustains. Implementation of this agreement,

coupled with removal of the four PacifiCorp dams from the Klamath River, turns the tide from degradation to restoration. These agreements will enable our children's children to have the same cultural experiences and memories of the river and fish that our families enjoyed a hundred years ago."

The proposal addresses the needs of fish and farms. It provides a reliable and adequate allocation of water to farms and wildlife refuges, addresses the need for affordable power for Klamath Project irrigators who move water between farms, wildlife refuges and to the river. At the same time more water will be made available to the lower river to for the benefit of fisheries and coastal communities. Proponents of the agreement see it as a giant leap forward in the effort to restore the entirety of the Klamath basin. According to Klamath Irrigation Project farmer Steve Kandra, "The proposed agreement provides stability and security to Klamath Basin communities. It provides for a predictable supply of water for farmers, resources to address times of water shortage, and affordable power for efficient water use. By implementing this agreement we can spare the next generation of family farmers and ranchers from a lifetime of neighbor against neighbor litigation, media wars, and economic uncertainty."

This sentiment was echoed by Glen Spain of the Pacific Coast Federation of Fishermen's Associations (PCFFA), a major fishing industry trade association also in the negotiations: "For decades now, the Klamath Basin has been gripped in rotating water crises each year, with many good people, including farmers and fishermen, all too often pitted against one other. While this proposed Agreement is not yet final, we look forward to working with our friends in the farming and tribal communities to finalize and approve the agreement soon."

The groups are optimistic that a deal to remove PacifiCorp's lower four Klamath dams is possible. According to Steve Rothert, director of the California office of American Rivers, "we have a plan to put the Klamath Basin back together ecologically as well as economically, but we can't do it without PacifiCorp as a partner. We are optimistic that we can forge that partnership with the company in coming weeks." PacifiCorp is the Portland, OR based utility that owns the Klamath dams. PacifiCorp is a subsidiary of Mid-American Energy Holdings Company which in turn is owned by Warren Buffett's Berkshire Hathaway. Since construction of the ladderless dams began in 1918, salmon runs have plummeted in the Klamath River resulting in depressed economies in the Basin and commercial fishery shutdowns along the west coast. River advocates argue that since the dams generate little energy, provide no diversions of water for agriculture and no flood control, they should be removed.

The case for dam removal was strengthened recently by economic reports from state and federal energy agencies that concluded dam removal is cheaper for PacifiCorp's customers than financing the upgrades needed to comply with federal mandates for fish ladders. Studies by the California Energy Commission show that the energy from the dams can be cost-effectively replaced with renewables and efficiency measures. "We have a unique opportunity for a business deal that delivers advantage to the fish and benefit to PacifiCorp. We can and should do both," commented Chuck Bonham of Trout Unlimited. "We have a real opportunity to solve one of the West's most complex and bitter water wars, we now look to our communities, the citizens of the Basin and to PacifiCorp for their input and assistance," concluded Klamath Water Users Director Greg Addington.

The groups have more talks with PacifiCorp planned in coming weeks. The proposed agreement and an executive summary are available online at: www.edsheets.com/Klamathdocs.html

California salmon population has reached a near-record low

The Associated Press

SAN FRANCISCO - The number of chinook salmon returning to California's Central Valley has reached a near-record low, pointing to an "unprecedented collapse" that could lead to severe restrictions on West Coast salmon fishing this year, according to federal fishery regulators. The sharp drop in chinook, or "king," salmon returning from the Pacific Ocean to spawn in the Sacramento River and its tributaries this past fall is part of broader decline in wild salmon runs in rivers across the West.

The population dropped more than 88 percent from its all-time high five years ago, according to an internal memo sent to members of the Pacific Fishery Management Council. Regulators are still trying to understand the reasons for the shrinking number of spawners; some scientists believe it could be related to changes in the ocean linked to global warming. Only about 90,000 returning adult salmon were counted in the Central Valley in 2007, the second lowest number of record, the memo said. The population was 277,000 in 2006 and 804,000 five years ago. It's only the second time in 35 years that the Central Valley has not met the agency's conservation goal of 122,000 to 180,000 returning fish.

From: Sun Journal, New Bern, NC - January 30, 2008

If North Carolina, Why Not Portugal? New Saltwater Fishing License in Land of Prince Henry

The European Fishing Tackle Trade Association (EFTTA) is urging governments across Europe to carefully consider how fishing licenses are implemented. Since January 2007, sea anglers in Portugal have been required to purchase a license. Licenses cost 12 Euro for land licenses and 60 Euro for boat licenses. However, to their astonishment, anglers have found out that 50% of these revenues have been allocated towards compensation for commercial fishermen!

EFTTA President, Gregg Holloway said "We do not feel that sea licenses for recreational fishermen are a bad thing if the money raised by those licenses is put back into improving fishing habitats, conservation and better and more access to fishing waters for anglers. But the sea angling license introduced in Portugal in January does none of this."

Before licenses were mandatory, Portugal had between 750,000 and one million sea anglers. However, EFTTA now has concerns that this ill-conceived plan may drastically reduce participation and have negative ramifications to the economy. If similar license plans are implemented elsewhere, there are concerns there may be reductions in Europe's estimated 25 million anglers, which are responsible for approximately 25 billion Euro in economic impact annually.

From: International Angler 69(6) Nov.-Dec. 2007

Government Defies Court Order to Protect Salmon

Earthjustice Forced Back to Court

Toxic pesticides have been detected in the major salmon and steelhead rivers in the Pacific Northwest and California. Scientists have found that even at low levels, toxic pesticides can harm salmon and steelhead by causing abnormal sexual development, impairing swimming ability and predator avoidance, and reducing growth rates.

Five years ago, Earthjustice won a federal court case that ordered the federal government's pesticide experts to review these pesticides with the government's salmon experts. The court ordered the Environmental Protection Agency to consult with the National Marine Fisheries Service to develop permanent methods for protecting salmon and steelhead from 54 toxic pesticides found in West Coast salmon streams. The court also ordered that spray and application buffers be used during the consultation period.

Since then, EPA has taken minor steps to comply by submitting documents to NMFS regarding the effects of the pesticides on salmon and steelhead. But NMFS has ignored the court order and failed to identify a single measure needed to protect salmon and steelhead from the pesticides or to complete any of the required consultations. The federal Endangered Species Act requires NMFS to complete such actions within 90 days.

So on November 5 Earthjustice attorney Joshua Osborne-Klein filed a new lawsuit against NMFS to force compliance with the five-year-old court order and the Endangered Species Act.

Earthjustice brought the suit on behalf of the Northwest Coalition Against Pesticides and the Pacific Coast Federation of Fishermen's Associations.

From: In Brief, Winter 2007-2008

World's First Sustainable Tuna Fishery Certified

MSC-Certified Tuna Available in Stores

Consumers can look for sustainably caught tuna at retailers across the country, now that the Marine Stewardship Council has certified the first sustainable tuna fishery - a move that could help save one of the world's most valuable fish from extinction. The San Diego-based American Albacore Fishing Association (AAFA) was MSC-certified in September. The MSC, which World Wildlife Fund (WWF) helped found, is an independent nonprofit organization that ensures fish are caught according to strict methods that avoid overfishing and "bycatch," the accidental - and usually fatal - capture of marine species in gear not meant for them

AAFA is a small, family-run fishery whose members pride themselves on the care they take to protect the marine environment. "Most of the fishermen who are left love the ocean," says Skipper Jack Webster. "You've got to love it because it's real hard work. Being certified sustainable is important to us. Fishermen who are doing the right thing should prove that they are and talk about it - that's what this certificate is all about."

With an export catch valued at \$5 million in 2002, the world's tuna fisheries face a number of urgent threats, including

declining stocks, poor fishing and management regulations, and significant bycatch. Seven of the world's most commercially viable tuna species are overexploited; albacore, Atlantic bluefin, bigeye, Pacific bluefin, skipjack, southern bluefin and yellowfin. "If we want our grandchildren to have tuna on their dinner plates and in the sea, sustainable fishing practices must be adopted," says Meredith Lopuch, director of WWF's Community Fisheries Program, which sponsored AAFA's certification assessment.

AAFA represents American commercial fishing vessels engaged in harvesting albacore using "poll and troll" methods, in which they fish with barbless hoots and land one at a time by hand without nets. The fishery's 21 vessels account for about 30 percent of the albacore caught using poll and troll methods in the North Pacific. The method seldom captures nontarget species, so bycatch is low, and impacts on habitat are believed to be negligible. In contrast, longline tuna fisheries deploy more than 1 billion hooks a year and capture and kill many nontarget species including seabirds, sea turtles, marine mammals, sharks and other fish

AAFA families have struggled since American canners moved processing operations offshore, and the majority of albacore purchased by American canners is longline-harvested. Pricing instability and little-to-no domestic demand has created an uncertain future. Since receiving the MSC certification in September, however, AAFA's prospects have begun to look up: Just two months later, the AAFA's price per ton had risen significantly. "We hope to encourage and inspire not only consumers, but other fisheries that harvesting in a sustainable manner is good for a fishery and its fishing families, and is the only direction for the future," says Natalie Webster, AAFA's administrator. (Sic)

From: Focus, January-February 2008

Approved shark plan

The Atlantic States Marine Fisheries Commission's (ASMFC) Spiny Dogfish and Coastal Shark Management Board has approved the Interstate Fishery Management Plan (FMP) for Atlantic Coastal Sharks for public review and comment.

Sharks are a commercially harvested species in North Carolina. Since the ASMFC has jurisdiction in the federal waters between three and 200 miles offshore of the state, any FMP created by them could affect fishing in the state.

The draft FMP addresses the management of 39 shark species. It proposes management measures for state recreational and commercial shark fisheries, including permitted species, regions, seasons, quotas, possession limits, size limits, protection of nursing and pupping grounds, authorized gear, dealer reporting, research, display, finning and bycatch reduction.

Coordinated state management is a vital step toward establishing healthy self-sustaining populations of Atlantic coastal sharks. many species have been in a depleted state and are vulnerable to collapse if fishing pressure continues as it has in recent years. Most of these sharks utilize state water coastal estuaries and bays as pupping grounds and nurseries. The draft FMP proposes to protect depleted shark stocks while they are in these areas during the most vulnerable stages of their life cycles.

According to summaries of the stock assessments: Porbeagle sharks were overfished as of 2005, but overfishing isn't occurring. There is a 70 percent chance to rebuild the stock in 100 years; Dusky sharks have been heavily exploited in the Atlantic and the Gulf of Mexico as of 2006; The NMFS has changed the status of the Large Coastal Shark complex in the Atlantic region from overfished to unknown; Finetooth sharks appear to be neither overfished nor to be undergoing overfishing, according to the 2007 Southeast Data, Assessment and Review (SEDAR), though the NMFS hasn't released a declaration on it; Blacknose sharks are overfished and likely undergoing overfishing, but the status could change substantially in the next SEDAR assessment; Atlantic sharpnose sharks show a continuous decline in its spawning stock, though they're not currently considered overfished or undergoing overfishing; Bonnethead sharks aren't overfished, but mortality rates have recently fluctuated and could exceed the threshold.

According to the N.C. Division of Marine Fisheries (DMF) stock assessments, sharks in general are listed as "concern," meaning they show an increased effort, declining landing, truncated age distribution or are negatively impacted by factors that can't be controlled. Sharks are commercially harvested in North Carolina. According to the DMF's preliminary commercial landings report for the January-June season of 2007, the most recent commercial landings report, 158,101 pounds of sharks were landed during the season. This is a decline from the January-June season of 2006, where landings were reported at 378,582 pounds.

Reporter Mike Shutak contributed to this story. From: Carteret County (NC) News Times, January 2006

Costa Rican Ocean Plan

Costa Rican waters harbor nearly 4 percent of the world's marine species, which thrive among coral reefs, mangroves, bays, gulfs, cold seeps, fjords and oceanic islands. Since April, the Nature Conservancy has led a collaborative process with governmental and nongovernmental agencies to develop, by the end of the year, Costa Rica's first national marine conservation strategy. The strategy would finally elevate the nation's ocean waters to the same level of importance given to its forests.

From: Nature Conservancy, Winter 2007

2007 shad runs mixed; populations up in most rivers

Biologists around the watershed reported mixed results for the 2007 year's American shad run. A quirky cold snap in the middle of the spring spawning run hampered egg collection efforts, so overall stocking was down from last year, although officials reported that they still met stocking goals on most rivers. The cold snap also put the brakes on fish migration for about three weeks, making it difficult to gauge the strength of this year's spawning run. "It's hard to get a handle on what the run really was like because of that," said Dean Fowler, a fisheries biologist with the Virginia Department of Game and Inland Fisheries. Overall, biologists said the run appeared average and were optimistic that the region's shad restoration efforts-which date to the early 1990s in most rivers-were slowly showing results.

The main exception was the Susquehanna, where restoration work has been under way since the 1970s. Efforts on the river have been plagued by fish passage and stocking problems in recent years. The dismal number of fish counted this spring at the Conowingo Dam: 25,464-is the lowest since 1993. Shad populations along the East Coast have been at near-record lows in recent decades, the result of overfishing, pollution and the closure of historic spawning areas by dams and other obstacles. The sharp drop resulted in a moratorium on shad fishing since 1980 in Maryland, 1982 on the Potomac River and 1994 in Virginia. Also, the Atlantic States Marine Fisheries Commission, which manages migratory fish along the East Coast, has ended shad fishing in the ocean. State and federal agencies, nonprofit organizations, Native American tribes and others throughout the watershed in recent years have not only stocked hundreds of millions of shad, but worked to remove dams and build fish passages to reopen areas long closed to the migratory fish. As a result, shad populations in many rivers have been trending up, although at a fraction of their historic levels.

Shad are doing best on the Potomac which has maintained the healthiest shad population in the Chesapeake-and along the entire East Coast-and supplies most of the eggs for stocking efforts in other rivers. Surveys on the river this spring captured 30.9 shad per net-the third best in the 13-year-old survey, said Jim Cummins, a biologist with the Interstate Commission on the Potomac River Basin. The average is 22.8, but Cummins noted that runs have nearly doubled since the first five years of the survey, when the average was just 14.8.

In Virginia, biologists stocked 12.5 million shad, down from 16 million last year, but well above the state's stocking targets. Nearly 6.5 million went into the James River system, including its tributaries: the Appomattox, Rivanna and Slate. Almost 5.5 million went into the Rappahannock River above Fredericksburg-where the Embry Dam was removed in 2004-and in a tributary, the Hazel. The remainder of the larvae went into the Potomac and Pamunkey rivers to replace spawning fish taken for the hatchery program.

While this year's stocking effort was strong, Fowler said he was concerned about the survival of the fish. Studies conducted by the department indicate that larvae survival is poor when river flows are below normal in June and July, as was the case this year. "We were hoping for a normal flow this summer," he said. "It's very disappointing. We worked very hard this spring to try to compensate for the weird weather and we ended up exceeding our quotas. But with Mother Nature doing what she's done, it doesn't look good for this year class."

Nonetheless, biologists see evidence that the James River stocking program, launched in 1994, is paying off. Until 2003, hatchery-reared fish accounted for 78-91 percent of the spawning population in the river. But in 2006, only 44 percent of the fish sampled originated from the hatchery. The rest were offspring of hatchery-reared fish that had successfully returned to spawn. "That's only one year," Fowler cautioned. "Nonetheless, we'd like to see that happening." The goal of all the hatchery programs is to eventually establish populations that can maintain themselves without stocking.

In Maryland, stocking efforts were also down. Brian Richardson, a biologist with the Maryland Department of Natural Resources, said 1.6 million American shad were stocked in the Patuxent, Choptank and Nanticoke rivers, down from 3 million last year. Still, shad runs appeared solid, especially on the Patuxent, where shad have been stocked since 1994. "I think we saw about what we expected," Richardson said. "It wasn't a huge run." Delaware stocked 231,000 fish in the Nanticoke and two of its tributaries, Broad Creek and Deep Creek, said Mike Stangl, of the state's Department of Natural Resources and Environmental Control. That was less than half of last year's 513,000. Stangl said stocking was hindered because returning fish were smaller, and appeared younger, than last year, so females had fewer eggs. Also, only 29 percent of the eggs were viable. "There was an obvious lack of larger females this year," he said. The worst news was on the Susquehanna, where only 1.4 million were stocked, far below the river's 10 million goal. Much of this year's production was lost when water in the mountain stream feeding the hatchery turned acidic. "I think acid precipitation is finally getting to us," said Mike Hendricks, a biologist with the Pennsylvania Fish and Boat Commission.

Hatchery efforts have been plagued by a series of problems in recent years. The 10 million goal was met only once since 2000-in 2003, a year when the survival of stocked larvae was low because of bad weather conditions, Hendricks said. Compounding the problem, few fish are making it through passages at four hydroelectric dams to reach spawning grounds, so little natural reproduction is taking place. In the 1990s, the utilities owning the four dams-Conowingo, Holtwood, Safe Harbor and York Haven-invested tens of millions of dollars building fish passages. This year, only 192 shad made it past all four-the

lowest since 2000, when the final passage was opened. The number of fish returning to the Conowingo Dam-the first dam encountered by migrating shad-has dropped steadily since hitting a recent high of 193,574 in 2001. "We need to improve fish passage. That is clearly the missing link in terms of getting the fish restored," Hendricks said. He said state and federal officials hope to negotiate new fish passage goals as dams come up for relicensing with the Federal Energy Regulatory Commission over the next decade. If each dam was able to pass at least 75 percent of the fish that get above the previous dam, biologists believe the long-term goal of getting 2 million shad upstream could eventually be met, Hendricks said.

While passage has generally been good at Conowingo and Safe Harbor, it has been poor at the other two dams. Changes are in the design stage at Holtwood that could improve shad passage.

From: Bay Journal, September 2007

North Sea Cod Quotas Raised Against Scientific Advice

Fisheries ministers of the 27 countries of the European Union had their traditional all-night pre-Christmas bargaining session to assign catch quotas for the region's beleaguered fisheries. And in a continuation of another tradition, they ignored scientists' advice and increased the catch of North Sea cod that will be allowed in 2008 by 11%. North Sea cod has been under such stress that independent scientists have asked the ministers repeatedly for a ban on fishing it. The ministers have not increased catches in recent years, but have also not stopped them.

Last year there was a slight upturn in the number of baby cod surviving to adulthood – a number that varies widely year by year, mainly depending upon the environmental conditions. This is the reason ministers gave for increasing permitted catches. Environmentalists say the increase is premature. "The EU's own scientists have said that North Sea cod stocks are in such trouble the quota must be reduced," says Willie Mackenzie of the environmental group Greenpeace, calling the increase "breathtaking stupidity".

From: New Scientist

Little Holiday Cheer for Federal Science Agencies: Congress Finishes FY 08 Appropriations

Concluding a year-long budget fight laced with numerous veto threats from the Bush Administration, Congress compromised by cutting more than \$20 billion in discretionary funds to meet the President's Fiscal Year (FY) 2008 federal budget request. The House of Representatives passed a \$473.5 billion omnibus appropriations bill (HR 2764) 17 December, which included \$31 billion for the war in Afghanistan. The Senate subsequently added an additional \$40 billion for the war in Iraq to bring the total to \$555 billion to fund all remaining federal agencies and programs. Included in this final amount is an estimated \$15.3 billion in congressional earmarks. Prior to the omnibus, the only spending measure to become law was the FY 2008 Appropriations for the Department of Defense (H.R. 3222) that was signed by the President on 13 November. Congress quickly passed another continuing resolution (HJ Res 72) on 19 December to keep the government operational through the end of the year.

Disappointing advocates for federal science programs, research and development funding for several government agencies will be below the amounts proposed by the President, and in some cases approved by houses of Congress earlier this year. Quickly derailing the multi-year pledge to double funding for the National Science Foundation (NSF), the FY 2008 omnibus provides NSF with \$6.065 billion, \$364 million less than the President requested and \$434 million and \$488 million less than the House and Senate proposed, respectively. Additionally, the omnibus calls for a mandated rescission of \$33 million from funds appropriated to NSF in FY 2007. Taken together, this means that the NSF budget will increase just 2 percent over its FY 2007 appropriation of \$5.916 billion, below the expected 2.4 percent inflation rate.

The Research and Related Activities account will receive approximately \$4.821 billion dollars in FY 2008, only \$56.8 million above the FY 2007 appropriation. Of significant concern to biologists, is the estimated 2.9 percent decrease from FY 2007 for the Biological Sciences directorate.

Within the Department of Interior, the omnibus bill provided \$1.022 billion for the U.S. Geological Survey (USGS), lower than the \$1.033 billion for USGS approved by the House and slightly more than the \$1.010 billion that the Senate approved. Of note, the various biological science programs within the Biological Resources Discipline (BRD) will receive nearly \$180 million, with the bulk of this funding allocated to biological research and monitoring (\$141.2 million after a mandated rescission), a small increase from the FY 2007 level. Within BRD, contaminant biology will receive \$2 million, the National Biological Information Infrastructure will receive \$6.85 million, and cooperative research units will receive \$16.1 million.

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MARCH, APRIL 2008

President's Message

The final announcement for 2008 for nominating colleagues for the Individual or Group Outstanding Achievement Award is included in this issue of BRIEFS. These awards are very important they not only give due recognition to colleagues who have dedicated their lives to excellence in science and who have achieved so much but also to recognize the advances that have been made in fishery and related sciences. John Kao lectured recently at the Revelle Lecture Forum sponsored by the University of California San Diego and the Neurosciences Institute. Kao discussed his recent publication: Innovation Nation: How America is Losing its Innovation Edge, Why it Matters and How we can get it Back. He noted that 2007 marked the 50th anniversary of the Sputnik crisis, when America rose to a historic challenge by increasing its commitment to scientific research and education. Kao's concern is that our national capacity for innovation - as defined by what could be rather than incremental improvements to an idea - has declined to an all-time low, while China, India, Finland, and Singapore have evolved policies to actively foster innovation. He discussed the critical importance of innovation for the future and believes the U.S. is in a "silent Sputnik crises" in innovation.

The AIFRB Outstanding Achievement Awards are a means to recognize those who are innovators in fishery research and conservation. I hope you will take the time to nominate a colleague or research group which has shown outstanding innovation and leadership in fishery science and conservation for these awards. (Contact Bill.Fox@WWFUS.org)

Linda Jones

Outstanding Achievement Award to Peter Moyle

The Outstanding Achievement Award is the Institute's highest award and is presented to an individual who has made important contributions to fishery science and conservation, has mentored students and colleagues, and has numerous significant publications. Dr. Peter Moyle is the recipient of this award for 2007.

Dr. Moyle has studied the ecology and conservation of freshwater and estuarine fishes in California for over 35 years. He has documented the declining status of many native species in California as well

as the invasions of alien species. The interactions among native and alien species in environments with varying degrees of disturbance have provided the basis for many of his ecological studies.

Dr. Moyle received degrees from the University of Minnesota (B.A. Zoology), Cornell University (M.S. Conservation) and the University of Minnesota (Ph.D. Zoology). He started his career as an Assistant Professor in Biology at California State University, Fresno and then moved to University of California, Davis, where he has remained. He has served as Chair of the Department of Wildlife and Fisheries Biology, and is currently the Associate Director of the Center for Watershed Sciences at Davis.

He has many awards including, recently: Outstanding Mentor Award, UCD (2003) and the President's Chair in Undergraduate Education, UCD (2003-2005, with J. Mount). His teaching has included basic courses in fish biology, wildlife conservation, fisheries, watershed ecology, and nature/culture. He has mentored over 40 graduate students.



Peter Moyle, Outstanding Achievement Award Recipient

His publication record is extensive, with over 160 authored and co-authored scientific papers and six books. Perhaps his most widely known publication is *Inland Fishes of California*, which was recently

The AIFRB is a 501(c)(3) taxexempt nonprofit organization (EIN 61-6050711). completely revised and updated. The 5th edition of the widely used textbook, Fish: an introduction to ichthyology that he co-authored with Joseph Cech appeared in 2004. He is a co-author of the book *Envisioning futures for the Sacramento-San Joaquin Delta* (2007, PPIC.org). And who can forget his publication: Salmon, Wildlife and Wine: Marine-derived nutrients in human-dominated ecosystems of Central California?

Dr. Moyle served as member of the Sierra Nevada Ecosystem Project science team (1994-1996) which developed strategies for the conservation of fish, amphibians, and watersheds in the mountain range that forms the state's backbone (and main source of water). He was a member of the Independent Science Board for the CALFED Ecosystem Restoration Program.

His current research includes ecology of Suisun Marsh fishes and invertebrates; ecology of fishes of Martis and Putah Creeks; biology of Sacramento perch; patterns of aquatic invasions in California; conservation and restoration of flood plains in the Central Valley; health of mountain meadows in the Sierra Nevada; status of California salmonids; and strategies for the restoration of Lahontan cutthroat trout to native streams.

The Outstanding Achievement Award recognizes his great contribution towards the future of fisheries, both through his published textbooks (which are used by thousands of students throughout the US, and internationally), and through his mentorship of countless students and others who love fish.

Linda Jones

NOAA's Distinguished Career Award to Helle

Dr. John (Jack) Helle of the AFSC's Auke Bay Laboratories and a past president of the AIFRB was awarded NOAA's Distinguished Career Award for 47 years of pioneering scientific accomplishments in measuring the ecological basis of marine productivity that makes the ecosystem approach to fishery management possible. From the 1950s to the present, Jack has been a leading innovator of fisheries research in the North Pacific. Never losing his zeal for building long time series of observations on chum salmon his efforts have documented 35 years of continuous data collection at Fish Creek near Hyder, Alaska, the Chilkat and Klehini Rivers in Alaska, and the Quilcene River in Washington. Jack's horizons have grown throughout his career to encompass the broad array of observations that now set the stage for the emerging ecosystem approach to fisheries management. Our current understanding of how ocean physics can drive the production of all species in the Pacific salmon-bearing ecosystems of the North Pacific rely on the foundation of observations that Jack and his colleagues have built. His published works cover a wide range of fisheries topics from single species life histories (describing the underpinnings of international fishery management agreements) and the biology and



oceanography of the Gulf of Alaska, to an examination of the effects of climate change on the Bering Sea. In the process, Jack has fostered international collaborations among US, Canadian, Japanese, Korean, and Russian scientists and interdisciplinary collaborations among climatologists, oceanographers, and molecular biologists.

Jack began his career in fisheries in 1958 in Alaska, joining the staff of the Bureau of Commercial Fisheries (BCF) two years later where he was one of the first scientists to move into BCF's new Biological Laboratory at Auke Bay. His early work at Olsen Bay helped lay the foundations for the current management of salmon fisheries in Prince William Sound, and his works from that era on chum salmon and the intertidal spawning of Pacific salmon are considered classics. Jack's 30-year time series for Olsen Bay salmon proved invaluable in assessing the impacts of the 1964 Alaska earthquake on salmon production and later served as a key baseline of historical intertidal habitat data for the Natural Resources Damage Assessment following the 1989 Exxon Valdez oil spill.

In the 1970s, Jack worked with Canadian and state biologists to prepare data for the anticipated US-Canada Pacific Salmon Treaty. His research broadened to include the effects of climate variability on production of salmon where he applied cutting edge genetic tools to study production of individual salmon stocks. As a measure of the success and innovation of his work, Jack was selected to lead the Federal Stock Identification Team in 1982. Employing a variety of innovative statistical models, the team pioneered the use of a combination of scale characteristics, parasites, and genetic alleles to separate US, Canadian, and Russian stocks of salmon. The allocation of these mixed stock fisheries was the catalyst for success in the negotiations that led to the US -Canada Pacific Salmon Treaty in 1986. Following ratification of the treaty, Jack participated in a number of its technical committees, which were the scientific impetus for the complex process used to set international fishing regulations.

Jack's publications on long time series of age and size of chum salmon documented the dramatic decline in body size during the 1980s and early 1990s that coincided with increasing population abundance. Asian studies showed similar declines in body

size of chum salmon. Based on these studies, the North Pacific Anadromous Fish Commission (NPAFC) in its Science Plan called for research on carrying capacity in the North Pacific Ocean.

As program manager of the AFSC's Ocean Carrying Capacity Program (OCC) at Auke Bay Laboratory, Jack recognized the necessity of collecting oceanographic (physical, chemical and biological) and fish abundance data at the same time in order to make inferences about the impacts of the environment on target species of fish in the Gulf of Alaska. Jack extended the integrated sampling approaches developed for single species by the California Cooperative Fisheries Investigations program and NOAA's Fisheries Oceanography Coordinated Investigations (FOCI) program for understanding an important ecosystem level variable, carrying capacity. The OCC program was later redirected to the Bering Sea to address international treaty obligations.

In 2001, Jack let his OCC program in a partnership with Russia and Japan in BASIS (Bering Aleutian Salmon International Survey) under the auspices of the NPAFC. Jack was elected chair of the BASIS Research Group in NPAFC and led what in the beginning was a study to answer questions about stock-specific distribution of salmon into an international ecosystem study of the epipelagic area of the entire Bering Sea. The Basis data set is widely hailed by ecologists and environmental scientists as an invaluable reference for understanding climate change. The annual BASIS survey now covers one of the largest and most logistically difficult to monitor ecosystems in the world.

For half a century, Jack has made invaluable contributions to our understanding of fishery biology in the Northeast Pacific Ocean. Jack exemplifies the interdisciplinary spirit of NOAA and represents what a biologist can accomplish in a lifetime.

By Gary Duker

Fellow Yoklavich Co-Authors Best Paper 2007 Fishery Bulletin

Mary Yoklavich and Tara Anderson of NOAA's Southwest Fishery Science Center LaJolla, CA have won the NMFS 2007 Fishery Bulletin Best Paper Award for their article: Anderson, Tara J., and Mary M. Yoklavich. 2007. Multiscale habitat associations of deepwater demersal fishes off central California. Fishery Bulletin 105:168-179.(Download the paper: http://swfsc.noaa.gov/publications/FED/00762.pdf)

This paper describes the response of fishes to demersal habitats at spatial scales ranging from centimeters (individual fish habitat) to kilometers (broad-scale assemblage habitats). This approach to resolving fish-habitat associations and habitat complexity over multiple scales is currently being applied to several management processes, including the designation of Essential Fish Habitats for west coast groundfish; groundtruthing coastwide seafloor habitat maps; the use of habitat characteristics as surrogates for fish species distributions in ecosystem-based management; and the implementation of California's Marine Life Protection Act.

The quarterly *Fishery Bulletin* has been an official publication of the U.S. Government since 1881, and is the U.S. counterpart to other highly regarded governmental fisheries science publications. It publishes original research or interpretative articles in all scientific fields related to marine fisheries. Manuscripts submitted for publication in the *Fishery Bulletin* undergo peer review by senior scientists within and outside the government. Each year one paper is selected to receive the "Best Paper Award" in the *Fishery Bulletin*, in recognition of an exceptional contribution to fisheries science.

NOAA Press Release

Send Nominations: Outstanding Achievement Awards Deadline June 1, 2008

The Outstanding Achievement Awards are the highest recognition given by AIFRB to individuals and to research groups. We are again soliciting your nominations for these two Awards. This is your opportunity to provide nominations and help AIFRB recognize the individuals and organizations that have made outstanding contributions to our science.

Individual Achievement Award is given to an individual who has made significant contributions to the advancement of fishery science. This is the highest AIFRB award for achievement. Candidates are rated on the following criteria: significance of publications, exceptional service to the profession, outstanding teaching or training of students, important discoveries or inventions, and significant contributions to the advancement of fishery science.

Group 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 will be rated on the following criteria: sustained contribution of significant publications, exceptional service to the fishery profession, outstanding teaching or training programs, important discoveries or inventions, and significant contributions to the advancement of fishery science.

To nominate an individual or research group: Submit a letter fully describing how the nominee meets the criteria for the award. Include the name, address, telephone number and email address of the nominee and a short resume of the nominee. Please include your name, address, telephone number and email address so the Committee can contact you for further information if needed.

Nominations due: June 1, 2008. Submit nominations to: Dr. William Fox, World Wildlife Fund US, PO Box 60633, San Diego, CA 92166. If you have any questions, please contact: Bill Fox at Bill.Fox@WWFUS.org, Jack Helle at Jack.Helle@noaa.gov, Bill Taylor at Taylorw@msu.edu.

Previous Awards for Individual Outstanding Achievement Award

Recipients 1979 - 2008: Elbert H. Ahlstrom, James E. Sykes, F. Heward Bell, Richard H. Stroud, Kenneth D. Carlander, David W. Schindler, Peter Larkin, William G. Gordon, William F. Royce, Reuben Lasker, Robert L. Burgner, William W. Fox, Arthur D. Hasler, William E. Ricker, Raymond J.H. Beverton, Reeve M. Bailey, William G. Pearcy, John H.S. Blaxter, Saul B. Saila, John R. Hunter, Kenneth E. Wolf, Fred Utter, Howard Bern, Brian Rothschild, John Fryer, Geoffrey Moser, Peter Moyle, John Magnuson

Group Outstanding Achievement Award

Recipients 1982-2003: Canadian Journal of Fisheries and Aquatic Sciences; Great Lakes Sea Lamprey Control Program; Harvesting Technology Division, NMFS, Pascagoula, MS; Sport Fishing Institute; International Pacific Halibut Commission; Southwest Fisheries Center, NMFS, La Jolla, CA; Cooperative Fish & Wildlife Research Units Center & Related Coop Units; International North Pacific Fisheries Commission; The Illinois Natural History Survey; National Fish Health Research Laboratory, USGS, Kearneyville, WV; International Pacific Halibut Commission; The Great Lakes Fishery Commission; Northwest Fisheries Science Center, Ecotoxicology Research Team

Even if your nomination cannot meet the June 1 deadline, I am sure the committee would welcome it for future consideration. Ed.

Scholarships Planned: Money Needed

The Northwest Washington District of AIFRB plans a pledge drive to establish an AIFRB Scholarship in Fishery Research Biology for a graduate student at the School of Aquatic and Fishery Sciences, University of Washington. They believe it is especially appropriate to establish a scholarship in AIFRB's name at the School, as this is where our organization began in the 1950s. A minimum of \$5,000 is needed to establish a scholarship, but should be easily attainable. Contributions from AIFRB members from outside the NW Washington District would be welcome.

Kate Myers, University of Washington, School of Aquatic and Fishery Sciences, Box 355020, Seattle, WA 98195-5020. Phone: (206) 543-1101, Fax: (206) 685-7471, Email: kwmyers@u.washington.edu.

A Loss:

Bernard D. Fink, Fellow, March 9, 2008

Bernard D. Fink, an AIFRB member since 1966 and an AIFRB fellow since 1994, died of a heart attack on April 9, 2008. Bernie was born in Brooklyn, New York, on April 30, 1933. He earned his bachelor's degree at Brooklyn College and his master's degree at Stanford University. He became an employee of the Inter-American Tropical Tuna Commission in February 1960, where he was in charge of its tuna tagging program until June 1968. Large numbers of fish were tagged during that period, and many tag returns were received. He was very good at organizing the tagging cruises and at supervising the addition of the tag release and return data to the tagging data base. He was the author or co-author of seven papers based on his work at the Tuna Commission. Bernie was hired by the Food and Agriculture Organization of the United Nations in June 1968, and worked in Tema, Ghana, with a group that was attempting to develop a tuna fishery in the Gulf of Guinea. He returned to the United States in June 1970, and was subsequently employed by Inter-Oceanic Factors in Long Beach, California, and Living Marine Resources in San Diego. He spent the last 20 years of his professional career with Van Camp Seafood Company in San Diego. Bernie retired in 1993, but remained active as a substitute teacher for the San Diego Unified School District, a docent at the Stephen Birch Aquarium, a volunteer for the California Department of Fish Game, and a tax preparer for the American Association of Retired Persons. He was also a member of the San Diego Fly Fishing Club, and enjoyed giving fly-casting lessons at Lake Murray on Sunday mornings.

Bernie was a man of many talents. He began fly fishing in Sheepshead Bay, New York, at the age of 6, and maintained his interest in both salt water and freshwater recreational fishing throughout his life. He was also an enthusiastic hunter, for deer, ducks, pheasants, and quail. He also enjoyed wood-working, and made many fine pieces of furniture for his family.

Bernie is survived by his wife of 45 years, Joanne, their daughter Laurie, son-in-law David, two granddaughters, Annie and Caroline, and his son Jon. He will be greatly missed by his relatives and his many friends.

Submitted by: Bill Bayliff

AIFRB 2008 Symposium at Ottawa Vaughan, Conn and Hoenig Strike

Symposium title: Tagging and its use in stock assessments A 1.5 day symposium sponsored by AIFRB at the 2008 AFS Meeting, Ottawa Ontario

Organizers: Dr. Douglas S. Vaughan, NOAA Center for Coastal Fisheries and Habitat Research, Beaufort, NC; Dr. Paul B. Conn, NOAA Center for Coastal Fisheries and Habitat Research, Beaufort, NC; Dr. John M. Hoenig, Virginia Institute of Marine Science, College of William & Mary, Gloucester Point, VA

Description: Tagging studies are a major tool for assessing fisheries and studying population dynamics. Such studies often provide information about parameters that are otherwise difficult to estimate such as natural mortality and selectivity, and also allow researchers to model how catchability varies over time and space. These capabilities make tagging studies an ideal complement to traditional assessment approaches in that key assumptions may be relaxed to allow for more realistic models of stock dynamics. In recent years, there has been increased attention to statistical design of tagging studies, and to development of new statistical models for encounters of marked individuals. In addition, a number of studies have investigated the robustness of tag recovery and mark-recapture models to assumption violations, and have looked at how best to integrate tagging data with other types of fishery dependent and independent data. In this symposium, we attempt to synthesize this research through a variety of presentations that combine methodological descriptions with case studies. In particular, we shall emphasize recent advances that allow researchers to incorporate tagging information into the stock assessment process.

List of Presentations (all oral):

- 1. Paul Conn: Using tagging data to inform stock assessments.
- 2. Kenneth H. Pollock & Jun Yoshizaki*: The use of natural tags in capture-recapture models: modelling misidentification.
- 3. Zhi Wen*, Kenneth H. Pollock & Cynthia Jones: Population level tags and individual level tags to estimate survival and movement probabilities in multi-site capture-recapture models.
- 4. Matthew Smith*, Stewart D. Frusher, and John M. Hoenig: A method for estimating initial tag loss and tag induced mortality of southern rock lobster.
- 5. Lynn Waterhouse*, Matthew Smith*, Steve Newman, Kristene Parsons, Kathy Lockhart & John Hoenig: An improved tagging model for estimating survival rates when tag fouling affects detectability: possible application to queen conch stock assessment.
- 6. Richard McGarvey: Estimating rates of mortality and movement using single tag-recovery data unbiased by tag non-reporting and short-term tag losses.
- 7. Travis Brenden: Sensitivity of tag-recovery mortality estimates to tag shedding, handling mortality, and reporting rate inaccuracies.
- 8. Anthony Wood: Survival of yellowtail flounder (*Limanda ferruginea*) in the northwestAtlantic derived from tag-recapture data.
- 9. Gary R. Shepherd & Joshua Moser: Estimates of fishing and natural mortality of black sea bass in the Mid-Atlantic based on a release-recapture experiment.
 - 10. Talia Bigelow*: Estimates of abundance from mark-recapture analysis of v-notched American lobster.
 - 11. Jessica Melgey*: Estimation of yellowtail flounder abundance using a Peterson mark-recapture experiment.
- 12. Will Smith*: Fishery management and tag-return estimates of fishing mortality: An example in the NC southern flounder fishery.
 - 13. Matthew Krachey* & Kenneth H. Pollock: Hierarchical Bayesian approach to age-structured tagging models.
- 14. Desmond Kahn: Tag-recapture data and spawning stock survey data indicate potential for a recreational fishery for mature male striped bass in the Delaware River and Bay.
- 15. Gary Nelson: A forward-projecting age-structured statistical catch-at-age model incorporating harvest and catch/release tag returns for striped bass.
- 16. M. S. M. Siddeek, L. J. Watson, D. R. Barnard, and R. K. Gish: An integrated model using catch and tagging data to estimate mortality and abundance for the Aleutian Islands golden king crab (*Lithodes aequispinus*) stock.
- 17. Nathan Bacheler* Jeff Buckel, Joe Hightower, Lee Paramore, Ken Pollock, Helen Takade: Using a combined telemetry tag return method to aid the assessment of red drum in North Carolina.
- 18. Mark Willette: Mark-recapture abundance estimates for 4 species of Pacific salmon returning to Upper Cook Inlet, Alaska using passive integrated transponder tags and radio telemetry.
- 19. Richard Yanusz, Mark Willette & Ted Spencer: Contributions of radio tagging to the assessment of Susitna River sockeye salmon productivity.

- 20. Tim McKinley: The use of radio telemetry and coded wire tags in estimating stock parameters of wild coho and Chinook salmon populations on the Kenai Peninsula.
- 21. Frederick Goetz, Barry Berejikian, Scott Steltzner, Ed Connor, Correigh Greene, & Eric Jeanes: Use of a multi-scaled biotelemetry network to track marine and anadromous fishes in Puget Sound.
 - 22. Ray Webster: Conflicting results from a large multi-stratum PIT tag study and the Pacific halibut stock assessment.
- 23. Timothy Miller: A finite-state continuous-time approach to estimating abundance and instantaneous migration and mortality rates for mixing stocks from tagging and catch data.
 - 24. Jon Loehrke* & Dave Martins*: Consideration of spatial patterns in modeling and managing spawning groups of cod.
 - 25. Terry Quinn: Improvement of a spatial age-structured model with mark-recapture data.
 - 26. Daniel Goethel*: A spatially explicit model of yellowtail flounder.
- 27. Larry Alade*: A simulation-based approach for assessing the performance of a yellowtail flounder (*Limanda ferruginea*) movement-mortality model.
 - * Denotes student

Reminder: Board Meeting and Reception Members Welcomed!

Ottawa, Ontario August 2008

Members are encouraged to attend and participate in the Board of Control Meeting, August 16-17th, 2008, during the American Fisheries Society annual meeting, Ottawa, Ontario. Further, AIFRB will sponsor a reception for potential members and members. The Board of Control Meeting will be held on Saturday August 16th and Sunday August 17th, from 9:00 am - 5:00 pm, in the L, Orangerie room of the Chateau Laurier Hotel, 1 Rideau Street, Ottawa Canada. Our Annual Reception will be held on Sunday August 17th in the Burgundy room of the Chateau Laurier Hotel from 5:30 - 7:00 pm. All are welcome. Plan to be there!

Joseph Rachlin, Director, Keystone District

Clark Hubbs Memorial Considered

President Jones has established a committee to choose an appropriate memorial for recently deceased past president Clark Hubbs. Members are Dora Passino-Reader, Frank Panek, Peter Haaker, Joe Margraf and Morris Southward. Members' ideas would be appreciated.

Board of Control Mid Year Teleconference - April 23, 2008

Draft Agenda: Arrangements for August Board Meeting (Joe Rachlin and Barbara Warkentine), AIFRB-AFS symposium (Doug Vaughan), Treasurer's Update (Allen Shimada), Regional/District reports and recruitment of new members (Directors), Progress on the web site (Linda Jones and Allen Shimada), Progress on electronic journal (Kevin Friedland), Status of 2008 Awards (Committee Chairs), Next AIFRB symposium (Dick Beamish), Recruitment of new Secretary (discussion), Other items.

District News Needed

Remember, if your district is sponsoring a meeting, meal, presentation, witch burning, orgy, or dog fight, it should be reported in *Briefs*. Send news!! *Editor*

Mid Year Budget Status

Dues Collected \$13,881 (vs \$16,221 in FY 07) Checking Balance \$9,704 (4/18/08)

- + 2,500 (Awards to be transferred from Smith Barney)
- 4,400 (4 Briefs)
- 2,500 (5 Student RAs, including 1 Mike Fredin Award)
- 4,000 (10 BOC Travel)
- = \$1,304 for Reception and 0 EOY Balance

PayPal Account \$700 (Credit)
50th Symposium Checking \$30,504
American Express Card \$539 (Credit)
Submitted by: Allen Shimada

Fetterolf Eschews Alces Eliminata

Dear AIFRB Briefs Readers,

While scanning the N/D '07 issue of *Briefs*, I noticed the headline "Huntsman Receives Distinguished Service Award." Curious as to what the Feesh Doctor could have done in a distinguished manner, I read on. I was shocked to find my culinary capabilities and (by reference) those of my campmates associated with Moose-Dropping Pie*.

In repudiating this repugnant inference, be advised there are no moose near the Fetterolf family cabin (The Remedy, it works every time) where the menfolk seek turkeys, steelhead, trout and morels. Amazingly, the invitees often request individual or team responsibility for a breakfast, hors d'oeuvre or dinner.

Sincerely, Carlos Fetterolf

*Beaver, deer or rabbit droppings may be substituted.

Tuna I: Status of the World's Tuna Stocks

By William H. Bayliff

A letter to Nature (Myers and Worm, 2003) stating that predatory fishes, including tunas in the open ocean, had been reduced by 80 to 90 percent by fishing attracted widespread attention in newspapers and general-interest magazines. Many rebuttals to that letter (e.g. Hampton et al., 2005; Maunder et al., 2006; Polacheck, 2006; Sibert et al., 2006) later appeared in scholarly journals, but these were largely ignored by the public. The rebuttals, among other things, pointed out that Myers and Worm were basing their contention that the abundance of the tunas had declined by 80 to 90 percent on catch-per-unit-of-effort (CPUE) data and that the CPUEs had declined precipitously during the first few years of the fisheries, when the catches were low, and then leveled off during the subsequent years when the catches were greatly increasing. It was further pointed out that it would be impossible for the catches to increase during extended periods during which the CPUEs remained stable unless the CPUEs are not proportional to the abundance of the fish. There have recently been several articles in magazines and newspapers, including the National Geographic (Montaigne, 2007) and Scientific American (Ellis, 2008), that discuss the condition of the tuna stocks of the world. Unfortunately, these articles were written by non-scientists, who present mixtures of truths, half-truths, and outright mistakes and conclude that many or most species of tunas are severely overfished, or even in danger of "extinction."

Research on tunas is carried out by highly-qualified scientists, some of whom are employed by international organizations such as the Inter-American Tropical Tuna Commission and the Secretariat of the Pacific Community, and others who work for various countries, universities, etc., but whose work is coordinated by other international organizations such as the Commission for the Conservation of Southern Bluefin Tuna, the Indian Ocean Tuna Commission, the International Commission for the Conservation of Atlantic Tunas, and the Western and Central Pacific Fisheries Commission. There is a wealth of information on the status of the various tuna stocks written by these fishery scientists and published by these organizations or in journals such as Science, the ICES Journal of Marine Science, the Canadian Journal of Fishery and Aquatic Science, and the Fishery Bulletin of the U.S. National Marine Fisheries Service. Unfortunately, as stated above, the authors of the articles in general-interest magazines and newspapers ignore the information that is available to them. Fortunately, however, Dr. Jacek Majkowski, a highly-respected fishery scientist, has prepared a paper (Majkowski, 2007) that provides reliable information on tunas. The text table that appears on page 26 of that paper is reproduced on the next page of this article. (That paper was written several years ago, so the assessments are not quite up to date, but in most cases they are indicative of the current situation.)

Scientists have warned managers about overfishing, when that has occurred, but the various stocks are fished by vessels of many different nations with several different types of gear, so it is difficult to get agreement to curtail fishing. The problem is exacerbated by the fact that, for some stocks at least, most of the fishing takes place on the high seas, where regulations have not been in place for any species of fish until very recently. Even when agreement is reached, illegal fishing, especially for the more valuable species, sometimes takes place.

Bluefin are long-lived species, so recovery of the stocks would take a long time, even if the fisheries for these stocks were further curtailed and illegal fishing did not take place. Bigeye have become overfished in the Pacific Ocean only recently. For many years, bigeye were caught mostly by longlines, which take only small amounts of juvenile tunas. Purse-seine fishermen have been deploying drifting and anchored fish-aggregating devices (FADs) in the world's oceans since the mid-1990s in order to increase their catches of skipjack. They also catch juvenile bigeye along with the skipjack, and the result has been overfishing of bigeye. Fisheries scientists have been working with fishermen to seek ways to reduce the bycatches of juvenile bigeye without adversely affecting the fishery for skipjack.

It is obvious that more stringent regulations are needed for some stocks of tunas, and biologists, political scientists, and economists have been struggling to find ways to accomplish this. It is impossible to predict when and how these problems will be fully solved, but one thing is certain: if rational solutions are to be achieved, they must be based on reason, rather than on emotions or greed.

References: Ellis, R. 2008. Bluefin peril. Scientific American, 298 (3): 71-77; Hampton, J., J. R. Sibert, P. Kleiber, M. N. Maunder, and S. J. Harley. 2005. Decline of Pacific tuna populations exaggerated? Nature, 434 (7037): E1-E2; Majkowski, J. 2007. Global fishery resources of tuna and tuna-like species. FAO Fish. Tech. Paper, 483: 54 pp.; Maunder, M. N., J. R. Sibert, A. Fonteneau, J. Hampton, P. Kleiber, and S. J. Harley. 2006. Interpreting catch per unit effort data to assess the status of individual stocks and communities. ICES Jour. Mar. Sci., 63 (8): 1373-1385; Montaigne, F. 2007. Still waters. National Geographic, 211 (4): 42-69; Myers, R. S., and B. Worm. 2003. Rapid worldwide depletion of predatory fish communities. Nature, 423 (6937): 280-283; Polacheck, T. 2006. Tuna longline catch rates in the Indian Ocean: did industrial fishing result in a 90% rapid decline in the abundance of large predatory species? Marine Policy, 30 (5): 470-482; Sibert, J., J. Hampton, P. Kleiber, and M. Maunder. 2006. Biomass, size, and trophic status of top predators in the Pacific Ocean. Science, 314 (5806): 1773-1776.

William H. Bayliff

Catches (in thousands of metric tons) and status of the stocks of the principal market species of tunas. N = unknown or significantly uncertain; M = moderately exploited; F = fully exploited; O = overexploited; D = depleted.

| Species | Stock | Catch | | | | | Status |
|------------------|--------------------------------------|-------|-------|-------|-------|-------|--------|
| | | 2000 | 2001 | 2002 | 2003 | 2004 | |
| Albacore | Mediterranean Sea | 6 | 5 | 6 | 8 | 5 | N |
| | North Atlantic | 34 | 25 | 23 | 26 | 25 | O |
| | South Atlantic | 29 | 35 | 32 | 28 | 23 | M |
| | Indian Ocean | 38 | 41 | 33 | 25 | 23 | F |
| | North Pacific | 84 | 98 | 109 | 100 | 92 | F |
| | South Pacific | 40 | 53 | 63 | 62 | 56 | M |
| | Total | 231 | 257 | 266 | 249 | 224 | |
| Atlantic bluefin | Eastern Atlantic & Mediterranean Sea | 34 | 35 | 35 | 32 | 32 | O |
| | Western Atlantic | 3 | 3 | 3 | 2 | 2 | D |
| | Total | 37 | 38 | 38 | 34 | 34 | |
| Pacific bluefin | Pacific Ocean | 29 | 17 | 17 | 16 | 22 | F |
| Southern bluefin | Southern Ocean | 15 | 16 | 15 | 14 | 13 | D |
| Bigeye | Atlantic Ocean | 103 | 96 | 76 | 83 | 76 | F |
| | Indian Ocean | 128 | 115 | 135 | 124 | 126 | F |
| | Eastern Pacific | 142 | 130 | 132 | 114 | 108 | O |
| | Western and Central Pacific | 120 | 117 | 134 | 122 | 129 | O |
| | Total | 493 | 458 | 477 | 443 | 439 | |
| Yellowfin | Atlantic Ocean | 134 | 160 | 139 | 125 | 120 | F |
| | Indian Ocean | 330 | 310 | 332 | 437 | 494 | F |
| | Eastern Pacific | 282 | 416 | 439 | 406 | 288 | F |
| | Western and Central Pacific | 433 | 427 | 419 | 447 | 413 | F-O |
| | Total | 1,179 | 1,313 | 1,329 | 1,415 | 1,315 | |
| Skipack | Eastern Atlantic | 111 | 118 | 93 | 124 | 133 | N |
| | Western Atlantic | 29 | 31 | 22 | 24 | 27 | N |
| | Indian Ocean | 422 | 426 | 489 | 474 | 457 | M-F |
| | Eastern Pacific | 282 | 416 | 439 | 406 | 288 | M |
| | Western and Central Pacific | 1,237 | 1,136 | 1,284 | 1,295 | 1,370 | M |
| | Total | 2,081 | 2,127 | 2,327 | 2,323 | 2,275 | |
| Total | | 4,065 | 4,226 | 4,469 | 4,494 | 4,322 | |

Many, many thanks to Bill for taking the time to generate this precis. I encourage other AIFRB members to voice thoughts, opinions and analyses in the pages of Briefs. Ed.

Tuna II: 20th ICCAT Meeting

International Commission For The Conservation Of Atlantic Tunas

The 20th Regular Meeting of the International Commission for the Conservation of Atlantic Tunas (ICCAT) was held in Antalya, Turkey on November 9-18, 2007. ICCAT is one of several Regional Fishery Management Organizations (RFMOs) that are in place to monitor and Manage different species found in the world's oceans. ICCAT, comprised of 45 contracting nations, was established in 1969 to manage tuna and tuna-like species, including blue and white marlin and swordfish, in the Atlantic Ocean.

Although initially not slated to be a major topic on the agenda, once again, the management of Eastern Atlantic and Mediterranean bluefin tuna stocks quickly dominated the meeting. This fishery is extremely valuable and is in high demand in markets around the world, particularly in Japan, causing a severe decline in stocks since the mid-1990's. At the previous year's meeting held in Dubrovnik, Croatia, ICCAT adopted a Multi-Annual Recovery Plan for Bluefin Tuna in the Eastern Atlantic and Mediterranean. This recovery plan was developed to put "new and significant monitoring, control and reporting requirements" in place and asked all contracting countries to manage capacity and submit data.

Plans implemented by ICCAT are intended to be based on the scientific recommendations reported by the Commission's scientific body, The Standing Committee on Research and statistics (SCRS). However, the "recovery plan" adopted in 2006 set the total allowable catch for Eastern Atlantic and Mediterranean bluefin tuna at nearly double what the SCRS recommended, 29,500 metric tons instead of 15,000 metric tons. The SCRS stated that unless this plan was perfectly implemented, the stock would continue to decline. To date, implementation has unfortunately been far from perfect. Data reporting requirements from the 2007 fishing season were not met and certain countries exceeded their quota. Additionally, investigations are underway of fraud and other activities, indicative of poor management and non-compliance.

Complicating the issue even further is that tagging data clearly shows mixing between Eastern Atlantic and Mediterranean bluefin tuna and Western Atlantic bluefin tuna stocks. It is becoming increasingly evident that this mixing and subsequent heavy fishing in the Eastern Atlantic is having a negative impact on the Western stock that is already at a dangerously low level.

In a desperate attempt to address the decline in stocks, the United States proposed a "cessation of fishing" in the eastern Atlantic and Mediterranean in order to provide sufficient time to implement the monitoring and control measures outlined in the 'recovery plan". The Turkish and Japanese delegations also submitted proposals to address the continued rapid decline of Eastern Atlantic and Mediterranean bluefin tuna, each of which fell woefully short of what was being recommended by the SCRS. These proposals did, however, address some of the problems proposing reductions in quota, restrictions on the lucrative farming and fattening operations and increasing stakeholder involvement.

In the end, the U.S. proposal was viewed by most as too extreme and a revised proposal from Japan was accepted which will provide little relief for the stocks. It is likely there will be a repeat of the same program at next year's ICCAT meeting. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has been scrutinizing the insufficient efforts made by ICCAT with respect to management and conservation of bluefin tuna over the last several years. It is being widely considered by member parties, non-member parties and observers that bluefin tuna could be considered for listing at the next CITES meeting in 2010.

From: International Angler 70 (1) Jan-Feb 2008

Tuna III: Europeans boycott Mediterranean bluefin tuna

Jen Schoemburg

In late January 2008, the World Wildlife Fund (WWF) appealed to retailers worldwide to join several large European supermarket chains in a boycott of Mediterranean bluefin tuna, a fish highly prized for its rosy flesh and a favorite in the sushi market. But the world's insatiable appetite for bluefin tuna has resulted in overfishing that has the species on the verge of collapse, scientists warn. The Mediterranean fishery, the largest of the Atlantic bluefin fisheries, is in particular trouble. High-tech fishing methods used in recent years, and a growing worldwide market, have resulted in a vast increase in the number of tuna caught.

In November 2007, WWF sharply criticized the International Commission for the Conservation of Atlantic Tunas (ICCAT) for refusing to implement a temporary fishing ban to allow the bluefin population to recover, stating in a press release that "this

is a formal acceptance by ICCAT of the market-driven, rather than science-driven, nature of management in this fishery.

Gemma Parkes, Communications Officer for WWF Mediterranean (Rome, Italy), says that "WWF's requests for more sustainable management of the fishery have fallen on deaf ears. This market pressure is sending a strong message to decision makers that the imperiled species cannot survive much more overfishing and needs our help urgently."

Ocean expert Richard Ellis examines the issue in his upcoming book, Tuna: a love story. "I want to convey the spectacular nature of the bluefin, one of the fastest, largest, most highly evolved of all fishes, and to show that it is a crime of worldwide proportions to hunt this creature down and threaten its very existence to satisfy a food fad", he says. "Unless we can get people to care about the bluefin tuna, we will lose one of the world's most spectacular animals. and for no other reason than that certain people like to eat it raw, with a little soy sauce and wasabi."

In an interesting development, the Australian company Clean Seas Tuna announced in March that it had successfully bred bluefin tuna larvae in captivity, a breakthrough that could eventually relieve fishing pressure on the struggling wild population.

From: Frontiers in ecology and the environment 6 (3) April 2008

An Interesting New Title: The Most Important Fish in the Sea

Menhaden and America H. Bruce Franklin

H. Bruce Franklin shows how menhaden have shaped America's national - and natural - history, and why reckless over-fishing now threatens their place in both.

2007, 6 x 9. 280 pages. Photos, notes, index. Cloth: \$25.00 978-1-59726-124-1

Island Press, Center for Resource Economics, 1718 Connecticut Ave. N.W. Suite 300, Washington, DC, 200009-1148. Phone (202) 232-7933, Fax (202) 234-1328

America's Most Endangered RiversTM: 2008 Edition

- #1. Catawba-Wateree River, North Carolina. Threat: Outdated water supply management.
- #2. Rogue River, Oregon. Threat: Logging and road construction.
- #3. Cache la Poudre River, Colorado. Threat: Water diversion and reservoir project.
- #4. St. Lawrence River, New York. Threat: Outdated dam management plan.
- #5. Minnesota River, Minnesota. Threat: Proposed coal-fired power plant.
- #6. St. Johns River, Florida. Threat: Unsustainable water appropriations.
- #7. Gila River, New Mexico. Threat: Water development project.
- #8. Allagash Wilderness Waterway, Maine. Threat: Loss of wild and scenic river protections.
- #9. Pearl River, Louisianna and Mississippi. Threat: Irresponsible flooplain development.
- #10. Niobrara River, Nebraska. Threat: Unsustainable irrigation diversions.

From: American Rivers

More Outdated Dams Coming Down in the Pacific Northwest

The removal of Marmot Dam on the Sandy River, Oregon in July 2007 marks a new era of river restoration in the Pacific Northwest. Over the next five years, six more dams will be removed, restoring some of the region's best-loved rivers.

Removing these outdated dams to restore free-flowing, healthy rivers will bring benefits to communities and will give an important boost to regional salmon recovery efforts.

The Timeline:

2008: Little Sandy Dam, Sandy River (Oregon), Savage Rapids Dam, Rogue River (Oregon), Condit Dam, White Salmon River (Washington)

2010: Powerdale Dam, Hood River (Oregon)

2011: Deconstruction begins on the Elwha and Glines Canyon Dams, Elwha River (Washington)

From: Upstream-Winter 2008

Fish Out of Water

Imperiled Fish Species Find New Home on Historic Ranch

By Jennifer Winger

In the desert Southwest, where streams are scarce and many riparian corridors have been denuded by centuries of overgrazing by cattle, four fish species in the Gila River basin have been fighting an upstream battle for survival. But now the imperiled spikedace minnow, loach minnow, gila topminnow and desert pupfish are getting second homes and a second chance, thanks to The Nature Conservancy and partners. Although past efforts to reintroduce fish have been troubled by the presence of exotic competitors, drought and the impact of human activities on water quality, biologists believe these species may have more success in perennial water sources on protected land.

"It's hard to believe, but there are not many places to put fish anymore," says Tony Robinson, program manager for the Arizona Game and Fish Department. "But we've identified some great aquatic habitat that's going to give these fish a shot." Eight hundred spikedace and loach minnows and 2,000 Gila topminnows and desert pupfish have been relocated to Muleshoe Ranch — a 50,000-acre patchwork of public and private land jointly managed by the Conservancy, the Forest Service and the Bureau of Land Management. Today, the ranch boasts seven permanently flowing streams, but it was not always such an aquatic oasis. In the mid-1800s, Henry Hooker, known as the "cattle king of Arizona," homesteaded a tract of land between the Galiuro Mountains and the San Pedro River. The property's lush shade trees and abundant pools earned it the moniker "Hooker's Hot Springs," but when the Conservancy acquired the semidesert grassland nearly a hundred years later, overgrazing and lack of fire had left it in extremely poor condition.

"When we got ahold of Muleshoe, we gave it a rest," says Ken Wiley, stewardship director for the Conservancy in Arizona. "We got the cattle out, put fire back in, and the riparian areas just exploded — we've restored much of the property's ecological value."

With grazing pressure gone, fire could revive Muleshoe's arid landscape. Prescribed burns cleared out invasive shrubs and mesquites and made room for once-rare perennial grasses. Healthy grasslands store rain as groundwater, releasing it slowly. This "sponge effect" means rivers can flow even in the driest months — a boon for fish. Muleshoe's aquatic habitat is some of the best in the West, but to get there these fish had to fly — in 55-gallon drums dangling from the belly of a helicopter. Field biologists met the drums at the edge of wilderness areas, transferred the living cargo to 10-gallon buckets and hiked them into remote locations for release. Scientists will track the fate of the fish for the next five years. But for now, these four federally listed species are once again running wet and wild.

From: Nature Conservancy, Spring 2008

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BRIEFS, the newsletter of the American Institute of Fishery Research Biologists, is published six times a year. It is intended to communicate the professional activities and accomplishments of the Institute, its District, and Members; the results of research; the effects of management; unusual biological events; matters affecting the profession; political problems; and other matters of importance to the fishery community. Comments and contributions should be sent to the Editor, Dr. Gene R. Huntsman, 205 Blades Road, Havelock NC28532, feesh of @embargmail.com Subscription \$30 ayear to Institutions and Non-Members. Officers-Linda L. Jones, 14931 73rd Ave., Kenmore, WA 98028, linda, jones @verizon.net -President: Barbara Warkentine, SUNY-Martitime College, Science Dept., 6 Pennyfyeld Ave., Fort Schuyler, Bronx, NY 10465-4198, synodus @aol.com-Secretary; Allen Shimada, NMFS, Office of Science and Technology, 1315 East West Highway, Silver Spring, MD 20910, allen.shimada@noaa.gov -Treasurer. ISSN-8755-0075

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Promoting excellence in fishery science

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VOL. 37, NO. 3 MAY, JUNE 2008

President's Message

The annual meeting of the AIFRB Executive Board will be August 16-17, 2008 in Ottawa, Canada. The meetings will be held in the L'Orangerie Room of the Chateau Laurier. Dick Beamish will become the new President of AIFRB. I hope many of you can be there to celebrate the start of his term at our reception on Sunday, August 17, at 5:30 pm in the Quebec Suite in the Chateau Laurier. We are very excited to have Dick as our President. He will bring great vision and energy to AIFRB and we all wish him well as President.

If you are interested in serving as on the Executive Board, or on one of the Committees, contact your Regional Director or Dick Beamish. We would love to have your ideas and enthusiasm involved in more activities.

I would like to thank all of you for your support during my term as President. We have started several new programs: the Kasahara Early Career Award; the International Symposium Series, with the Proceedings of the first symposium being published this summer; an electronic journal, the Journal of the American Institute of Fishery Research Biologists, is about to be launched; and a program to mentor early career members by providing reviews of manuscripts has been initiated. It has been enormously rewarding to serve as your President. AIFRB is a great organization and I know it will grow and prosper under Dick's leadership.

Linda Jones

(And many thanks to Linda for dedicated service. Ed)

EPA Gold Medal to Robert Lackey

The U.S. Environmental Protection Agency has presented their highest award to Oregon State University professor Dr. Robert T. Lackey, a senior fisheries biologist at EPA's research laboratory in Corvallis. The EPA Gold Medal was presented to

Dr. Lackey at a ceremony in Washington D.C., where he was cited for his scientific contribution in organizing the Salmon 2100 Project. "With limited funding but with remarkable persuasive powers, Dr. Lackey secured the ongoing personal involvement of senior scientists and policy experts from a variety of agencies and organizations," said Dr. Thomas D. Fontaine, Director of EPA's Western Ecology Division in Corvallis. "Through his personal commitment and scientific expertise, he provided pivotal leadership in the salmon science arena."

The ground-breaking project brought together 33 senior scientists and salmon policy experts from British Columbia, Washington, Idaho, Oregon, and California. Under the direction of Dr. Lackey and OSU colleagues Dr. Sally Duncan and Dr. Denise Lach, this group of experts conducted a comprehensive alternative futures analysis for salmon recovery in western North America.

"Dr. Lackey's efforts to identify credible policy options for sustaining wild salmon populations in the Pacific Northwest will serve as a model for developing candid, scientifically credible analyses of ecological sustainability options nationwide," said Fontaine. Dr. Lackey was able to provide a comprehensive scientific analysis that has been invaluable not only to EPA, but to other Federal and state agencies, tribes, local governments, and others concerned with ecological sustainability. The recovery options offered by the project have also been of interest to environmental agencies of other nations.

In presenting the Gold Medal, EPA Administrator Steven L. Johnson commented that the award was "in recognition of exemplary scientific vision and personal leadership in assessing the future of salmon in western North America".



EPA Photo: Dr. Robert Lackey with EPA Gold Medal for Exceptional Service

The Gold Medal for Exceptional Service is EPA's highest award. It is given on a highly selective basis for distinguished service of major significance to environmental improvement and to public service. Recipients must demonstrate outstanding abilities devising and implementing major Agency programs, or show special skills and achievements in managerial excellence.

The book, "Salmon 2100: the Future of Wild Pacific Salmon" is available through American Fisheries Society.

Dr. Lackey is courtesy professor of fisheries science, and adjunct professor of political science, at Oregon State University. He was a 1999-2000 Fulbright Scholar at the University of Northern British Columbia when the project was conceived and planned.

For Further Information, contact Dr. Lackey at (541) 754-4607.

AIFRB Executive Board Meeting

16-17 AUGUST 2008 Ottawa, Canada L'Orangerie Room, at the Chateau Laurier DRAFT AGENDA (Abridged)

Saturday, 16 August 2008 (0830-1700 hrs)

- President's Report (Jones)
- Secretary's Report (Warkentine)
- Treasurer's Report (Shimada): a. State of the Treasury; b. Delinquent members; c. Advice from Capital Management Committee (Wespestad); d. Founders Fund: e. Outlook for 2008-2009; f. Adoption of Authorization for Treasurer (Fiscal 08-09)
- Membership Committee (Keegan): a. Results for 2008; b. Brochure; c. Recommendations and plans for 2009
- W.F. Thompson Award Committee (Bayliff): a. Award recipient and plans for presenting the award
- Research Assistance Award Committee (Ault)
- Outstanding Achievement Award Committee (Fox): a. Nominations (individual) for 2009; b. Nominations (group) for 2009
- Distinguished Service Award (Jones): a. 2007 award presentation to Tom Keegan; b. Committee (Jones, Schaefer, and Sakagawa) to consider 2008 award
- Kasahara Award (Cadrin)
- Briefs (Huntsman)
- Productions (Merriner)
- Website (Jones)
- Ad hoc committee reports
- District Reports on District Activities (Directors)

Sunday, 17 August 2008

- Old Business: a. Celebration 2006 proceedings publication (Beamish); b. E-Journal (Friedland); c. Peer review of manuscripts (Halle)
- New Business: a. Discussion of recruitment and retention of members; involvement of more members; b. Review of
 reimbursement at annual Board meetings (Jones); c. Installation of new President; d. Committee assignments (Beamish);
 e. Next meeting plans
- Appointments (Beamish): a. Regional Directors; b. Officers and/or Interim Directors; c. Standing Committee Chairs; d.
 Special Committee Chairs
- Adjournment

1730-1900 AIFRB Reception, Quebec Suite, on the first floor of the Chateau Laurier.

AIFRB Awards to be presented or announced:

- Outstanding Achievement Award to Dr. John Magnuson
- W.F. Thompson Award
- Research Assistance Awards
- Distinguished Service Award

AIFRB Executive Board Mid Year Conference Call - April 23, 2008

Present: Bayliff, Fox, Friedland, Helle, Jones, Keegan, Myers, Passino-Reader, Schaeffer, Shimada, Southward, Vaughan, Wing

Thank you to Allen Shimada and NMFS for the conference line.

- Arrangements for August Board Meeting-Joe Rachlin and Barbara Warkentine reported: August 16-17, from 9:00 5:00 pm. AIFRB funding available is about \$1200. Tom Keegan agreed to work with others to try to raise additional funding. John Magnuson will attend to receive the Outstanding Achievement Award.
- Doug Vaughan agreed to update the AIFRB poster.
- <u>AIFRB-AFS symposium</u> (Doug Vaughan): "Tagging and its Use in Stock Assessments" will be August 18 and 19, 2008.
- <u>Treasurer's update</u> (Allen Shimada): Allen reported that there is currently \$13,900 in the checking account, compared with \$16,200 last year.
- <u>Membership</u> (Tom Keegan): Tom reported 15 new members this year, including 5 students. Dave Hank at Humbolt State (San Luis Obispo to Oregon) indicated an interested in recruiting for a chapter there. Tom is to send the recruitment information to all the Directors.
- Progress on the web site (Linda Jones, Allen Shimada): Linda reported that she has updated most of the web pages and is waiting for the webmaster Vickie Lingwood to add the updated material to the web site. Vickie has indicated that this would occur shortly. Thanks to all those who reviewed material for the web site. Tom Ihde, Capital District, has agreed to help with updating the web site as well. Thank you, Tom! The problem with Mozilla Firefox Browser was noted.
- <u>Progress on electronic journal</u> (Kevin Friedland): Kevin reported on progress on the journal, with Brian Rothschild preparing the initial paper for the journal, which will be a perspective on fishery management. This should be submitted shortly and would then be reviewed by the associate editors in order to work out editorial procedures. Kevin has prepared instructions for the authors which will be added to the web site. Once the paper and web site are ready, we can open the journal.
- Status of 2008 Awards (Committee Chairs)
 - Outstanding Achievement Awards (Bill Fox): Bill reported that there is one submission for the Individual Award and it is a good candidate. However, he noted the need for additional submissions so that the best person is selected. There were no nominations for the Group Award.
 - W.F. Thompson Award (Bill Bayliff): Bill B. reported that there were 11 submissions for this award, again this
 year ALL freshwater papers. The Committee members will be submitting names for reviewers or asking for
 your help to locate reviewers.
 - Research Assistance Awards (Jerry Ault): Jerry has indicated that some of the Fredin funds will be given to the top candidate for this award this year. Applications closed in April.
 - Hubbs Committee: Joe Margraf sent an email saying that he would be working with the committee on
 this when the semester ends in a week. The Committee will examine different options for recognition of
 Clark's many contributions to AIFRB and fishery biology and make recommendations to the Board about
 what would be the most appropriate memorial.

Free Memberships?? Case Closed??

To encourage growth in the organization the Board of Control considered offering free first year memberships (all other requirements remain). The proposal was rejected but could be reconsidered if a majority of our current members favored the proposal. Like the idea? Contact an officer or your District Director. Better yet, write an opinion for *Briefs*.

Northern California District Ponders Salmon

The Northern California district had a dinner meeting on April 29, 2008 at the Pacific Rod and Gun Club on Lake Merced in San Francisco. The dinner was hosted by the San Francisco Tyee Club, a sport fishing and conservation group founded in 1938 that raises and releases 50,000 Chinook salmon smolts annually and tries to catch as many of them as possible three years later. Approximately 35 Tyee Club members attended along with more than a dozen members of the Northern California district (plus spouses) including Tom Lambert, Tom and Sharon Keegan, Bob and Susan Lea, Rob Aramayo, Paul Kubick, Ed Ueber, Michele Barlow, Dale Roberts, Kate Harps, Mike McGowan, Carol Wolf, and Susan Ashcroft.

The AIFRB members came from a variety of organizations including consulting companies, community non-profits, the Department of Fish and Game, the National Park Service, and even one (Ed Ueber) who introduced himself as a farmer from the Central Valley. Paul Kubick shared an interesting note that as a graduate student he had received a Tyee Club scholarship that helped fund his research on the Eel River. It turns out that Tom Keegan helped out on that project, too.

District Director Mike McGowan gave a brief presentation about the current plight of the salmon off Northern California and Oregon pointing out the many common interests shared by sport and commercial fishers as well as scientists in AIFRB. We all want restored fish populations and sustainable harvest practices. According to Mike, the consequences of human actions such as damming off spawning areas and diverting water need to be addressed because "ocean conditions" are not under our control.

The recreational anglers at the meeting were strongly of the opinion that the primary problem was with the management of water. It didn't take fishery research biologists to convince them that fish need water. Perhaps we, as research biologists, can help provide other solutions too.

Next up as a topic for the Northern California district is likely to be the proposed Marine Protected Areas in their region.

Submitted by: Michael McGowan

Choosing a Conservation Vocation or a Bureaucratic Career

Personal choices and the environmental consequences

By Richard (Dick) Kroger 2005 160pages Trafford Publications: www.trafford.com/05-1920

Review by Gene R. Huntsman

Member Dick Kroger, whom I have known since 1967, has written what is both a professional biography and a challenge to those in natural resource professions. By detailing his experiences in the highly political, highly emotional arenas of natural resource management in the western United States he distinguishes two groups of government employees (at all levels): 1. those who are so openly and vociferously dedicated to preservation of a healthy environment that they are willing to suffer numerous indignities and career setbacks; and 2. functionaries who are willing to compromise or surrender natural resource values to achieve favor within the bureaucracy, career advancement and financial gain. Kroger clearly has naught but disdain for the latter class of individuals and even more clearly would encourage young biologists to strive for entry into the first group. My first thought on examining this work was that it would make a useful companion to the American Fisheries Society Careers in Fisheries Handbook, but a quick second thought was certainly not. Most young professionals will become disillusioned quickly enough without a manual on how to become so.

Dick put a lot of work into this document, and it is clear that his goal is to encourage readers to become members of the white-hatted, good guy (and gal) team. I hope his plan works. On the other hand I'm not sure that I have ever personally known anyone who became a better, more caring person just because they read the Bible. It just seems to me that the World has its allotments of jerks and of heroes and the camp in which you pitch your tent depends on genes, on whether your mommy changed your diaper in a timely fashion, or on whether you have a chronic case of swollen hemorrhoids, etc.

I have not read every word in Dick's book yet (I keep fearing that I will find myself in there somewhere) but it appears that his treatment does not include and is not particularly applicable to many in the AIFRB membership. Many of us are not, as was Kroger, on the front line of negotiation and resource protection (his term was "combat biologist"). Instead a large fraction of AIFRB members provide the research necessary for that protection. Thus it may not be necessary, and it might even be counter productive, for research oriented members to be advocates. I always believed that the stock assessments in which I was involved were their own best spokesmen. When, because repeated analyses over many species kept indicating overfishing, some management council members hinted that I might have a conservation agenda, I always pointed out that I got paid the same amount whether the numbers that I ground out made their lives easy or hard.

The book is just like Kroger himself: unambiguously honest, refreshingly sincere, earthily plain-spoken. Kroger is no Hemingway but the book reads better than a popular but lurid biography of Nancy Reagan that once befell me, and it beats the socks off the average Sue Grafton (B is for Banal) novel. If I had students I would have copy or two around to introduce them to the real, gritty world of life on the frontlines of resource protection.

Huge "sturgeon ball" in Columbia a mystery!

By Michael Milstein, Newhouse News Service

PORTLAND — When sonar surveys spotted a vast pile of rubble in the Columbia River below Bonneville Dam a few months ago, officials suddenly worried that part of the dam structure was eroding into the river. "Everybody said, 'Oh my gosh, we need to get divers out there right away,' "recalled Dennis Schwartz, a fisheries biologist with the Army Corps of Engineers, which oversees the dam. What they found below the spillways in February was not a giant pile of rock at all, but a humongous pile of thousands upon thousands of sturgeon — some of them 14 feet long or longer — lounging together in frigid water at the bottom of the river. "We call it the big sturgeon ball," Schwartz said.

The mountain of white sturgeon contained around 60,000 fish, according to a rough estimate by Michael Parsley, a research fisheries biologist with the U.S. Geological Survey's Columbia River Research Laboratory in Cook, Skamania County. He described that estimate as "probably conservative." It was an aquatic phenomenon nobody had ever seen at such a monstrous scale, offering a startling glimpse into the life of the Columbia's largest and most ancient fish. If the estimates are anywhere near correct, the congregation of sturgeon may represent 5 to 10 percent of all the white sturgeon in the lower Columbia River, Parsley said. The conclave apparently broke up in March as the Corps increased water releases through the dam to help salmon, Schwartz said.

An Army dive team discovered the sturgeon when it sent down a remotely operated submersible to take a look at what everyone thought was debris. The lingering question is: What were all the fish doing there? "Normally they're pretty spread out," Schwartz said. "You don't see this balling behavior." On videos recorded by the underwater camera, the fish appear to be lounging, many on top of one another, some even upside down, at depths of 40 to 50 feet. Biologists considered whether the fish may be putting up an organized defense against sea lions showing up in increasing numbers to gobble salmon and sturgeon below the dam. They discovered the sturgeon ball just as sea lions started to show up, but they also point out that sturgeon have been known to gather — though in lower numbers — in other places where there are no sea lions. "The correlation [with sea lions] would probably be pretty weak," Schwartz said. "They all seemed to be just hanging out together." Similar winter gatherings of sturgeon have been documented far up the Columbia in Canada, but not at the tremendous numbers seen below Bonneville, Parsley said. Biologists are not sure why the fish collect that way. "We don't know whether that one aggregation is in response to sea lions being there, or if they do this every year," he said. He said the fish may bunch up for safety as they conserve energy during the cool months of winter. The water was about 34 to 35 degrees. "They were just lollygagging — definitely not expending energy," he said.

Sturgeon are ancient survivors that have changed little since the time of the dinosaurs. They can weigh more than 1,500 pounds and live well over 100 years. Teams working at the dam have reported some unusual sturgeon activity since sea lions began appearing in larger numbers at the dam each spring in recent years, eating both salmon and sturgeon.

Biologists speculated the fish may have been trying to avoid sea lions, said Robert Stansell, a Corps of Engineers biologist at the dam. Sea lions — mainly the federally protected Steller sea lions — were spotted gobbling more than 600 sturgeon this year, although the number dropped off later in the spring, he said. Hundreds of sturgeon were also found in the dam's fish ladder last winter, which was unusual, he said. Parsley said sturgeon are so poorly studied that biologists don't know much about their behavior. Big gatherings of the fish in the depths of the river may be more common than anyone realizes. "I firmly believe they do this elsewhere in the river," he said. Though salmon are well-known, sturgeon are by far the largest and longest-lived fish in the river system — and one of the most mysterious. "They're the woolly mammoth, the saber-tooth tiger or the lion of the Columbia River," Parsley said. "There's just still a lot to be learned about them."

Sumbitted by: Bernie Skud

Secretary Needed!

Long serving, long suffering incumbent Secretary Barbara Warkentine desires and has earned retirement. Why not serve and help shape AIFRB? Volunteer to be secretary. Contact an officer or your district director to offer your time and intellect.

Good Aquatic News

A Counterpoint to the American River 10 Most Threatened List

10 Waters to Watch list celebrates acceleration in aquatic conservation

The 10 Waters to Watch list, assembled by the nation's leading authorities on aquatic conservation, is a collection of rivers, streams and shores that will be cleaner and healthier habitats for the many fish and wildlife species and people who call these areas home. Thanks to the combined actions of concerned community groups, non-profit organizations, local watershed groups, Native American tribes and state and federal agencies, these waters are being improved by planting stream-side vegetation, removing structures blocking fish from habitat and protecting bodies of water from the effects of industrial processes, agriculture and livestock. They are representative of freshwater to marine waters across the country including lakes and reservoirs that are improving through the conservation efforts of the National Fish Habitat Action Plan — a bold initiative to reverse persistent declines in aquatic habitat.

Big Spring Branch, Wisconsin

Midwest Driftless Area Restoration Effort: A part of the Blue River watershed of the lower Wisconsin River, Big Spring Branch is 5.5 miles of exceptional resource water that supports naturally reproducing brook trout and brown trout. The watershed has suffered under heavy agricultural pressure. Improved land management practices in recent years have improved in the watershed, increasing groundwater recharge, raising overall water quality, and lowering stream temperatures. Erosion of stream banks continues to be a problem and the absence of sound riparian management has allowed invasive woody vegetation, such as boxelder, to contribute to stream bank instability.

Lake Oconee Island, between Atlanta and Augusta, Georgia

Southeast Aquatic Resources Partnership: Lake Oconee is a 19,000-acre reservoir on the Oconee River in the Altamaha Basin, known as one of the most biologically diverse watersheds in the world. The lake, about 70 miles east of Atlanta, was impounded for hydroelectricity in 1979 behind Georgia Power Company's Wallace Dam. Lake Oconee's shoreline has become heavily developed over the past decade with lakefront homes, businesses, and golf courses—and development continues at a rapid pace. Much of the natural shoreline vegetation and fish habitat has been replaced with seawalls, bulkheads, and piers. Aquatic plants (important food source and ecosystem component) are practically non-existent in the lake and shoreline woody debris is very limited. In addition, island shorelines are subject to erosion from fluctuating water levels and boat wakes.

Little Susitna River, near Wasilla and Anchorage, Alaska

Matanuska-Susitna Basin Salmon Habitat Partnership: As one of the focal areas for the Matanuska-Susitna Basin Salmon Habitat Partnership, restoration work on the Little Susitna River has been brisk. And there's no shortage of fish in need of safe passage and healthy habitats in this spectacular watershed. The Little Susitna River watershed produces the State's second-largest freshwater harvest of coho salmon and the sixth-largest number of harvested Chinook salmon in Northern Cook Inlet. It also supports populations of chum, pink and sockeye salmon, as well as many resident fish such as Dolly Varden and rainbow trout. But one of the big problems for fish in the Little Su' is that an estimated 95% of the 35 culverts in the watershed are at least partially blocked to fish migrations.

O'Dell Spring Creek, near Bozeman and Ennis, Montana

Western Native Trout Initiative: With some help, O'Dell Spring Creek is bouncing back to life. A 12 mile portion of spring-fed stream was heavily channelized in the 1950's to drain the riparian wetlands and improve agricultural opportunities. Now the creek is being restored to a high-quality stream by reshaping the natural stream course and returning the floodplains to riparian wetlands. O'Dell Spring Creek is no small stream—contributing over 200 cubic feet per second to the mainstem Madison River, one of Montana's premier blue-ribbon trout fisheries. It is also an important spawning site for several species of trout.

South Fork Chalk Creek, near Coalville, Utah

Western Native Trout Initiative: Even in the best of times, good habitat for trout is a scarce commodity in northeastern Utah. But for the Bonneville cutthroat trout, Utah's state fish, a little more habitat is about to be accessible. The Bonneville cutthroat is one of 14 recognized subspecies of cutthroat trout native to the western United States. Once also found in Idaho, Wyoming and Nevada, the fish is now limited to small isolated populations in the headwaters of mountain streams and lakes of Utah's Bonneville Drainage Basin. Recent declines in the population have been attributed to habitat loss and impacts from introduced nonnative rainbow trout. The status of the species is now being reviewed to determine if it should be listed as threatened or endangered under the Endangered Species Act.

Stinky Creek, near Alpine, Arizona

Western Native Trout Initiative: In the heart of the White Mountains in eastern Arizona lives a long-time resident—found nowhere else in the world—the Apache trout. Like the Native American Tribe it is named after, the Apache trout has persevered through rapid habitat changes since the late 1800s. First the species was over-harvested from the abundant creeks and streams by settlers moving through Arizona to California and other parts of the west. Next, its streams were altered through unsustainable land use practices such as over grazing, clear-cutting timber stands, and unnatural fire regimes. And to top it off, the settlers brought with them fish species not naturally found in the mountains of Arizona—rainbow trout, brown trout, and brook trout,

among others. These new fish species out-competed, hybridized, and preyed on the native Apache trout.

Tampa Bay Shoreline, MacDill Air Force Base, Florida

Southeast Aquatic Resources Partnership: The historical loss of mangroves along the eastern coastline of MacDill Air Force Base has left the shoreline exposed and subject to severe erosion. Construction of near-shore oyster reefs along the coastline reduces wave energy, encourages sediment build-up, and restores native vegetation, such as marsh grasses and, eventually, mangroves. The inter-tidal oyster reefs improve marine habitat diversity and help restore natural vegetative barriers to stabilize coastal sediments.

Trout Run, Filmore County, Minnesota

Midwest Driftless Area Restoration Effort: A highly popular destination among trout anglers in southeastern Minnesota is Trout Run Creek, a 13-mile spring-fed stream that empties into the north branch of the Root River in Fillmore County, Minnesota. The stream harbors quality size brown trout, mottled and slimy sculpin, and American brook lamprey. Trout Run is situated in a narrow valley where the stream and associated floodplain are often confined by bedrock outcroppings. The landscape in this focus watershed is dominated by row crops and grazing cattle—contributing to land erosion and sedimentation in the streambed. As a consequence, several reaches of Trout Run are non-characteristically wide and shallow, with stream velocities insufficient to scour fine sediments. These areas lack sufficient habitat for spawning, feeding, and resting, as well as overhead cover, which provides security for adult trout. The Hiawatha Chapter of Trout Unlimited, the Minnesota Department of Natural Resources, and the Fillmore County Soil and Water Conservation District are helping landowners implement best management practices within the watershed to reduce soil loss and runoff to Trout Run Creek.

Williams Run, northeastern Pennsylvania

Eastern Brook Trout Joint Venture: Aquatic habitat in Williams Run has been severely damaged since coal mining activities produced acid mine drainage into the stream. Water conditions were extremely degraded with a very low pH, no alkalinity, and both iron and aluminum present. This point-source pollution left the stream uninhabitable for brook trout or other aquatic life. With funding provided through the Eastern Brook Trout Joint Venture, the South Sandy Creek Watershed Association is working with a host of other public and private partners to bring Williams Run back to life. Construction of a passive limestone bed in 2008 will provide the necessary treatment measures to restore water quality conditions to a healthy level and allow aquatic species, such as the brook trout, to return to Williams Run.

Aaron Run, Frostburg, Maryland

Eastern Brook Trout Joint Venture: A waterway, once a home to eastern brook trout and many other aquatic animals, Aaron Run has been short on fish ever since historic mining activities polluted the stream. Like many waters in the northeastern United States, acid mine drainage has severely impaired water quality of the creek causing very low pH levels. In addition, mining practices damaged the stream banks and agricultural impacts in the watershed have led to erosion of the stream banks.

Good Aquatic News II

More America's Most Endangered Rivers TM Success Stories Four more rivers moved from the America's Most Endangered Rivers TM list to a growing list of great victories in river conservation.

Wolf River, Wisconsin

Listed: 1995, 1997, 1998. Threat: Proposed zinc and copper sulfide mine. Victory: Thousands spoke out agains the mine, and in 2003 two Native American tribes bought the mine site. The land purchase killed the mine proposal, and ensured the area will be protected to support clean water, tourism jobs and tribal culture.

Columbia's River's Hanford Reach, Washington

Listed: 1997, 1998. Threat: Harmful land development. Victory: Advocacy helped create the Hanford Reach National Monument in 2000, protecting the 51-mile Hanford Reach – the last free-flowing stretch of the Columbia River – and almost 200,000 acres of surrounding lands.

McCrystal Creek, New Mexico

Listed: 2005. Treat: Coalbed methane drilling. Victory: Shortly after the report's release, the state of New Mexico took action to protect this pristine and beautiful stream from drilling and other harmful development by designating all the surface waters of the Valle Vidal as Outstanding Resource Waters.

Penobscot River, Maine

Listed: 1989-1996. Threat: Existing and proposed dams. Victory: In collaboration with strong local partners, American Rivers efforts blocked new dams and helped spur a landmark agreement in 2004 to remove two dams and improve operations on a third. Last year we secured \$10 million from the federal government which matches the funding previously raised from private and public sources and assures that the power company will relinquish three of its dams, making the restoration of the river inevitable.

From: Upstream, Spring 2008

Cod decline may speed 'toxic tide'

Declining fish stocks could be partly responsible for algal blooms in the oceans, researchers have found.

By Richard Black, Environment correspondent, BBC News website

Scientists found that the fall in cod stocks in the Baltic Sea in recent decades increased numbers of the tiny marine plants that produce the blooms. Algal blooms - sometimes known as "toxic tides" - can be poisonous to people, fish and other wildlife, and may be on the increase worldwide. The research is reported in the Royal Society's journal Proceedings B. "In recent years, the frequency of intense blooms (in the Baltic Sea) seems to have increased, and the level in summer has also been increasing," said Michele Casini from the Swedish Board of Fisheries in Lysekil, lead scientist on the new research. The main cause of the blooms has been thought to be increasing levels of nutrients in the sea, with a second factor being sea temperatures driven higher by climate change. Nutrients such as nitrogen and phosphorus wash into the seas from agricultural land, and are also produced by some types of industry - a particular problem in largely enclosed waters such as the Baltic. These nutrients stimulate the growth of types of phytoplankton - varieties of algae - that can form blooms. As well as the toxins they produce, the process takes oxygen out of the water. The scientific team - which also involved researchers from Germany and Latvia - assessed three decades of data on the Baltic Sea food web. Basically, zooplankton (tiny marine animals) eat phytoplankton, and sprat (small fish) eat zooplankton. Finally, cod eat the sprat. "Right now, in the last 30 years, cod have been the top predators in the Baltic, after populations of seals and other marine mammals declined because of hunting," explained Dr Casini. The data showed a simple correlation. As the cod population declined sharply from the early 1980s, the sprat population rose; zooplankton declined, and phytoplankton increased.

Many other factors could have been involved; cod do not exclusively eat sprat, and sprat are also fished. But these do not appear to have had an impact - a statistical analysis ruled out, for example, the possibility that changing herring stocks (which are also eaten by cod) were playing a role.

Instead, the influence of the cod population (which decreased by about three-quarters in a decade) emerged as the dominant factor. The relative importance of over-fishing to algal blooms outside the Baltic is another issue. Food webs in other parts of the oceans are more complex, and data less available; so even doing the research would prove problematic. Nevertheless, the idea that changes in top predators percolate down through the food web is well accepted. It is simply that here, the percolation appears to have an impact at the very lowest level that is significant, visible and potentially problematic.

Coastal Sea-Going Trout Given Second Chance

Coastal cutthroat trout are beautiful fish that were once abundant across the Pacific Northwest. Their name is derived from the brilliant slash of orange or red that usually marks their lower jaw line. Coastal cutthroat trout have evolved a complex survival strategy, with some fish spending their entire lives in small tributary streams while others migrate from rivers to the ocean and then return to the rivers to spawn, much like salmon. And much like salmon, the ocean-migrating populations are in decline because their migratory corridors are severely threatened by logging, grazing, hydropower, urban development, estuary degradation, and other land and water use.

Because of declining numbers, the Clinton administration proposed to protect coastal cutthroat trout in the Columbia River and southwestern Washington as threatened in 1999. On July 5, 2002, the Bush administration reversed the proposed rule, even though there wasn't any new information indicating the trout was faring better. Earthjustice attorney Steve Mashuda and former colleague Michael Mayer challenged this action and argued the fish and their habitat need protection.

The case went to the Ninth Circuit Court of Appeals which ruled that the U.S. Fish and Wildlife Service did not give Columbia River and southwestern Washington populations of the coastal cutthroat trout a fair shake when it denied the trout protection under the Endangered Species Act. The court told the agency it couldn't continue to ignore the degraded habitat conditions that plague the ocean-migrating populations.

The plaintiffs in the case, Center for Biological Diversity, Oregon Wild, Pacific Rivers Council, and WaterWatch, are hopeful that the ruling will lead to much-needed protection for the imperiled fish. –JM

From: In Brief, Summer 2008

Atlantic Red Snapper – Is a closure for the fishery in the near future?

Red snapper stocks in the South Atlantic were recently assessed through the Southeast Data, Assessment, and Review (SEDAR) stock assessment process. Based on information from the SEDAR assessment, the South Atlantic Fishery Management Council will need to implement management measures to dramatically reduce fishing mortality of red snapper in order to end overfishing and rebuild the stock. It is estimated that total fishing mortality (landings and discards) of red snapper must be reduced by at least 87%. In order to rebuild the stock, the total catch (landings and discards) of red snapper must be reduced, not just the landings.

The red snapper SEDAR workshops were held between July 2007 and February 2008. Data through 2006 were used for the assessment and included records of commercial catch for the hook-and-line and dive fisheries, logbook data from the recreational headboat fishery, and the Marine Recreational Fisheries Statistical Survey (MRFSS) data for the rest of the recreational sector. The assessment provides an evaluation of the health of red snapper stocks under current management and allows managers to project the health of the stocks under various harvest scenarios. The Council and the Council's Scientific and Statistical Committee (SSC) will review the assessment results at the June 2008 Council meeting in Orlando. The SSC will advise the Council on whether the assessment was performed utilizing the best available data and whether the outcome of the assessment is suitable for management purpose.

Under the Magnuson-Stevens Act, the Council has the option to use an emergency action or interim measures to end overfishing, including prohibition of all harvest and possession of red snapper. Following the SSC review of the red snapper SEDAR assessment, the Council will determine whether emergency/interim actions are necessary or if management action can be taken through Snapper Grouper Amendment 18 with an estimated effective date of January 1, 2010. As part of the public hearing/scoping meeting series held in May 2008, the Council solicited input regarding management options to end overfishing for red snapper, including the emergency action or interim rule. Other possible management measures in the Amendment 18 scoping document include (1) a year-round red snapper closure plus a seasonal closure for shallow water snappers or all species in the snapper grouper management unit; (2) reduction in bag limit from 2 to 1 red snapper per person/day or per boat/day combined with a seasonal closure; (3) reduction or elimination of the 20" size limit (a move to help address bycatch mortality); and (4) time/area closures for red snapper, shallow water snappers or all species in the management unit.

From: The South Atlantic Update, Spring 2008

Barrier Reef 'no-take' zones see leap in fish numbers

By Rachel Nowak

A controversial decision to halt commercial and recreational fishing across vast areas of the Great Barrier Reef has proven remarkably effective for reviving coral trout (*flectropomus*, *Serranidae grouper*, *Ed.*) numbers. "Everyone is a little surprised," admits Garry Russ, a marine biologist at James Cook University in Townsville. "We've seen a consistent pattern of recovery of coral trout from just north of Cairns to as far south as Heron Island," he says. "It's an extraordinarily large area."

In mid 2004, the Australian government rezoned the Great Barrier Reef Marine Park to create the world's largest network of marine "no-take" zones. Fishing was totally banned across a third of the park – more than 100,000 km² – including parts of 70 biologically distinct "bioregions". At the time, surveys found that the majority of Australians wanted protection for the reef, but the move was also highly controversial among both commercial and recreational fishers who primarily target coral trout. Surveys carried out by Russ's team now show that coral trout numbers have increased by over 60% in no-take areas around two groups of inshore islands – Palm Island and the Whitsundays – 18 months to two years after rezoning. By contrast, Coral trout numbers in nearby fished areas did not change. "In the long term, the hope is that as numbers build up in protected areas, more fish will spawn successfully, enhancing numbers in fished areas," says Russ.

A second team led by Hugh Sweatman of the Australian Institute of Marine Science in Townsville, has also found that coral trout numbers had increased significantly in no-take zones around reefs from 32 to 200 kilometres off-shore. In four of these offshore regions, numbers of coral trout were between 31 and 64% higher compared to unprotected regions nearby, just two years after the zoning took place. The consistency of the results, combined with the finding that in-shore coral trout numbers did not decrease, suggests that the differences are indeed due to decreased fishing in the off-shore no-take zones, rather than increased fishing elsewhere, says Russ. "It's a very positive start, but full recovery of coral trout will take 10 to 15 years of really effective protection," says Russ. The two teams are monitoring 160 different species of fish, but so far only numbers of coral trout have changed since the rezoning.

Journal reference: Current Biology (vol18, p 514) From: New Scientist Environment, 23 June 2008

Firm eyes river as a source of energy

Another finger in the eye of Ol Man River?? Turbines in river bed could generate enough to power 1.5 million homes. By Jeffrey Tomich

For more than a century, the Mississippi River has been one of the nation's most-important transportation corridors, a muddy, winding pathway for moving bulk commodities such as grain and coal and other goods. Now, a New England startup company wants to harness the mighty river for a secondary purpose - generating electricity. The company, Free Flow Power Corp., is pursuing a \$3 billion plan to install thousands of small electric turbines in the river bed, reaching from St. Louis to the Gulf of Mexico that would collectively generate 1,600 megawatts of electricity - enough to power 1.5 million homes. Gloucester, Mass.-based Free Flow Power is one of a number of developers of so-called hydrokinetic projects, defined as those that produce electricity from river currents or ocean waves and tides - not dams.

Like the dozens of young companies building wind farms across the Great Plains or putting solar panels on roofs in California, interest in hydrokinetic projects is a response to a growing appetite for renewable energy as the nation tries to wean itself off crude oil and natural gas and reduce emissions of carbon dioxide, a heat-trapping gas linked to global warming. "Necessity is the mother of invention, and what's really driving this is the need to develop alternatives to fossil fuels," said Daniel R. Irvin, 48, the company's chief executive.

Free Flow Power already has preliminary permits from the Federal Energy Regulatory Commission to study 59 sites on the river. Each site would consist of hundreds or thousands of turbines installed over a stretch of several miles, according to permit applications filed with FERC, which regulates most of the nation's hydropower projects. The turbines, which would be attached to pilings in the river bed, are about two feet in diameter and probably would be made of carbon fiber or another lightweight composite material, Irvin said. The river's natural flow would spin the turbines to generate electricity, which would be transmitted to the power grid. Free Flow Power chose the Mississippi River following a nationwide search in which it reviewed government data for 80,000 potential sites, looking for minimum average river flows of about 6.5 miles per hour. The sites between St. Louis and New Orleans were among the best they found and also are near electricity markets in the midwest and southeast, Irvin said.

The FERC permits give Free Flow Power three years to complete detailed environmental and technical studies as well as the first right to seek operating licenses for projects at those locations. Irvin, a former investment banker, is hopeful the company can begin producing electricity as soon as 2012, though it may take five additional years to complete the build out. To be sure, getting there won't be easy. The projects are likely to face close inspection by state and federal environmental regulators and the Army Corps of Engineers, which must assure the turbines don't interfere with river navigation. There's also the potential impact to fish and wildlife habitat, including the pallid sturgeon, an endangered species native to the Missouri and Mississippi river basins.

In January, an official with the Missouri Department of Conservation urged FERC to require an environmental impact statement on the "cumulative effects of proposed hydrokinetic power projects." "The department has serious reservations regarding the installation and operation of hydrokinetic power within the Mississippi River," Janet Sternberg, a policy coordinator for the department, said in a letter to FERC. "Little information is available regarding the environmental impacts of a single project, or the cumulative environmental impacts from 14 projects that may affect more than 74 miles of the river." Irvin said he expects scrutiny and has reached out to state and federal regulators. "With a public resource like a river, there are a lot of concerns that need to be addressed," he said. Another hurdle is cost. Free Flow Power believes its projects can produce electricity at a price that's competitive with the output from natural-gas-fired plants. "This is not as cheap as conventional hydro," Irvin said. "But we're working hard to make it comparable with fossil fuels."

Free Flow Power and other developers of hydrokinetic projects are hopeful to be included in legislation approved by the U.S. House of Representatives that makes production tax credits available to wind power developers. The measure would provide a tax credit per kilowatt hour that helps level the playing field with more-established generating technologies. Free Flow Power sees scale as a key to its business plan to help hold down per-unit costs and improve economics. "To try to do a one-to five-megawatt site or a bunch of smaller ones is pretty much setting yourself up for failure," Irvin said.

The so-called "in stream" hydrokinetic projects being pursued by Free Flow Power represent just one of several new technologies being developed to take advantage of untapped energy sources. Virginia-based Verdant Power began testing underwater turbines, resembling the large wind turbines sprouting up across the Midwest, in New York City's East River off New York in late 2006 as part of the Roosevelt Island Tidal Energy Project. A larger commercial project is planned for Canada's St. Lawrence River. Another company, Houston-based Hydro Green Energy LLC, also is pursuing projects in the Mississippi. Still others are developing technologies that would generate electricity from ocean waves and tides. "There are some new technologies now that are being developed that we certainly haven't thought about before," said Linda Church Ciocci, executive director of the National Hydropower Association in Washington.

These new technologies are the product of rising prices for conventional fuels such as oil and natural gas that help make emerging technologies more viable as well as state and federal policies that encourage the use of cleaner renewable energy. Proposed hydrokinetic projects are just part of the untapped potential for hydropower, according to a 2007 study by the Electric

Power Research Institute. According to the study, the United States has the resource potential to develop an additional 23,000 megawatts of hydropower by 2025, including 3,000 megawatts from new hydrokinetic technologies and 10,000 megawatts from ocean wave energy devices.

From: St. Louis Post-Dispatch, April 1, 2008

Marine Fisheries seeks help against shrimp threat

By Jannett Pippin, Freedom ENC

MOREHEAD CITY – the black tiger shrimp has a distinct look with the dark and white stripes that encircle its shell; it just isn't normally seen in North Carolina waters. The shrimp species, *Penaeus monodon*, is native to the West Pacific but has been found in local waters, potentially posing a threat to the shrimp indigenous to the area. That has the N.C. Division of Marine Fisheries turning to fishermen for their help in learning more about the black tiger shrimp's appearance in the area and what the impacts may be. With another shrimping season getting under way, the division is reminding fishermen of the presence of the non-native species and asking that they report the catch of any black tiger shrimp. "We got three reports last year, and we're trying to be proactive for the upcoming shrimping season," said Trish Murphey, a division biologist.

Fishermen reported capturing three of the shrimp last year, two in the waters of Pamlico Sound and the other offshore from Bogue Banks, she said. There was one report of a black tiger shrimp being caught in North Carolina in 2006. During the past several years, black tiger shrimp have also been reported in Louisiana, Alabama, Florida, Georgia and South Carolina waters. While there have only been a handful of reports in North Carolina, Murphey said there is now an awareness of the black tiger shrimp's presence and a desire to gather as much data as they can. "We don't know what's out there so that's why were asking fishermen to report any they see," she said. The impact of the black tiger shrimp on native species is unknown but Murphey said the introduction of non-native species to an area can result in problems such as new disease and competition for food and habitat. "The spread of disease, that tends to be a big concern," she said.

It is believed that black tiger shrimp were introduced into coastal waters of the South Atlantic and Gulf of Mexico by escaping from aquaculture facilities, the Division of Marine Fisheries said. However, DMF said, no commercial shrimp farms in North Carolina grow black tiger shrimp, so it is unlikely the shrimp were released from aquaculture operations in this state.

The black tiger shrimp has distinct dark and white stripes along its back. Fishermen who capture one, should freeze the shrimp, record the date and location where it was caught and contact Trish Murphey at the N.C. Division of Marine Fisheries at (800) 682-2632 or Trish.Murphey@ncmail.net.

From: Sun Journal, New Bern, NC, May 12, 2008

(Hey should be no problem! Won't all the newly invaded lionfish gobble up all those tiger shrimp? Ed.)

Herring Fishermen Undoing Restoration Progress

Trawlers Interfere with Rebuilding of Groundfisheries

In New England, small fishermen have seen the benefits of conservation-minded fishing practices. Now, with the help of Earthjustice, they are trying to pass that wisdom along to the region's large-scale industrial herring fleet. The herring industry is becoming increasingly dominated by high-volume trawlers, which drag massive small-mesh nets behind them, capturing and killing all forms of sea life in their path.

Current policies allow these ships to fish in areas of the ocean closed to nearly all fishing boats – areas identified as spawning grounds and sanctuaries for depleted stocks of cod, haddock, and other groundfish. The powerful herring industry pressured fishing officials to allow its trawlers into these areas, and now haul in thousands of pounds of groundfish along with its herring catch each year.

Arguing that the herring trawlers are undermining attempts to rebuild New England's long-suffering groundfish population, Earthjustice attorney Roger Fleming sued to evict herring trawlers from these closed areas in January. Earthjustice is representing Midcoast Fishermen's Association, a group of small groundfishermen in the case.

Midcoast Fishermen's Association Chairman Glen Libby is a commercial fishermen who remembers when his fellow fishermen questioned the plan to close these spawning areas to fishing boats. Years later, groundfishermen have recognized the value of their sacrifice and want the herring trawl fleet to match their efforts to restore the diversity of New England's marine ecosystem. Libby says his colleagues now see these closed areas as nurseries, breeding a future for two rare breeds: fish and small fishermen. – KS

From: In Brief, Spring 2008

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American Institute of Fishery Research Biologists

Promoting excellence in fishery science

...BRIEFS...

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JULY, AUGUST 2008

President's Message

I am taking over from Linda Jones and working out what needs to be done and when. Linda did a great job as President and will continue getting our new webpage set up. My immediate plan is to get material together into a second brochure that indicates why people might like to join AIFRB. We have some new programs as you may know, but I think we offer an opportunity for people to give something back to the profession as well as to the resource. I am also working with Brian Rothschild to complete the publication of our book on the Future of Fishery Science in North America, as well as with Steve Cadrin to plan our next conference. I think it is the right time for AIFRB and, with everyone's help, I believe we can make a difference. Dick Beamish

Down to Business! Annual Reports 2008 President's Report

The Executive Board meeting in Ottawa, Canada marks the end of my term as AIFRB President. It has been a term with several important events for AIFRB. In 2007, we celebrated our 50th Anniversary with a very successful international symposium, The Future of Fishery Science in North American, masterfully organized by Dick Beamish and Brian Rothschild with the great efforts of many AIFRB members and students. The Board has already started plans for the next symposium. The symposium volume is due to be published this fall. It is an excellent view of the promise and challenges in fishery and related sciences over the next decade and should provide interesting perspective for everyone.

We initiated the new Kasahara Early Career Award and awarded the first to Dr. Jamal Moss, NOAA Fisheries, Alaska Fishery Science Center. Dr. Moss was unable to attend the AIFRB reception in San Francisco to receive this new award but Kate Myers, NW Regional Director, presented the award to him during the Alaska Marine Sciences Symposium in Anchorage in late January. We are very grateful to Mrs. Toshiko Kasahara for her continued generosity and support to AIFRB and for making this award possible.

This year we also have moved forward on initiating the AIFRB electronic journal. When the web site is finished this fall and the inaugural papers are completed, we will launch the first issue. I encourage you all to submit papers to our peer-reviewed, electronic publication, Journal of the American Institute of Fishery Research Biologists when it comes online, hopefully before the end of this year.

Part of the AIFRB responsibility is the mentoring of the next generation of scientists. To meet this role, we initiated a new service this year for early career members for pre-review of manuscripts by AIFRB Fellows. I encourage any student or member to take advantage of this opportunity.

An important objective of AIFRB is recognizing outstanding achievement and competence in fishery and related science. We awarded the Outstanding Achievement Award to Dr. Peter Moyle during the AIFRB reception in 2007 for his outstanding contributions to fishery science and conservation and in training students. At the AIFRB reception this year, we recognized Dr. John Magnuson for his distinguished career in fishery science and conservation. Our W.F. Thompson Award for the best student paper in fishery and related sciences published in 2005 was awarded to Dr. Edwin J. Nitlitschek, a recent graduate of the University of Maryland and currently an associate researcher at the Universidad Austral de Chile for his paper "Modeling Spatial and Temporal Variation of Suitable Nursery Habitats for Atlantic Sturgeon in the Chesapeake Bay", published in Estuarine, Coastal, and Shelf Science, Volume 64, Number 1.

In 2007, four AIFRB Associate Members received \$500 Research Assistance awards: Ms. Anna Bella de los Santos Camarillo, Centro de Investigaciones Biologicas del Noroeste, Baja California, Mr. Allen Andrews, Moss Landing Laboratories, California, Mr. Mathew Breem, Grand Valley State University, Michigan and Ms. Kimberly Wieber, College of Charleston, South Carolina. Congratulations to them all. Due to problems with the web site this year, we did not get a large number of applicants for this award and only two will be awarded. Funding for the top candidate this year will be from funds donated by family and friends in memory of Mike Fredin.

With the continuing incredible efforts of Gene Huntsman we published six issues of *Briefs* this year. The next issue will be out in August 2008. Gene was awarded the Distinguished Service Award last year for his continued great service over the past decade plus to AIFRB in publishing the *Briefs*. The Distinguished Service Award for 2008 will be presented at the AIFRB reception in August, to Tom Keegan for his outstanding work as Membership Chair for AIFRB.

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

One of the challenges when I took office was the lack of adequate funding for AIFRB events and activities. The 2007 symposium provided some additional funding that will allow us to contribute funding for the next international symposium as well as consider additional new activities. However, increased funding to support new and ongoing AIFRB activities is still a concern. Increasing the AIFRB membership is one way to increase the amount of funding available for new activities such as the electronic journal. To accomplish this, the Executive Board set a goal last year to increase membership by 10% over the year. At this point I do not have the data to determine if we met this goal or not. We need your help in inviting colleagues and fellow scientists who have demonstrated leadership and achievements in fishery and related sciences to join AIFRB.

A second goal I set was to have a functioning web site for AIFRB. The web site has been a big challenge but it is vital to providing information to our members. We have contracted with Networksolutions who hosts our web site to update the AIFRB web site. If all goes according to the schedule, the first pages of the new web site will be functional in August. We will then have an easy and convenient way to provide regular and up to the minute information to members and our colleagues.

In closing my report, I wish to thank all the Executive Board officers, District Directors (past and present), Committee Chairs and Committee Members for their dedication to AIFRB over the past three years. You have all been dedicated to AIFRB and made outstanding efforts. I appreciate all your efforts and friendship. I also thank all our members who have supported and helped AIFRB in all its activities. AIFRB has an important role to fill and each of you is critical in the success of AIFRB. Finally, I wish Dick Beamish great success in building a bigger and better AIFRB for the future and much success in advancing the goals of AIFRB.

Thank you all for making the past three years rewarding and fun.

Linda Jones, President

And many, many thanks to Linda for her assistance and support in preparing Briefs for the last three years. Ed.

Secretary's Report

Barbara Warkentine

I would like to thank Steve Cadrin for stepping in for me as secretary for the 2007 annual meeting.

I would also like to thank Kathryn Dickson for stepping in to take my place as Secretary for AIFRB. I will do all that I can to help her learn this job and to make the transition as smooth as possible for all parties involved.

I thank AIFRB for accepting me for so long (10 years) as their secretary and will continue to be an active member of this professional organization.

And Barbara too bailed out my hiney many times in preparation of Briefs. I'll miss her. Ed.

Membership Committee Report

September 2007 through July 2008 Thomas P. Keegan, Chair

Membership Committee

Mr. Thomas P. Keegan, Chair, Dr. Cecil A. Jennings, Dr. Joe Margraf, Dr. Douglas S. Vaughan, Dr. Barbara Warkentine and Dr. Joseph W. Rachlin

New Membership for 2008

A total of 10 new members were accepted into the Institute in 2008.

New Members - 2008; Associate Students (2), Associate Professionals (2), Members (4), Fellows (2)

Change in Status; Member (2), Fellow (2), Emeritus Fellow (1)

Membership by District

A summary of new membership by regions and districts follows:

NORTHWESTERN STATES REGION; Northwest Washington District (2)

SOUTHWESTERN STATES AND WESTERN MEXICO REGION; Northern California District (2), Southern California District (2), New Mexico District (1)

NORTHEASTERN STATES AND EASTERN CANADA REGION; New England District (2)

SOUTHEASTERN STATES AND EASTERN MEXICO REGION; Florida District (1)

New Members by District

Northwest Washington; Michael Parsely, Orlay Johnson, Northern California; Stephen Swales, Mark Gard, Southern California; Brian Zitt, Manna Warburton, New Mexico; Nicole Harrings New England; Chris Cotroneo, Adam Scott Barkley Florida; Todd Gedamke

Promotions

The following applicants for advancement were approved and promoted to:

MEMBER (2); Robert DuBey, Daniel Dougherty, FELLOW (3); Stephen Waste, J. Christopher Powell, Joseph DosSantos EMERITUS (1); Robert Tasto

The table below summarizes by year the number of persons assigned to each category for new membership and promotions.

MEMBERSHIP SUMMARY: 1979 TO JULY 31, 2008

(1979-80 may be incomplete)

NEW MEMBERSHIP PROMOTIONS

| Year | Associate | Member | Fellow | Total | Member | Fellow | Emeritus | Total |
|------|-----------|-------------|--------|-------|------------------|--------|-------------|-------|
| 1979 | 3(21%) | 10 | 1 | 14 | 13 | 37 | 15 | 65 |
| 1980 | 13(22%) | 29 | 7 | 59 | 4 | 11 | 4 | 19 |
| 1981 | 13(23%) | 40 | 4 | 57 | 4 | 10 | 5 | 19 |
| 1982 | 31(69%) | 12 | 2 | 45 | 2 5 | 3 | 2 | 7 |
| 1983 | 41(59%) | 27 | 2 | 70 | | 7 | 21 | 33 |
| 1984 | 47(67%) | 19 | 4 | 70 | 6 | 13 | 18 | 37 |
| 1985 | 26(55%) | 19 | 2 | 47 | 10 | 11 | 12 | 33 |
| 1986 | 23(53%) | 19 | 1 | 43 | 3 | 2 | 8 | 13 |
| 1987 | 16(35%) | 28 | 2 | 46 | 8 | 10 | 12 | 30 |
| 1988 | 20(56%) | 15 | 1 | 36 | 8 8 2 8 | 8 | 19 | 35 |
| 1989 | 12(46%) | 13 | 1 | 26 | 2 | 6 | 15 | 23 |
| 1990 | 18(69%) | 7 | l | 26 | 8 | 21 | 14 | 43 |
| 1991 | 10(43%) | 9 | 3 | 23 | 3 | 2 2 | 8 5 | 13 |
| 1992 | 9(50%) | 7 | 2 2 | 18 | Ī | | | 8 |
| 1993 | 11(50%) | 9 | | 22 | 10 | 10 | 16 | 36 |
| 1994 | 20(49%) | 17 | 4 | 41 | 16 | 26 | 10 | 36 |
| 1995 | 22(69%) | 8 | 2 5 | 32 | 3 | 2 2 | 9 | 14 |
| 1996 | 20(45%) | 19 | 5 | 44 | 4 | 2 | 18 | 24 |
| 1997 | 9 | | - | 9 | - | - | | - |
| 1998 | 16 | 10 | 5 | 31 | 3 | 4 | 10 | 17 |
| 1999 | 6 | 10 | 2 | 18 | - | 6 | 5 | 11 |
| 2000 | 14 | 4 | 1 | 19 | 5 3 | 13 | 6 | 24 |
| 2001 | 17 | 5 | 4 | 26 | 3 | 7 | 5 | 15 |
| 2002 | 3 | 5 | 3 | 11 | 1 | 8 | 9 | 18 |
| 2003 | 9 | 5 2 7 | 2 | 13 | 4 | 7 | 11 | 22 |
| 2004 | 10 | | 4 | 21 | 1 | 4 | 9 | 14 |
| 2005 | 22 | 13 | 3 | 38 | 0 | 5 | 3 2 2 | 8 |
| 2006 | 7 | 7 | 1 | 15 | 2 | 0 | 2 | 4 |
| 2007 | 8 | 11 | 5 | 24 | 4 | 1 | | 7 |
| 2008 | 4 | 4 | 2 | 10 | 2 | 3 | 1 | 6 |

W.F. THOMPSON AWARD COMMITTEE

William Bayliff, Chair

Introduction

The W.F. Thompson Award, for the "best student paper" published during the year in question, has been awarded in most years since about 1964 (when it was awarded for a paper published in 1963). The criteria for eligibility are listed in Appendix 1. I have served as Chairman of the Committee for this award twice, once during the early 1990s (for papers published in 1989, 1990, and 1991) and again since about 2004 (for papers published in 2003, 2004, 2005, and 2006).

The Committee: William Bayliff

Rob Hayward, Anne Hollowed, Frank Panek, and Jack Pearce.

Criteria for eligibility for the Award

Appendix 1 lists the current criteria for eligibility for the Award, and Appendix 3 lists suggested revised criteria. The present criteria were published as "Proposed Modified Qualifications" in the AIFRB *Briefs*, Vol. 36, No. 4, page 5, and adopted at the 2007 meeting of Board of Control (AIFRB *Briefs*, Vol. 36, No. 5, page 3). I had said in my report on the W.F. Thompson Award for the 2007 BOC meeting, "Criteria

12, 13, and 14 are afterthoughts. Criterion 14 was suggested by a reviewer who said that the student should be able to judge which of his several papers was the best and submit only that paper. If this criterion is accepted, obviously Criteria 12 and 13 would have to be rejected." Nevertheless, the list of 14 criteria was accepted without change by the BOC. Criterion 13 in Appendix 1 is unnecessary, since that matter is covered in Criterion 11. (The only difference is that Paragraph 11 is presented in a positive way and Paragraph 13 in a negative way.) Criterion 14 in Appendix 1 contradicts Criteria 12 and 13 in that appendix.

A new proposed list of criteria is presented in Appendix 2. There are 13 criteria, rather than 14, because I left out the present Paragraph 13 (see previous paragraph). I agree with the new proposed Paragraph 12 because sometimes the papers resulting from a single thesis or dissertation are published in different years, which could cause problems in judging.

I strongly disagree with Paragraph 14 in Appendix 1, which is the new proposed Paragraph 13 in Appendix 2. Rob Hayward disagrees with this criterion too. I have not heard from the other committee members regarding this matter.

First, it has already created a problem. A paper by Przemyslaw G. Bajer was submitted for consideration for the award for papers published in 2005, but it did not win the award. Another paper by the same student was submitted for consideration for the award for papers published in 2006. However, the latter paper is technically ineligible for consideration because of Paragraph 14 in Appendix 1. (In this case I think that that criterion should be waived, since that criterion was not in effect when the decision was made to submit the paper published in 2005.)

Second, suppose that four papers, two published in 2010 and two published in 2011, resulted from a single dissertation. The student or his or her mentor might decide that one of the papers published in 2011 was the best, so neither of those published in 2010 would be submitted. Meanwhile, somebody, without the knowledge of the student or his or her mentor, might submit one of the papers published in 2010, which would make the 2011 papers ineligible. (I know of one case in which the student's paper was submitted without his knowledge, and there may be others.)

Third, I think that we should make the criteria as simple as possible. Students and their mentors do not want to hear about complicated and unnecessary rules. Criteria 1-12 in Appendix 1 are simple, reasonable, and straightforward, but Criterion 14 just creates confusion, and could repel students and their mentors.

Securing nominations for the Award

Each nomination must be accompanied by a résumé of the student, which is used to verify that the paper submitted was based on work conducted while the nominee was a student.

I don't remember how we obtained nominations for papers published in 1989, 1990, and 1991, but I remember that we received about five nominations per year. Jack Pearce succeeded me as Chairman of the Committee. I don't know how he obtained nominations for papers, but I know that he had trouble, as no award was given for papers published in 1995 because he couldn't get enough nominations (AIFRB *Briefs*, Vol. 26, No. 4). When I read about that I decided to help him by examining the Fishery Bulletin of the U.S. National Marine Fisheries Service for papers based on work performed while the senior author was a student, and then sending e-mail messages to them suggesting that they submit their papers for consideration for the Award.

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Two or three of those people won the Award.

When I succeeded Jack Pearce in 2004 or 2005, I secured nominations for the 2003 Award by the same method, except that I examined three journals, the Fishery Bulletin of the U.S. National Marine Fisheries Service, the Canadian Journal for Fisheries and Aquatic Sciences, and the Transactions of the American Fisheries Society. I received submissions for about 15 papers published in 2003. (A few of the submissions were published in other journals, however.) I was doubtful about the eligibility of some of the papers, so I conferred with Linda Jones about this, and we agreed that 11 of them were eligible for consideration.

I was somewhat uncomfortable with the above method of securing nominations, and so were the newly-appointed members of the Committee. I found a booklet published by the American Fisheries Society listing the universities in the United States and Canada with fisheries programs and the numbers of faculty members teaching or doing research in fisheries at those universities. I looked up the universities with the largest programs on the internet to get the names and addresses of the heads of the departments. I sent them e-mail messages telling about them about the Award, and asked them to nominate students for the Award. (I have learned the hard way that many people have never heard of W.F. Thompson, so if an e-mail message is sent to somebody the subject line should be "Award for best student paper published in 2006," or something like that, rather than "W.F. Thompson Award.") Also, of course, an announcement was published in the AIFRB Briefs. Also, I have made announcements about the Award at meetings that I have attended, and those announcements have prompted the submission of several papers, including one that won the Award. Also, an announcement about the Award was published in the March 2008 issue of Fisheries, the magazine of the American Fisheries Society. Finally, there is an electronic bulletin board of Latin American fisheries scientists. I have a friend who monitors that bulletin board, and he posted a notice on it announcing the fact that nominations were being sought. I received one nomination of a paper published in 2004 from a professor who had seen the notice on that bulletin board. I have established a mailing list of people to whom I send e-mail messages requesting nominations for the award. In addition to heads of the departments with major fisheries programs, it includes all professors who have submitted papers by their students for consideration for the Award, professors who have reviewed papers that were being considered for the Award, and other professors with whom I am acquainted.

I have been careful to thank the people who have submitted nominations for the Award.

Finding reviewers for the papers

About five papers were submitted each year for the 1989, 1990, and 1991 Awards. I think that there were about four reviewers (including me) each year, and that each of us read all the papers and ranked them from 1 to 5 (or whatever the number of papers was that year). Jack Helle and Vaughn Anthony helped me find reviewers. I don't think that it would be possible now to find people qualified to review all of the papers submitted, and even if we did find such people they probably wouldn't have the time to do that.

Eleven papers were judged eligible for the 2003 Award. Linda Jones and I found reviewers for them. I had made a list of criteria for assigning scores to the papers. Two people each reviewed five papers on freshwater fisheries, one person reviewed three papers, and two other people reviewed one paper each. Five of the papers were reviewed by two people, and the other six were reviewed by one person each. All that I had to do was add up the scores and tell Linda Jones which paper had the highest score.

When the Committee was formed I asked its members for their opinions on the criteria used for judging for the 2004 Award. Bob Carline, a Committee member at that time, suggested a new set of criteria, and we all agreed that his were better than the ones used for the 2003 Award, so his criteria were used for the 2004 and 2005 Awards and are being used for the 2006 Award.

The Committee members and some other people helped me find reviewers for the 2004 and 2005 papers. (When selecting reviewers, it is probably a good idea to eliminate people listed in the acknowledgements of the paper to be reviewed.) Some reviewers are probably stricter or more lenient than others, and different reviewers probably interpret the criteria differently. A partial solution for that is (1) to get more reviewers for each paper and (2) to get at least some of the reviewers to review several papers. My goal for the 2004 and 2005 papers was about three of four reviewers for each paper. (However, Bob Carline and Frank Panek found more than three or four reviewers for the freshwater papers, and I received more than three or four reviews of some of these, which is good, of course.) On the other hand, it is unlikely that all the people who have consented to review papers will do so, which is why it is good to get at least three or four potential reviewers for each paper. (The deadline for receiving reviews of the 2004 and 2005 papers were September 1, 2006, and September 1, 2007, respectively, and I sent reminders to some of the people who had consented to review papers but had not yet sent me their reviews.)

I have been careful to thank the reviewers, once when they consent to review one or more papers and once when they submit their reviews.

Selection of the winner

Non complete, to be announced in *Briefs*, September-October 2008.

After the winner has been announced, I let all the non-winners or their sponsors know that so-and-so won the award for his or her paper entitled such-and-such, and thank them for submitting the papers.

Validity of the scoring

I realize that the winning paper will not necessarily be the best student paper published during the year in question, which is why I enclosed those words in quotation marks in the Introduction. First, a paper that was not submitted for consideration might be better than any that were submitted. Second, we should get about 30 or more qualified reviewers for each paper, and subject the scores to statistical analyses to select a winner. If the scores of the two or three highest-scoring papers were not significantly different from one another, we should get some more reviewers to look at those papers. That would not be feasible, of course. (The same thing could be said about almost any other prize.)

Publicity

News releases about the winner should be sent to the AIFRB *Briefs*, Fisheries magazine, the journal in which the winning paper was published, the alumni bulletin of the university at which the student did the work, his or her major professor, the electronic bulletin board for Latin American fisheries scientists, *etc.*, but this information should not be made public until the announcement has been made at the AIFRB meeting. Also, a picture of the ceremony at which student received the Award might be put in the AIFRB *Briefs* and placed on the AIFRB web site. A link to the winning paper might be placed on the AIFRB web site too. The AIFRB web site also provides information about the Award. The web site is now being revamped, but eventually it should include a description of the Award, the names and email addresses of the Chairperson and Committee members, criteria for submission of papers to be considered for the Award, a list of the winners of the Award, a biography of W.F. Thompson, and possibly some other things, such as criteria for judging the papers.

Award

I know that the amount of the Award has been at least as low as \$250 and at least as high as \$1000, but I don't know whether it has been less or more than those amounts. The winner of the Award and his or her major professor used to receive certificates, in addition to the money for the student, but this has fallen by the wayside and should no longer be mentioned in any publicity concerning the Award. In addition to the congratulatory letter from the President of the AIFRB and the money, the student might be given a 1-, 2-, or 5-year membership, at the appropriate level, to the AIFRB. (The appropriate level could be determined from the résumé that was submitted with the nomination.) I understand that congratulatory letters are also sent to the student's major professors and/or co-authors.

Deadlines

In recent years the deadlines for submission of papers published in year n has been April of year n + 2. For example, the deadline for papers published in 2006 was April 2008. I suggest that the deadline for papers published in year n be December 31 of year n + 1. The committee can start looking for reviewers in January of year n + 2 instead of April of year n + 2, which will give people more time to review the papers. It seems to be particularly hard to get people to review papers during the summer. This was especially bad in 2008, because the AIFRB meeting is to be held in August, rather than in September, as had been the case in previous years. The deadline can presumably be changed without approval from the Board of Control

APPENDIX 1 Present Qualifications For Nomination For The W.F. Thompson Award

- 1. The research must have been conducted while the nominee was a student at an institution of higher learning in the western hemisphere.
- 2. Papers that are considered for the award must be concerned with freshwater or marine biological resource problems. They will be judged on the basis of originality, development and organization, and interest to current problems.
- 3. The results of the research must have been published in a recognized scientific journal, or as all or part of a book, within three (3) years of termination of student status. (If a paper does not meet this requirement, due to a technically uncontrollable reason, such as military service, *etc.*, it may still be considered.)
- 4. Authors may nominate their own papers.
- 5. Multiple authorship is permissible, provided a student is the senior author.
- 6. A résumé, including details of the student author's employment history in fisheries or fisheries related science and his or her status as a student, must accompany the nomination.
- 7. The papers will be submitted to the Chairperson of the W.F. Thompson Award Committee, an AIFRB fellow or member appointed by the President of the AIFRB. The rest of the committee will consist of up to four fellows or members of the AIFRB appointed by the Chairperson. The committee will send copies of the papers submitted to competent reviewers, who need not be fellows or members of the AIFRB.
- 8. The award will consist of a congratulatory letter from the president of the AIFRB and a monetary award. A faculty advisor co-author of an award-winning paper will receive a congratulatory letter from the president of the AIFRB, but no money.
- 9. If the winning paper is based upon research carried out independently by two or more student co-authors, each will receive a congratulatory letter from the president of the AIFRB, and the monetary award will be divided equally among them.
- 10. In most cases the award will be given once each year, but if none of the papers nominated for the award is judged to be outstanding the Committee is not obliged to select a winner of the award for that year.
- 11. Persons who have won the award are eligible to receive it a second time, provided the two awards are based on two distinctly different pieces of research conducted in support of two different degrees.
- 12. If two or more papers based on the same thesis or dissertation are submitted, they will be judged separately.
- 13. If two or more papers based on the same thesis or dissertation are published in different years, and the student wins the award in the earlier year, he or she will not be eligible to win the award again in the later year.
- 14. Not more than one paper based on the same thesis or dissertation may be eligible for the award.

APPENDIX 2

Proposed Modified Qualifications For Nomination For the W.F. Thompson Award

1. through 12. same as above

Note: Two of the five members of the WFT Award committee disagree with Criterion 13, and the other three have not responded to a request for their opinions.

13. Not more than one paper based on the same thesis or dissertation will be eligible for consideration for the award.

Research Assistance Award Program - 2008

Jerald S. Ault, Chair

Committee Members: Colleen Caldwell and Robert Stickney

The Research Assistance (RA) Award established in 1986 is offered annually to AIFRB graduate students and other Associate members to support travel expenses associated with professional development. The RA provides a maximum award 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. All AIFRB Associate Members in good standing are eligible. An individual may receive two awards in a lifetime.

In 2008, two AIFRB Associate Members received \$500 research assistance awards. The award recipients, their affiliation, title of their abstract, and scientific meeting attended are listed below.

2008 AIFRB Research Assistance Award Recipients

Ms. Talia Bigelow, University of Massachusetts at Dartmouth, NOAA Cooperative Marine Education & Research Program, presented a paper entitled 'Estimates of Abundance from Mark-Recapture Analysis of V-Notched American Lobster' at an AIFRB Symposium on "Tagging and Its Use in Stock Assessments" at the 138th Annual Meetings of the American Fisheries Society 2008 in Ottawa, Canada.

Mr. J. Marcus Drymon, University of South Alabama, Department of Marine Science, presented a paper entitled 'Quantifying Regional Differences in Shark Abundance and Distribution: A Step Towards Ecosystem Management' at the 138th Annual Meeting of the American Fisheries Society 2008 in Ottawa, Canada. Mr. Drymon is the winner of the Fredin Fellowship Award given in 2008 by AIFRB for exceptional graduate-level research.

District Annual Reports

Northern Alaska: F. Joseph Margraf, Director

The Northern Alaska District continued to be quiescent during the past year, in keeping with a long-standing tradition. Distance continues to be the major impediment to meeting (350 miles between Fairbanks and Anchorage). Summers are dedicated mainly to field work, and travel during winter can be problematic for many members. I had modest success at recruiting student members and will keep trying. The Alaska Chapter of AFS meets in Anchorage in October 2008. I will work with Bruce Wing, the Southeast Alaska District Director, to attempt to have a meeting of AIFRB members present and to recruit new members. I agree with Bruce that it is not likely to increase our membership or encourage activity by consolidating the Alaska Districts at this time. I made an attempt to contact lapsed members in the District, but have meant with little success. Most lapsed members were either students or emeriti who have either moved on or lost interest.

Southeast Alaska: Bruce L. Wing, Director

This year's annual report of the Southeast Alaska district is as grim as last year's report. As requested, I did contact those district members behind in dues. Some responded favorably. The District had no organized activities; however, as usual several of the members were involved in outreach activities.

AIFRB members in Juneau have independently been active as mentors in a wide variety of student projects. In the Juneau area there are two school science fairs. The high school science fairs quite large, with mandatory participation by the freshman science classes. Participation by sophomore, junior, and senior students is optional. The other science fair is for the "middle" school students and in recent years has emphasized projects based on the local native culture and how it utilizes natural resources. Additionally, there are university undergraduate and graduate science programs to mentor as well as a summer high school science camp and scouting programs.

The high school science fair draws on over 130 members of the local research community for mentors and judges. This is in addition to mentoring undergraduate and graduate university students. Although Juneau has a sizeable research and science based community with university, state, and federal resource agencies, some individuals mentor multiple student projects.

Northwest Washington: Kate Myers, Director

Kate Myers, School of Aquatic & Fishery Sciences. University of Washington, served as acting Director of the Northwest Washington District in 2008. As a part of District activities in 2008, Myers organized presentation of the new Kasahara Early Career Award to the first winner, Dr. Jamal Moss, at the January 2008 Alaska Marine Science Symposium in Anchorage. In addition, District members made and presented a scrapbook of photographs, articles, and information about the new award to Mrs. Hiroshi Kasahara in recognition of her and her husband's generous contributions to AIFRB. No District meetings were held in 2008. Members expressed no interest in organizing or attending District meetings—due in part to the plethora of fishery-related seminars, meetings, and symposiums held by other organizations, universities, and government agencies in the Northwest Washington region. In addition, many of our most active District members are now retired or have passed away, while younger members are seemingly over-burdened with other professional commitments. In an attempt to revitalize interest in local District activities, Myers is planning a fall 2008 fund-raising drive to establish an AIFRB scholarship at the School of Fisheries and Aquatic Sciences, University of Washington. Myers also wants to find candidates for the office of Northwest Washington District Director. District members who are interested in running for office or with to nominate candidates are requested to

contact Kate Myers (tel. no. 206-553-1101; email: kwmyers@u.washington.edu, mailing address: K. Myers, SAFS/UW, Box 355020, Seattle, WA 98195-5020).

New England: Steve Cadrin, Director

As of April 2008, there were 39 members in the district, the same number of members as in 2007. The need for more members and more active member in New England reflects the general initiative to recruit new members in all of AIFRB. Several ideas for expanding membership and engaging more current members were discussed.

Current membership is dominated by Massachusetts and Rhode Island residents, with few members from other New England state. (MA-23, RI-9, ME-3, NH-3, CT-2) The relative number of students is encouraging, but there appear to be problems retaining students to renew their membership as associates, recruiting new members, and keeping emeritus members.

The AIFRB 50th Anniversary Symposium on "The Future of Fisheries Science in North America" held in Seattle was considered a successful initiative. Dick Beamish and Brian Rothschild, conveners of the 50th Anniversary symposium, are considering another international AIFRB symposium and approached the New England district to host the symposium. A similarly successful symposium in New England could be a productive recruiting opportunity, and well worth the efforts of hosting the event.

South Central Great Lakes: Dora R. Passino-Reader, Director

Special Awards Presented: Emeritus scientists Drs. Neal Foster and Dora Passino-Reader, plus research fishery biologist Dr. Edward Roseman and fisheries technician Timothy O'Brien participated as judges of the 50th Annual Southeast Michigan Science Fair held on the campus of Washtenaw Community College on Friday, March 7, 2008. The judges gave special awards from the USGS Great Lakes Science Center and the American Institute of Fishery Research Biologists to projects involving aquatic sciences and environmental issues. Titles of projects recognized by the Science Center included: Chloride Levels of Different Streams with Relation to Road Salting; Effects of Common Pollutants on the Freshwater Plant Elodea; The Truth About Global Warming; Carbon Sequestration Using Iron Fertilizer Phytoplankton; and Is Our Snow Contaminated? Projects recognized by the American Institute of Fisher Research Biologists included: Acid Rain's Effects on Elodea; Aquatic Respiration of Fish; Who Turned on the Light/ Do Warm or Cool Colors Affect Fish Activity?; The Great Barrier Reef: An Underwater Rainbow; and Fish, Environment and Behavior. Awardees received certificates and logo t-shirts.

The annual Southeast Michigan Science Fair is affiliated with the Intel International Science and Engineering Fair. The Southeast Michigan region includes Livinston, Washtenaw, Monroe, Hillsdale, and Lenawee counties. Students in grades 9 through 12 from any school in the region are eligible to enter individual or team projects in the high school division. Students in grades 6, 7 and 8 from any school in the region are eligible to enter individual or team projects in the middle school division.

After leading the District for 12 years, I anticipate passing the gavel to Dr. Edward F. Roseman, USGS, Great Lakes Science Center, Ann Arbor, Michigan.

Treasurer's report from Dr. Neal R. Foster: the District bank account at TCF currently contains \$127.52

Keystone: Joseph W. Rachlin, Director

- 1) Following the Board of Control meeting in San Francisco, CA in 2007, and receipt of the delinquent list, members who were in arrears of their dues for either one or two years were contacted, and requested that they renew their "in good standing" status by paying their arrears and current dues.
- 2) This year's stocking of Alewife into the Bronx River was aborted due to New York State DEC's concern with Viral Hemorrhagic Septicemia (VHS) which resulted in a total ban on the introduction of out of state fish into New York waters. Since once again samples of these fish from Bride's Brook, CT. proved to be negative for this disease, it is hoped that stocking will resume during next spring's spawning run.
 - 3) In addition to regular field activities, several workshops were held, and these were also used to promote AIFRB.
- 4) Two recruitment lunches were hosted by the Keystone District in conjunction with the Tenth Northeastern Natural History Conference at the State Museum in Albany New York on the 17th and 18th of April 2008. All presenters, and audience members, at the Fish and Fisheries Biology sessions were invited, and an announcement was made at the opening of each of these sessions abouth the hosted luncheon.

Arizona and New Mexico: G. Morris Southward, Director

As pointed out in previous reports, most of Arizona and New Mexico is contained in the Sonoran and Chihuahuan deserts. There are no commercial fisheries in these two states. The states are large, and distances between cities is great. Consequently the members of this district do not have meetings such as other districts have. The most active place for fisheries work is New Mexico State University. During the year I contact Drs. Caldwell, Cowley, and Boeing to enquire how their work is progressing and discuss fisheries issues that they encounter. Also, new students are encouraged to join AIFRB. Most of the students do join. However, as was the case this year when those in arrears with their dues were contacted, some of the students have changed their majors and no longer are involved with fisheries work.

The three faculty members, Caldwell, Cowley, and Boeing, continue with their long-term research projects. Preservation of endangered species is critical in these deserts. The area has experienced drought conditions for several years. As has been the case with Emeritus Members in this district, most are content with retirement.

Three Losses

Allan Charles Hartt

Emeritus Fellow

Allen was born November 26, 1922 in Seattle, Washington, and passed away (age 85 years) in Seattle on May 8, 2008, after a lengthy illness. Al was drafted in 1942 and after Officer Candidate School, became a Second Lieutenant in the Army Coast Artillery. After the War, he graduated from the University of Washington (UW) in Fisheries and joined the Fisheries Research Institute (FRI; W.F. Thompson, Director).

From 1948 to 1954, Al's field work included salmon tagging and recovery, adult and juvenile salmonid sampling, red (sockeye) salmon sampling and stream survey flights at Kodiak, Cook Inlet, Chignik, Bristol Bay and Southeast Alaska. From 1955 to 1979, Al was the Project leader of the High Seas Tagging Project. This project was to provide research on the distribution, abundance and migrations of North American Stocks of salmon. These studies were part of a research program coordinated by the International North Pacific Fisheries Commission (INPFC), a joint convention of the United States, Canada and Japan. A second project objective was to determine if the various countries' stocks were fully exploited. This would depend on the extent of intermingling of the three countries' stocks of salmon as determined by tagging along the Aleutian Islands in the North Pacific Ocean.



"Welcome home after 6 months on the high seas, September 2, 1958" left to right: Ben Jones, Al Hartt, Dr. W. F. Thompson Background: The RENOWN, a chartered purse seiner used for high seas salmon tagging, in the U.S. Government (Hiram M. Chittenden) Locks, Seattle; Capt. Berger Hansen and fisherman Wayne Mellroth (lower)

The High Seas Project utilized primarily oversized purse seines as well as surface longlines and a few gillnets. The area studied in the Aleutians is known as the "Birthplace of the Winds" and was considered extremely hazardous in World War II. Today this project would qualify for "The Most Dangerous Catch: or "Tougher in Alaska" TV shows. The tagging studies were conducted in areas without any US Coast Guard helicopters or cutters available at that time.

Al authored and co-authored many INPFC publications about the results of these years of research, and his invaluable high sea salmon tag recovery data were recently archived in a database managed by the North Pacific Anadromous Fish Commission.

Al assisted the Makah Indian nation with their fisheries program from 1980-1984, after he had retired from the Fisheries Research Institute.

Al loved salmon fishing in Puget Sound and steelhead fishing in local rivers and trout fishing in mountain lakes. He played handball, racketball, volleyball and tennis on a regular basis with UW-FRI and faculty staff.

The Christian heritage he honored became the enduring legacy of love he left to his family, friends and faith.

Submitted by Michael Dell, Robert L. Burgner, PhD and Katherine Myers, PhD

Dr. Clark Hubbs - March 15, 1921 - February 3, 2008

It's with great sadness that we share the news that Dr. Clark Hubbs passed away Sunday, February 3. He died at the age of 86, after a battle with cancer, at home in the care of his wife, Cathy, and three children. The Texas Chapter of the American Fisheries Society offers our condolences to Cathy and their whole family, who have been such wonderful friends and colleagues to the Chapter. Clark was born March 15, 1921 and was the second child of noted naturalists Carl and Laura Hubbs. He developed a love for the science of fisheries biology at an early age. His parents paid Clark and his sister and brother five dollars for collecting a new genus and one dollar for collecting a new species. They also paid them five cents for each species collected. Not surprisingly, Clark became an ichthyologist, a scientist who studied fish and truly loved his chosen profession.

During World War II, he served in the army in the 96th Infantry Division Headquarters, including the invasions of Leyte and Okinawa. After the war, he obtained his PhD from Stanford in 1951 under the GI bill. He met his wife of 58 years, Catherine, while on a field trip with the Stanford Natural History Club.

In 1951, Clark Hubbs became an assistant professor of zoology at the University of Texas and subsequently became an associate and then full professor. From 1974 to 1976, he was chairman of the Biology Department, and from 1978 to 1986 he was chairman of the Zoology Department. He was professor emeritus at the time of his death. During his long career, he published more than 300 articles. He was still collecting field data for his studies in January 2008. He was editor of *Copeia*, the journal of the American Society of Ichthyologists and Herpetologists for more than a decade, and a former president of the Texas Chapter of the American Fisheries Society, American Society of Ichthyologists and Herpetologists, the American Institute of Fisheries Research Biologists, the Southwestern Association of Naturalists, Texas Organization for Endangered Species, and the Texas Academy of Science. He was Chair Emeritus Science Committee Hubbs- Sea World Research Institute. He was a tireless supporter of the Texas Academy of Science, Edwards Aquifer, and protection of endangered species. Four different species were named after him.

In addition to Dr. Hubbs many professional accomplishments, he was a great asset to the mission of the Texas Academy of Science. Dr. Hubbs was also a founding member and the only Leader of the Rio Grande Fishes Recovery Team for its 30-year history. Under his leadership, the team was an active force in conservation of fishes in west Texas and southern New Mexico. He was instrumental in furthering fisheries research in Texas and a staunch advocate for preventing extinction of many rare species.

He also played a pivotal role as an expert witness in the litigation of the Edwards Aquifer for the protection of spring flows for endangered species. Dr. Clark Hubbs will be greatly missed, but his legacy will live on in his students, his research and his inspiration for the next generation of conservation scientists. Besides being a brilliant fisheries biologist, it is noteworthy to mention that Dr. Hubbs was a character. As an example, when we were returning from a sampling trip on the Rio Grande, he made me stop at several streams to sample the Western Mosquitofish, one of his favorite fish species for distributional ecology and population structure. I could not determine how he was evaluating what streams he had me stop at, and so I finally asked him. He said he just liked the name of them, such as "Woman Hollering Creek," near San Antonio. He said he just had to sample the fish species in a creek with a name like that. My heart is heavy with sadness, but I also have to smile a little when I remember those times spent with my friend, colleague, and mentor: Dr. Clark Hubbs.

There are many students who have strong feelings about their association with Dr. Clark Hubbs. Here is one of them, from former student Fred Stevens, TAS Executive Secretary: "I owe a great debt to Clark Hubbs. I came to Texas specifically to do graduate work under his direction. During those years in Austin in the 1970s I was a beneficiary of his sharp mind, his integrity, and his absolute commitment to quality scientific work. He always expected the best from his students and would accept nothing less. I will always think of myself as a Hubbs' student. This is one of the deepest and most stable elements of my identity. Hubbs students are not so much members of an academic society as they are members of an extended family. I know that I can never pay back this debt, but I can pay it forward – to the next generation. Service to the Texas Academy of Science is one way for me to accomplish this." Clark Hubbs was preceded in death by his mother, father, and two sisters, Marjorie Anne Hubbs and Frances Miller. He is survived by his wife, Catherine, his brother Earl, daughters Laura Hubbs Tait and Ann Hubbs, son John Hubbs and four grandchildren, Aaron and Aiden Tait, Eric Hubbs, and Adam Weissman as well as hundreds of students, colleagues, and friends. In lieu of flowers, the family suggests donations to the Hubbs-Sea World Research Institute (www.HSWRI.org) or a charity of your choice. Memorial services were held at the Congregational Church and reportedly will be held at numerous scientific meetings. The Texas Chapter of the American Fisheries Society will also provide tribute to Dr. Hubbs in our next Annual Meeting.

Tribute by Ray Mathews

Although Clark died in February, his obituary only recently came to Briefs. Ed.

Philip R. Nelson

NELSON, Phillip R. 90, of Largo, died on July 15, 2008. Born in Tacoma, WA, he came to Florida from Alexandria, VA. He graduated from Stadium High School class of 1937 in Tacoma, WA. He graduated from the University of Washington, Seattle



with a degree in Fishery Science. He carried out research on red salmon on Kodiak Island, AK, shellfish in Chesapeake Bay and later assisted in the administration of research in Washington, DC for the U.S. Fish and Wildlife Service and later for the National Marine Fisheries Service. He was an Army Veteran of World War II, with service in the South Pacific area. He enjoyed fishing, golf and especially traveling. His travels took him to the seven continents, 131 countries and possessions and all the states in the USA. He was a member of the American Fisheries Society, the American Institute of Fishery Research Biologists, Lake Seminole Country Club, American Legion, Old Salt Fishing Club, the Suncoast Camera Club. Survivors include two nephews, Donald M. Grimes Jr. of Manchester, WA and Norman Nelson of Tacoma, WA, a niece, Sue Poler of Tumwater, WA. For guestbook sign-in, go to website www.veteransfuneralcare.com

Hubbs Memorial Committee Report

Chair: Joe Margraf; Members: Frank Panek, Dora Reader, Morris Southward

Recommendation:

A number of potential ideas were put forward. The consensus was to dedicate the first issue of our new journal to Clark Hubbs, and to the degree possible feature papers by students and some of Clark's former students. In each subsequent issue maintain a Clark Hubbs section that would be composed of student papers. Initially, it was suggested the first issue lead-off with a tribute paper to Clark's life, but Copeia published a paper in 2000 chronicling his life. So such a paper in our journal would be duplication.

Does the Public Expect Too Much from Science?

You are welcome to contribute your opinions to these discussions:

1. Does the Public Expect Too Much From Science?

http://blog.epa.gov/blog/2008/07/30/science-wednesday-does-the-public-expect-too-much-from-science/

2. Delusional Reality About West Coast Salmon

http://blog.epa.gov/blog/2008/07/11/realityaboutsalmon/

3. What is a healthy ecosystem?

http://blog.epa.gov/blog/2008/04/23/what-is-a-healthy-ecosystem/

Two Announcements 2010 Federal Marine Policy Fellowship

The California Sea Grant College Program is now accepting applications for the Class of 2010 Dean John A. Knauss Marine Policy Fellowships.

The Knauss Marine Policy Fellowship Program is a National Sea Grant sponsored federal fellows program that provides a unique educational experience to students who have an interest in marine/ocean/Great Lakes resources and in the national policy decisions affecting those resources. The program matches highly qualified graduate students with hosts in the legislative branch, executive branch, or appropriate associations/institutions located in the Washington, D.C. area for a one-year paid fellowship (\$34,000 stipend). An additional \$8,000 will be used to cover mandatory health insurance for fellows, moving expenses, academic degree-related and fellowship-related travel.

The full request for application and application guidelines are available on California Sea Grant's Knauss website at http://www-csgc.ucsd.edu/EDUCATION/KNAUSS/Knauss_current.html

For more detailed information about host offerings, selection process, and the placement process in Washington D.C., please visit the National Sea Grant Knauss site at http://www.seagrant.noaa.gov/knauss/knauss.html.

Timeline

February 23, 2009 – Application materials from each student are due to California Sea Grant (each program sets its own date around this general time).

March, 2009 – Interviews by California Sea Grant staff to select up to six finalists.

April 3, 2009 – Application material from Sea Grant program are due at the National Sea Grant Office by 2:00 pm PDT (5:00 pm EDT).

May 23, 2009 – Sea Grant Programs notified of selection results.

December XX-XX, 2009 – Placement Week (exact dates TBD), selected applicants are required to travel to Washington, D.C., for interviews with potential hosts.

February 1, 2010 – Start of the fellowship.

For more information please contact Shauna Oh at nsgoproposal@seamail.ucsd.edu or 858-534-4440. For those of you considering this program, we would appreciate your notifying her of your intent to apply.

2009 Southern Division AFS Spring Meeting

FIRST CALL FOR PAPERS

15 - 18 January 2009

Royal Sonesta Hotel, New Orleans, LA

Hosted by LA AFS Chapter

Rooms, single or double, are quoted at the government rate of \$131. The deadline for abstract submission is October 24th. Schedule for the Meeting is as follows: Thursday, Technical Committee meetings; Friday, EXCOM and continuing education workshops; and Saturday and Sunday (until noon), Technical Sessions, Symposia, and Posters. Contact: Quenton Fontenot, quenton.fontenot@nicholls.edu

No Good Deed Goes Unpunished!

Black flies surge in Maine's clean rivers Citing environment's gain, state declines to curb the biting bugs

By Beth Daley

Millinocket, Maine - Mainers call the black fly the state bird.

Residents and tourists have long steeled themselves against the flies' annual warm-weather onslaught, sometimes duct-taping pant legs and wearing screened hoods to keep the deceptively small bugs from delivering bloody bites or crawling into seemingly every body crevice. But there are now more black flies in more places in Maine, and the reason may be surprising. It's the success of the environmental movement. Many species of the gnat-sized insects are sticklers for cleanliness When Maine's rivers were filled with contaminants from paper mills and other industries, only the hardiest black flies laid eggs in them. Now, rivers and streams are progressively cleaner, providing ideal breeding ground for the annoying pests. It's an unintended barometer of good ecological health, but Maine officials are adamant they will not mess with nature in any way to provide relief.

The flies have been a pesky nuisance for centuries in New England. Some of the earliest attempts at control took place in New Hampshire in the early 1900s when officials poured diesel oil and kerosene into rivers, according to Adler. Chemical insecticides were later used, but paper mills, raw sewage, and other pollution probably did a better job at knocking the fly down; By the middle of the last century, black fly populations were reduced in polluted Maine rivers and streams.

The federal Clean Water Act, which passed in 1972 and required the cleaning of waterways, helped bring the black fly back, according to entomologists. Today, dozens of species in Maine are thriving in places they were rarely seen in the past, such as around the Penobscot and Kennebec rivers. Scientists say there are black flies in places they haven't been before. And in places where they were, there are even more.

"We may still have the same number of species, but before, their distribution was limited," said Jim Dill, pest management specialist with the University of Maine Cooperative Extension. "People tell us they are more abundant or they say they are nastier biters."

Some states, such as Pennsylvania, heavily control black flies. Officials there spend about \$6 million a year treating 47 rivers and streams with a bacteria whose naturally occurring toxin kills black fly and mosquito larvae. Pennsylvania officials say the bacteria, called Bti, are not harmful to humans, mammals, birds, fish, plants, and most aquatic organisms.

Maine officials say they won't use it, however, the rivers were polluted enough in the past, and officials refuse to put anything else in them unless it's to solve a human health crisis. They say trout and birds feed on black flies, so killing fly larvae could have ripple effects on wildlife. And Bti kill other fly species that are part of a healthy ecosystem.

"We do not favor anything that is toxic to one organism because we often find out down the road they are toxic to others," said David Littell, commissioner of the Maine Department of Environmental Protection.

To be sure, there are some people who are downright happy about the fly population increase. Members of the Maine Blackfly Breeder's Association in Machias are even taking credit for it. Organizers of the tongue-in-cheek organization, whose motto is "We breed 'em you feed 'em," say they are working to breed black flies with fireflies so the flies can be active at night. The group holds an annual convention and raises money for local charities.

"We are ecstatic," said Marlyn Dowling, who calls herself the director of research and development for the association. She and Holly Garner-Jackson, the marketing director, said people have a choice: polluted rivers and not black flies, or clean rivers and black flies. People "should roll up their sleeves to feed the little darlings," Dowling said. "They are defenders of the wilderness."

From: The Boston Globe, boston.com, June 23, 2008

Review: The intertwined tale of fishing and Gloucester

By Rae Francoeur/North Shore Book Notes

The Last Fish Tale: The Fate of the Atlantic and Survival in Gloucester, America's Oldest Fishing Port and Most Original Town

By Mark Kurlansky. Ballantine Books, New York, 2008. 269 pages. \$25.

The title of Mark Kurlanksy's new book, "The Last Fish Tale," refers to a story people tell each other in Gloucester. "It's going to work out all right. We've had hard times before." Gus Foote, a Gloucester city councilman and former fisherman, doesn't think it's a fish tale. "The fishing industry has been dead many times," he said. It will come back.

Gloucester banks on Foote's optimism. The highly valued waterfront real estate has been zoned for commercial marine activities only; no hotels or tourist-related structures allowed. While neighboring seaside communities have made the transition from fishing to tourism, Gloucester holds firm. The existing working waterfront — a mix of overgrown empty lots, piers, auction houses, packing houses, seafood restaurants and other fishing industry related structures — feels a bit like Gloucester holding its breath, waiting for the tide to turn. The waterfront's disposition, writes Kurlansky, is the central controversy in Gloucester today.

Kurlansky wrote "Cod," "Salt," and "The Big Oyster." "The Last Fish Tale" makes good use of his accumulated expertise. It's a disciplined overview of Gloucester history, culture and characters as they relate to the city's fishing activities. Whether Kurlansky writes about the thriving arts community or defunct Dogtown, he makes sure to link to fishing. Toward the end of the book Kurlansky details the quotas and strictly enforced regulations that strip the very freedoms that compelled men to fish to begin with. Every move the fishermen make while working is scrutinized by the government.

Gloucester's fleet is the second largest in New England and 10th largest in the United States, with 500 fishermen still active. Free enterprise calls for ingenuity, regardless of the commercial activity. Fisherman who chose to adapt have survived, though Kurlansky makes it very clear that it's not easy and it's not all Gloucester's fault. In 1900, writes Kurlansky, almost all wage earners had some tie to the fishing industry. By 1911, Gloucester fishermen united with other regions to demand that Congress ban the powerful beam trawlers that scraped the ocean's floor and destroyed immature fish. They said it was "the greatest danger" the fisheries had ever faced. Their demands were ignored. Fishermen, of course, understand danger. Between 1830 and 1900, 3,800 men and 670 schooners were lost at sea.

Kurlansky is thoroughly charmed by Gloucester. The title calls Gloucester America's "most original town," after all. Kurlansky loves it that a fishing community has its own poet laureate and he made sure to include recently deceased poet Vincent Ferrini's thoughts in his examination of the city's attitudes about fishing.

He wrote an entire chapter, as well, on the greasy pole event that's part of St. Peter's festival. Pole walkers "come from families that work in what is widely recognized in the United States and most other countries as the most dangerous job — commercial fishing — they are undeterred by the numerous ways in which pole walking can cause serious injuries, broken ribs being the most common." Kurlansky attributes a tradition of bravery as the enabler. That may be a bit of a stretch. He's aware of the heavy drinking that goes on beforehand, emboldening these young men to risk their necks. Otherwise, Kurlansky seems to have kept enchantment in check. He seems to have presented a credible examination of the volatile, controversial issue of Gloucester's future.

Rae Francoeur is an editor and writer. She can be reached at rae.francoeur@verizon.net.

From: Amesbury (MA) News, June 17, 2008 Thanks to Bernie Skud for this contribution

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BRIEFS, the newsletter of the American Institute of Fishery Research Biologists, is published six times a year. It is intended to communicate the professional activities and accomplishments of the Institute, its District, and Members; the results of research; the effects of management; unusual biological events; matters affecting the profession; political problems; and other matters of importance to the fishery community. Comments and contributions should be sent to the Editor, Dr. Gene R. Huntsman, 205 Blades Road, Havelock NC 28532, feeshdr@embarqmail.com Subscription \$30 a year to Institutions and Non-Members. Officers- Richard Beamish, Pacific Biological Station, 3190 Hammond Bay Road, Nanaimo BC V9R5K6, beamishr@pac.dfo-mpo.gc.ca -President; Kathryn A. Dickson, Dept. of Biological Science, California State University Fullerton, Fullerton, C4 92834-6850, kdickson@exchange.fullerton.edu - Secretary; Allen Shimada, NMFS, Office of Science and Technology, 1315 East West Highway, Silver Spring, MD 20910, allen.shimada@noaa.gov -Treasurer. ISSN-8755-0075

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SEPTEMBER-OCTOBER 2008

Presidents Message

It is impressive how busy people find time to help organizations and colleagues. One of my first impressions as President of AIFRB is how many people help with the organization. Everyone I asked to continue in their job agreed, including those that after many years of service are looking for a replacement. Barbara Warkentine is taking a break after her many years as our Secretary. However, she will continue to help me and our new secretary, Kathryn Dickson, get started. Linda Jones, our Past President, will continue to develop our web page, which is our priority after the book on *The Future of Fisheries Science in North America* is published and our second brochure "Reasons to join the AIFRB" is finished.

Jack Helle (see photo) retired in 2008. In his retirement he will head up our new service that will provide a friendly, presubmission review of papers destined for scientific journals. The service is free to all members, but is designed to support our younger members. Jack will particularly rely on our emeritus members to get speedy turnaround times. Anyone who would like to help can email Jack at Jack.Helle@noaa.gov.

I just returned from the Sea Fisheries Institute (Morski Instytut Rybacki) in Gdynia, Poland. It had been a while since I spent time talking about European fishing issues. Species and issues may differ, but it is clear that the challenges facing fisheries science are similar. Understanding what is happening to fished populations has always been difficult. If past difficulties are an index of future complexities, managers of fisheries need to prepare for more surprises. It is a time for fisheries professionals to work together. Members of AIFRB can make a difference by using our abilities and experience to help focus attention on the key issues in freshwater and marine fisheries science. Everyone needs help and AIFRB has the collective ability to provide good advice and to ensure that fisheries science is given the support needed to manage fisheries while protecting fish and their ecosystems. *Dick Beamish*

Ed. Note: Our self-effacing president has so far resisted my repeated requests for a photo. For those who don't know Dick see page 5 of this issue for a short biography.

Thompson Award to Mary E. Hunsicker

Mary E. Hunsicker, a recent graduate of Stony Brook University, has won the W.F. Thompson Award for the best student paper published in 2006. Her paper, co-authored with Dr. Timothy E. Essington, is entitled "Size structured patterns of piscivory of the longfin inshore squid (*Loligo pealeii*) in the mid-Atlantic continental shelf ecosystem". It was published in the Canadian journal of Fisheries and Aquatic Sciences, Volume 63, Number 4, pages 754-765. One of the reviewers of her paper wrote, "The paper represents one of the best examples of how to study the diet of an exploited marine species, and it revealed a significant new and complex facet of coastal marine ecosystems – the changing trophic position of squid as a function of ontogeny, and prey availability. This work will eventually have a great influence on our ability to understand and model such ecosystems. It also addressed the emerging issue of size-structured trophic interactions, and thus represents a more fundamental contribution to ecology."

A total of 11 papers were submitted for consideration for this award, and 26 scientists reviewed one or more these. Most of the papers were reviewed by three to five people. All of the submissions were high-quality papers published in prestigious journals, and most of them were praised by the reviewers.

Mary Hunsicker received her B.S. degree in Biology at Lafayette College in Easton, Pennsylvania, in 1997 and her M.S. degree in Marine and Environmental Sciences at Starte Basel, University in 2004. She is currently a Ph.D. condidate at the University of the Condidate of of the Condida



Mary Hunsicker and Tim Essington proudly display certificate signifying the W.F. Thompson Award for a paper published in 2006.

Stony Brook University in 2004. She is currently a Ph.D. candidate at the University of Washington, where her major professor is Dr. Timothy E. Essington. In addition to the paper that won the award, Mary and Dr. Essington have written a complementary

paper that will be published in the Canadian Journal of Fisheries and Aquatic Sciences this autumn. This paper further explores the predatory role of the longfin inshore squid using a bioenergetics approach. Mary has also co-authored a paper in Ecology, Volume 89, Number 3, and has several others in various stages of preparation. She recently received a North Pacific Research Board Graduate Student Research Award to continue her squid research in the eastern Bering Sea. Her interests include hiking, camping, running, and exploring the Pacific Northwest.

Ms. Hunsicker responded to the award: "I would like to thank the AIFRB for nominating me for this award. It is a great honor to have my paper recognized by this prestigious group of fishery scientists. I also thank my co-author and advisor, Timothy Essington, for his help and support on this paper."

Ms. Hunsicker received from the AIFRB a certificate signifying the award, \$1000 in cash, and a one year membership in the AIFRB.

Send Nominations Now! W.F. Thompson Award for Best Student Paper Published in 2007

Nominations are now open for the W.F. Thompson Award, which is given by the American Institute of Fishery Research Biologists (AIFRB) to recognize the "best" student paper in fisheries science published during the year in question (2007 in this case). The award will consist of a check for \$1000. The requirements for eligibility are as follows: 1. The paper must be based on research performed while the student was a candidate for a bachelor's, master's, or Ph.D. degree at a college or university in the Western Hemisphere; 2. The paper must be in English; 3. The student must be the senior author of the paper. Nominations may be submitted by professors or other mentors, associates of the students, or by the students themselves. The deadline for receipt of nominations is January 31, 2009. The nominations should be sent to the Chairman of the W.F. Thompson Award Committee, Dr. William H. Bayliff, Inter-American Tropical Tuna Commission, 8604 La Jolla Shores Drive, La Jolla, California 92037-1508, Email wbayliff@iattc.org. Each nomination must be accompanied by a copy of the paper (unless it is easily accessible on the internet) and a resume. The papers will be judged by knowledgeable reviewers selected by the Chairman and the members of his committee, on the basis of contribution to fisheries science, originality and presentation.

Board Meets, Institute Marches On

AIFRB Board Meeting 16-17 August 2008 Ottawa, Canada

Draft Minutes – Much Abridged See July-August Briefs for most reports

Attendees: Dick Beamish, Incoming President; Steve Cadrin, New England District Director; Kathy Dickson, Incoming Secretary; Marty Golden, Recruitment-Retention Committee Chair; Peter Haaker, Southern California District Director; Jack Helle, Past President; Linda Jones, President; Tom Keegan, Membership Committee Chair; Joe Margraf, Northern Alaska District Director; Joe Rachlin, Keystone District Director; Dick Schaefer, Past President; Allen Shimada, Treasurer; Morris Southward, Arizona-New Mexico District Director; Doug Vaughan, AFS-AIFRB Liaison (Sunday attendance only); Barbara Warkentine, Outgoing Secretary.

President's Report (Jones): (See July-August Briefs)

Secretary's Report (Warkentine): Secretary Barbara Warkentine expressed her thanks to District Director Steve Cadrin for filling in for her during the 2007 Board meeting. She also thanked all members of the Board for their support over the ten years that she had performed the duties of Secretary. Barbara welcomed AIFRB's new Secretary Kathy Dickson and has promised to give her all the assistance needed to make the transition as smooth as possible.

Treasurer's Report (Shimada): (a) State of the Treasury – A budget spreadsheet (Statement of Cash Receipts and Cash Disbursements, 9/1/07-8/30/08) was distributed. The 50th Anniversary symposium had brought in significant funds, It was noted that donors were sent letters of thanks at the time of the donation and were invited to attend the symposium, and that they have been recognized on the AIFRB web site and will be acknowledged in the symposium publication. Shimada noted that the increase in Founders/Capital/Unrestricted Funds was due primarily to \$10,000 for the Kasahara Award. The Secretary's expense was for the award plaques. Shimada stated that he will provide the final Treasurer's Report in October; (b) Outlook for 2008-2009 – Shimada is looking for cost savings where he can. Jones asked about using investment interest for awards. Beamish mentioned plans for another AIFRB symposium in 2-3 years, and additional discussion of this symposium was moved to Old

Business, Update on Proceedings Publication. The possibility of corporate sponsorship of the symposium was discussed briefly. The Treasurer's Report was accepted (A motion by District Director Joe Rachlin to accept the Treasurer's Report was seconded and unanimously approved by the Board.)

Membership Committee (Keegan): (a) A change in the Membership Committee was noted to include Kathy Dickson, the new secretary, in place of Barbara Warkentine; (b) Brochure – Copies of the new AIFRB brochure were distributed by Keegan who solicited comments. The new brochure will be translated into Spanish; (c) Recommendations and plans for 2009 – Beamish volunteered to develop an additional brochure focused on "Why become a member of AIFRB?" The Board was supportive of this idea and noted that the content should also be posted on the web site. Some suggestions were made describing the "value added" of membership in AIFRB versus AFS, student research awards, the new manuscript pre-review service, ability to provide an independent scientific perspective on various fishery related issues, etc; (d) Delinquent members - 68 members are currently in arrears (of 500 total). The importance of personal contact with members in arrears was noted; (e) Recruitment and retention of members - The Board discussed the issue of whether members facing financial hardship (e.g., early career individuals, some emeriti). Discussion centered on the benefits of being a member versus how much of a hardship dues represent versus commitment level. Margraf moved that the annual dues be waived for new and existing emeritus members; Director Rachlin proposed a friendly amendment to change the motion to "To retain all members currently delinquent as members in good standing". The motion carried. The Board should send a annual letter summarizing AIFRB accomplishments during the year, and to solicit donations or contributions to specific funds (e.g., specific awards) to highlight reasons to become more involved and to renew membership; (f) Discussion then centered on ways to increase participation and contributions of emeriti having an emeritus BOC member, a special "emeritus column" or "invited retrospectives" on specific issues in Briefs, encouraging participation in the manuscript pre-review service, taking advantage of emeriti's institutional memory of AIFRB and previous experience in the field, etc. This led to further discussions about recruitment and about adding a student and an emeritus members of the Board, resulting in the following action items:

Action Item #1: To increase involvement of emeritus members. (1) Form an ad hoc committee to develop plans with concrete suggestions to increase emeritus involvement to benefit both the emeritus member and AIFRB. This committee will include at least one Board member as well as non-board members, and will report back to the Board in approximately six months, at the semi-annual conference call; (2) A suggestion was made to add the AIFRB purpose and mission statement, "The rank of emeritus is reserved for members who have obtained the age of 62, are in good standing, and have retired from professional employment in fishery biology. These individuals shall serve as a resource for AIFRB's active fishery research biologists." (3) Some issues for the committee to consider – Should an emeritus member be included as an ex officio member of the BOC? How can AIFRB capitalize on the knowledge and experience of emeritus members? How to maintain lines of communication with emeriti?

Action Item #2: To increase involvement of students and young professionals. (1) Form an ad hoc committee, the students and young professionals committee, composed of at least one AIFRB member and to involve recent winners of the AIFRB awards for students and young professionals. This committee is to meet and, within the next 6 months, send a report to the Membership Committee Chair (Keegan) who will bring the recommendations to the Board at the next Board meeting; (2) BOC members are to look through the names of recent award winners and send contact information of any recommended for the ad hoc committee to President Beamish by the end of August; (3) Some issues for the committee to consider – How to distinguish AIFRB from AFS, benefits of AIFRB membership, how to engage the average student, keeping abreast of new scientific advancements that affect fishery science (e.g., molecular biology and genetics) and how to involve more of these types of scientists, should there be 1 or 3 student representatives on the Board and, if so, what should be the specific objectives of these Board members?

It was acknowledged that having student member(s) of the Board will necessitate additional funding for meeting attendance, but Keegan knows of some resources specifically for student assistance.

Both ad hoc committees should refer to the recruitment document prepared by Marty Golden some years ago.

Report of W.F. Thompson Award Committee (Jones for Bayliff): (a) The committee recommended the following paper for the 2006 W.F. Thompson Award – Hunsicker, Mary E., and Timothy E. Essington. 2006. Size structured patters of piscivory of the longfin inshore squid (*Loligo pealeii*) in the mid-Atlantic continental shelf ecosystem. *Canadian Journal of Fisheries and Aquatic Science* 63(4):754-765; (b) The Board approved the recommendation by the 2006 W.F. Thompson Committee for the 2006 award; (c) The Board approved the revisions to qualifications (#1-12, but not #13) as proposed by the Committee. (*See July-August Briefs*)

Report of Research Assistance Award Committee (Jones for Ault): Two AIFRB Associate Members – Ms. Talia Bigelow, University of Massachusetts at Dartmouth, and Mr. J. Marcus Drymon, University of South Alabama, received \$500 research assistance awards to attend the AFS meeting. Mr. Drymon's award was the Fredin Award.

Report of Outstanding Achievement Award Committee (Jones for Fox): Nominations. The Board unanimously approved the recommendation of Ray Hilborn for the 2009 Outstanding Achievement Award (Individual). The Board unanimously approved the recommendation of the North Pacific Research Board for the 2009 Outstanding Achievement Award (Group).

Distinguished Service Award (Jones): The Board unanimously approved the recommendation to grant the 2009 Distinguished Service Award to Doug Vaughan for his role in organizing symposia, his efforts in producing posters, and his many other forms of support of AIFRB.

Report of Kasahara Award Committee (Cadrin): The Kasahara Award is given every two years "to recognize the Institute's most promising scientists who, while early in their research careers, show exceptional potential for leadership at the frontiers of scientific knowledge" (AIFRB web site). Cadrin solicited nominations via district directors for the next award.

Report on Website (Jones): (a) A new host for the website, Network Solutions, was found and contracted because of difficulties previously in being able to update pages and links efficiently and frequently. The website was up as of early August, but it still needs some updating and editing. Any suggestions or changes should be sent to Jones as webmaster (chair of the ad hoc web page committee). The committee may need to continue or be reconstituted in order to maintain the web page; (b) Links to District web pages will be developed soon. The District Directors will be responsible for keeping their web pages up to date, and for including pictures of people and events. The ad hoc web page committee will develop guidelines for formatting of the District pages; (c) The plan is for the web page eventually to have links to all Board meeting minutes, *Briefs*, a list of all AIFRB-sponsored symposia, symposium abstracts, AIFRB awards and past winners, etc. (i.e., historical archives as well as present information). Beamish has been involved in producing videos on Canadian fisheries scientists and their career trajectories, and suggested that the AIFRB web site could have links to these and could include similar videos of AIFRB members. It would be useful to have synopses of ongoing projects by AIFRB members, with photos. Photos can also be uploaded, but there needs to be a process in place to do so, to consider copyright information, and potentially to use photos in other publications (e.g., brochures); (d) It is possible to have contact information for the membership online, and to have individuals or district directors update the information as needed, but this will require members to individually approve the posting of this information. With the next dues solicitation, we should ask for current contact information and email address, and ask for approval to post it in this way.

Ad hoc committee reports: Clark Hubbs Memorial Committee (Rachlin for Margraf): Secretary Dickson's motion that the Associate Research Award be renamed "The Clark Hubbs Associate Research Award" was seconded and unanimously approved by the Board. The AIFRB President will send a letter to Clark's wife Kathy informing her of this action.

Old Business: (a) Update on proceedings publication from Celebration 2006 (Beamish) – The 50th Anniversary Symposium volume will be published as a book by Springer with 34 papers, and proofs should be ready by the end of 2008. NMFS has committed to purchase 400 and DFO Canada has committed to 100-150. The working title of the 2nd international symposium is "Relative importance of fishing and the environment in the regulation of fish population abundance." It will be a 3-day symposium held on the east coast, possibly in New Bedford, in 2011. Beamish is working with Brian Rothschild of the New England District on symposium plans. Keegan suggested advertising and recruiting contributors from Mexico at the 2nd annual Mexican fisheries symposium to be held in Ensenada in May 2009. It was suggested that IATTC and ICCAT should be involved as well. The Board formally approved moving ahead with a second symposium. Some lessons learned from the first symposium: (1) need a list of speakers who can be counted on to contribute to the published volume; (2) need one individual (not a symposium organizer) to be in charge of the associated poster session; (3) it is possible to obtain significant support for symposia; they can be a source of funds for Institute activities; (b) <u>Update on e-Journal</u> (update by Jones for Friedland) – Instructions to authors are completed and associate editors are in place, but the web site still needs to be set up and they are waiting for the submission of the first paper. (c) Update on peer review of manuscripts (Helle) – It is important for district directors to get the word out about this service and also recruit members to do the reviews. The turn-around must be rapid for these. It was suggested that there be a memo in *Briefs* soliciting members willing to serve as reviewers. They should send names and areas of expertise to Jack Helle, as should district directors for any members they recruit for this activity, as soon as possible. A memo should be sent to NMFS Science Centers' directors or deputy directors to make them aware of this service for AIFRB members. Acknowledgement of AIFRB pre-review should be included in the paper. Jack Helle will coordinate the process centrally and develop guidelines.

Report from Capital Management Committee (Shimada): The balance decreased in the past year due to conditions in the stock market and economy. Also, \$5000 was transferred to awards. The plan is to transfer the account from Columbus, Ohio, to Florida so that John Jolley, Capital Management Committee member can take over oversight of the account.

Founders Fund (Shimada): There was \$1,680 income in donations during FY07-08.

New Business: (a) Review of reimbursement at annual Board meetings (Shimada) – 8 Board members requested partial reimbursement for expenses of attending the meeting. Each individual is to send receipts to Shimada for reimbursement; (b) Installation of new President. Jones passed the gavel to Beamish. Jones was thanked for all of her work as President, and Beamish was congratulated. Beamish commented on his goals for AIFRB. There was discussion of AIFRB taking a leadership role in providing a scientific perspective and research-based information on important issues related to fisheries conservation, as it can serve as an independent organization to make statements that may influence policy; (c) Next meeting plans: the 2009 Board meeting will be August 29-30 in Nashville, TN

Appointments: (a) Regional Directors for 2008-2009: Frank Panek, Northeast and Eastern Canada; Tom Schmidt, Southeast and E. Mexico; Edward Roseman, Central and Mid Canada; Peter Haaker, Southwest and Mexico; Kate Myers, Northwest; Bruce Wing, Alaska and Western Canada; (b) Officers and/or Interim Directors: Beamish reappointed Allen Shimada as Treasurer and appointed Kathryn Dickson as Secretary; (c) Standing Committee Chairs: Keegan agreed to continue as Membership Committee Chair. Beamish will contact other committee chairs and ask if they are willing to continue to serve; (d) Special ad hoc Committee Chairs: Jones agreed to continue to chair the web page committee. Beamish will appoint members of the new committees on Emeritus members and Students and Young Professionals, and inform each committee of the goals and objectives (see item 8e).

Talia Bigelow, one of two 2008 Student Associate Research Award Winners

Talia Bigelow is a graduate student of Steven Cadrin (UMass-Dartmouth), Northeast Director.

Remember RA awards can be used for research travel as well as meetings.

Jerry Ault and his committee are always seeking nominees!

jault@rsmas.miami.edu





Tom Keegan, AIFRB Distinguished Service Award recipient for 2007

Tom Keegan accepts award certificate from now past-president Linda Jones at the AIFRB reception, Ottawa, Ontario, August 17, 2008.

Meet Our New President Dr. Richard J. Beamish, OBC, CM, Ph.D, FRSC

Fisheries and Oceans Canada Pacific Biological Station Nanaimo, British Columbia, Canada, V9T 6N7 Phone: (250) 756-7029; Fax: (250) 756-7053

Dr. Richard Beamish, O.B.C., C.M., Ph.D., F.R.S., is the Senior Scientist at the Pacific Biological Station in Nanaimo, B.C. Dick Beamish was born in 1942 in Toronto, Canada, and started his career as a fisheries biologist in the 1960s. He finished his Ph.D. at the University of Toronto in 1970 and went directly to Woods Hole Oceanographic Institute for a Post Doctoral

Fellowship with Dick Backus. He then worked at the Freshwater Institute in Winnipeg for a few years, ending up at the Pacific Biological Station in Nanaimo, British Columbia in the mid-1970s. He was the Head of the Groundfish Section from 1977-1979 and Director from 1980-1993.

He is an Editor for Transactions of the American Fisheries Society, a member of the Science Panel for the North Pacific Research Board, Chairman of the Scientific Steering Committee for the North Pacific Anadromous Fish Commission, an active member of PICES, a member of the Committee for Scientific Cooperation for the Pacific Salmon Commission, the Department's representative on the Pacific Fisheries Resource Conservation Council, one of two scientists on the Deputy Ministers' Science Management Board, a former Canadian Commissioner for the International Pacific Halibut Commission and a Professor at Vancouver Island University.

Dr. Beamish has been honoured with a number of awards including the Order of Canada and the Order of British Columbia. He was made a Fellow of the Royal Society of Canada and recently became the first foreign scientist to be made an honorary member of the fisheries laboratory TINRO in Vladivostok, Russia. He has published over 350 articles with about half in peer reviewed journals.

His research interests have included the discovery of acid rain, age determination and the discovery of the longevity of some of our Pacific fish species, the identification of new lamprey species and the evolutionary relationship between these species, and the effects of climate on fish populations. He was one of the first scientists to write about climate regimes and regime shifts.

Dick is married to Ann and has two daughters, Jennifer and Heather. He is an avid gardener with a large collection of rhododendrons and Japanese maples. As well, he enjoys making chocolates and playing rugby.

Member Losses

Norman Abramson, September 2008 Carl Bond, November 12, 2007 Kingsley G. Weber, August, 2008 And well known non-member David Cushing, March 14, 2008

David Cushing, March 14, 1920 - March 14, 2008

A Personal Mini-Memoir By Brian J. Rothschild

David Cushing was a giant in his field.

A sense of how his life temporally intersected with a changing world relates to his youth. He and his parents spent summers in Brittany. He recalled watching a fleet of sail-powered French tuna trollers tacking back and forth as they returned to port. Suddenly one of the trollers broke away from the tacking fleet and headed directly to port. This was one of the first fishing boats to be equipped with a steam engine.

David was a founder of fishery oceanography. He was a person of considerable grace and erudition. From many conversations I recall rich memories of J. Z. Yong, his leaving Oxford to go off and fight the war, his being sunk on a troop transport in the Channel, his shooting down of an enemy plane, his landing with the British troops at Juno or Sword Beach near Ouistreham, and ending up in Italy where he had opportunities from time to time to wander among the book sellers and art dealers. After World War II he graduated from Oxford and then went to MAFF in Lowestoft. He had great love for his work and little enthusiasm for administrators, even though he was to become one himself.

His recollection of the war sometimes focused on the town in Brittany where he and his parents vacationed when he was a boy. He recounted the story of the retreating German soldiers who shot the town's mayor as revenge for the mayor's leadership in the resistance.

All of this is recalled from conversations, but there may be some inaccuracies owing to my memory. But one gets the picture, a man destined for a distinguished career, rooted in erudition and scholarship, and tempered by the experiences of war.

When I actually met David, I think it was in Honolulu in the 1970s, he had a worldwide reputation as a first rate scientist. We crossed paths a number of times as he and I met at various places around the world. David's tremendous strength of character and powerful gentleness tended to be suppressed by his advanced knowledge and intense interest in many fields. I recall him holding forth on several occasions on a variety of topics such as the future of the British monetary system and on the works of Turner as they were displayed in Norwich.

But science was his strength. When David investigated a problem it was not in any narrow sense. His early works on herring explored not only many aspects of the life of herring, but extended in a powerful way, for the time, to the environment in which the herring lived. David was in fact one of the pioneers in the study of the "productivity of the sea". His studies of plankton and the influence of the ocean environment were indeed prescient. He wrote several important books and was the founding editor of the Journal of Plankton Research.

David enjoyed traveling with his wife Diana in their caravan all over the British Isles and continental Europe. It seemed like there was not an interesting place that he had not been. His fluent French stood him well. He could make an excellent gin and tonic, with real quinine water, of course. He enjoyed good wine and food and would have considered this observation by itself to be a good epitaph.

We worked closely together in developing the Global Ocean Ecosystem Dynamics Program or GLOBEC, as it was known. David along with a few others played a key role in the development of GLOBEC. Actually, David's first involvement was in the precursor to GLOBEC, REX, or the "recruitment experiment", where under Mike Reeves' instigation, he and I laid the groundwork for REX. REX set the stage for International GLOBEC. David was instrumental in laying an important scientific foundation for GLOBEC when he chaired the first meeting of the international GLOBEC working group at St John's College, Cambridge University. The meeting concerned "population dynamics and physical variability". David had a penchant for creating interesting and memorable names. He called population dynamics and physical oceanography Fizzy Pop, and Fizzy Pop became a standard name for physical and biological interactions, a main legacy for GLOBEC.

We were involved with others in creating the ICES GLOBEC cod and climate program. It all started in Bergen. David, along with 20 others*, was right there. We were staying in a small hotel about a mile down the hill from the Havforskningsinstituttet. It was January. It was about 8:30 in the morning—bitter cold and dark. I had pneumonia. There was about a foot of snow on the ground. David cheered me on as I miserably trudged up the hill spewing pneumococcal bacilli, seemingly contaminating the entire Bergen atmosphere—but we convened our meeting and initiated the cod and climate program.

When David nominally retired in the mid 1990s, Bob Dickson organized a dinner at John Wood's club in London. Besides David and me, Trevor Platt, Bob Dickson, John Shepherd, Mike Fasham, Keith Brander, Nick McCave, and John Wood were in attendance. We began our dinner with sea bass with fresh fennel, followed by roast grouse. The food was accompanied by a Pouilly Fume, Chateau Montrose, and a Chateau Chasse Spleen. David would have appreciated my sharing with you the menu and the participants.

One time we took a memorable journey. David met me at Heathrow. We drove to Cambridge to visit old friend John Gulland who was on his death bed, watching a football match. We proceeded to Cornhill on the Tweed, near David's ancestral home. We stayed at an inn that had a guest book where guests could record the number and weight of salmon that they caught on the Tweed. We had mutton for dinner. The next morning we passed into Scotland, traversing mile after mile of one-time forests that had become sheep pastures, to arrive at a meeting, whose purpose I have forgotten except to say that it was in Oban and the whiskey was good.

Anyhow, David had a full life. He never took anything that he did not return. If he could speak to us now, he probably would repeat, as he sometimes did, the line from Andrew Marvell's poem To His Coy Mistress, "Had we but world enough, and time".

*Ray Beverton UK, Johan Blindheim NOR, Keith Brander UK, Erik Buch DEN, David Cushing UK, Bogi Hansen DEN, Henk Heessen NETH, John Hislop UK, Holger Hovgaard DEN, Alan Laurec FR, G. Luka USSR, Eyvind Martinsen NOR, Don Olson US, Tom Osborn US, Brian Rothschild US, Fred Serchuck US, Valery Serebryakov USSR, Svein Sundby NOR, Knut Sunnanaa NOR, Bjorn Aadlandsvik NOR

Thanks to Brian for this delightful, personal recounting. Ed

R/V Bell M. Shimada NOAA and VT Halter Marine Launch Fourth Fisheries Survey Vessel

NOAA on September 29, 2008 launched the fourth of a series of new fisheries survey vessels designed to study fish quietly without altering their behavior. Moments before the ship was launched into the Escatawpa River, *Bell M. Shimada* was christened by her sponsor, Susan E. Lautenbacher, an educator and wife of retired Navy Vice Admiral Conrad C. Lautenbacher Jr., Under Secretary of Commerce for Oceans and Atmosphere and NOAA administrator.

The vessel is the fourth of the same class designed to meet NOAA's Fisheries Service specific data collection requirements and the new standards for a low acoustic signature set by the International Council for Exploration of the Seas. The 208-ft. *Bell M. Shimada* and her sister ships were built for NOAA by VT Halter Marine Inc., in Moss Point, Miss., as part of the Department of Commerce and NOAA fleet replacement strategy to provide world-class, state-of-the-art platforms for U.S. scientists.

"Once *Bell M. Shimada* goes into service, NOAA will have the latest fisheries research technologies operating on the East, West, Gulf, and Alaskan coasts," said Vice Admiral Lautenbacher. "This will ensure we have the most accurate data on the nation's commercial fisheries to make the best ecosystem-based management decisions. Today's christening and launch event is a major milestone toward achieving that goal."

Bell M. Shimada will be homeported on the West Coast. Her primary objective 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 to southern California. The ship will also observe weather, sea state, and other environmental conditions, conduct habitat assessments, and survey marine mammal, sea turtle, and marine bird populations.

Bell M. Shimada was named by a team of students from Marina High School in Monterey, Calif., who won a regional NOAA contest to name the ship and subsequently participated in her keel laying ceremony in June 2007. The contest was an educational initiative to help students learn more about their region's marine and coastal environment as well as to generate a greater interest in scientific studies.

The ship's namesake was known for his contributions to the study of tropical Pacific tuna stocks, which were important to the development of West Coast commercial fisheries following World War II. Dr. Shimada and his colleagues at Pacific Fisheries Oceanic Investigations - Honolulu Laboratory were among the first to study the population dynamics of tunas and the oceanography affecting their abundance and distribution. Shimada joined the laboratory in 1948 and in 1952 moved to the Inter-American Tropical Tuna Commission in La Jolla, Calif. Dr. Shimada and fellow commission scientist Townsend Cromwell were lost in a plane crash in June 1958. Shimada Seamount in the eastern equatorial Pacific is named in his memory. Dr. Shimada's son, Allen, is currently a fisheries scientist with NOAA.

How Goes the Left Coast: Lower 48?

Status of Pacific Council-Managed Fish Stocks

Salmon

Salmon stocks fluctuate naturally from year to year. Stocks that are normally healthy can have low return years, and depressed stocks can have high return years. Natural stocks that are generally considered healthy include Washington Coastal fall Chinook, Columbia River summer Chinook, Lewis River wild fall Chinook, Oregon Coastal Chinook, Washington Coastal coho, and Puget Sound coho. Klamath River fall Chinook are generally healthy, but highly variable, and contain a substantial hatchery component. Stocks that have shown recent upward trends include Snake River spring Chinook, Snake River fall Chinook, Sacramento Winter Chinook, Central Valley spring Chinook, and Oregon Coastal Natural coho.

Natural stocks that continue to be depressed include Puget Sound Chinook, Lower Columbia River natural tule Chinook, Columbia River upriver spring Chinook, California coastal Chinook, Lower Columbia River natural coho, and California Central Coastal coho. Sacramento River fall Chinook are largely hatchery origin, but they can fluctuate widely, as occurred in 2008. Because fisheries depend heavily on hatchery stocks, their status is often the most visible indicator of overall abundance from year to year. However, the status of natural stocks allows access to surplus hatchery fish in most years, and their status determines the long-term viability of the fisheries.

Highly Migratory Species

The Council manages tunas (north Pacific albacore, yellowfin, bigeye, skipjack, and northern bluefin); sharks (common thresher, pelagic thresher, bigeye thresher, shortfin mako, and blue); billfish/swordfish (striped marlin and Pacific swordfish); and dorado (also known as dolphin fish and mahi mahi). Most highly migratory species are targeted by international fisheries and managed through international agreements.

Albacore tuna – US west coast vessels catch 17% of the north Pacific albacore tuna catch. They are also caught by Canada, Mexico, Japan, and Taiwan. Albacore tuna are not considered overfished. They are a very productive stock, and their spawning stock biomass is growing. However, there is some concern that albacore may be aggressively fished; the International Scientific Committee, which assesses albacore, has called for a precautionary approach to harvest. US west coast vessels catch less than 1% of the following species, for which conservation concerns exist: Bigeye tuna biomass is in decline, overfishing may be taking place; Skipjack tuna is difficult to assess, little known, but appears to be no conservation concern; Yellowfin tuna overfishing is occurring; Striped marlin appears to be much reduced. Difficult to assess. Current levels of international fishing are considered unsustainable.

Coastal Pelagic Species

No coastal pelagic species (CPS) fisheries are experiencing overfishing, and none are overfished. Pacific mackerel and Pacific sardine are actively managed stocks, and are assessed every three years, with updates done annually. Jack mackerel, anchovy, and market squid are monitored stocks. Monitored stocks are generally state-managed species. No international agreements exist on the management of west coast CPS stocks, and information on harvest and biomass trends outside US waters is limited. Pacific mackerel was last assessed in 2007. It is considered healthy, with increasing biomass. Pacific sardine stocks were last assessed in 2007. They are considered healthy, but their biomass has been decreasing. Anchovy have not been assessed in recent years. Generally anchovy and sardine populations have opposite trends, as they prefer different marine regimes (anchovy prefer cold water regimes and sardine prefer warm water regimes). The market squid fishery in California is the highest volume and value CPS fishery. The population is monitored to ensure adequate egg escapement by limiting the annual take, restricting allowable gear, and by weekend closures for uninterrupted spawning periods. Market squid populations are tied directly to ecological conditions and their numbers can drop significantly during El Nino events.

Groundfish

The Council manages about 92 groundfish species (the number is approximate because the taxonomy of some of the rockfish species has not been resolved). Of these 30 species have been assessed; more assessments of new species are planned. Of these 30 species: 19 are at healthy levels of abundance. (These include arrowtooth flounder, bank rockfish, black rockfish, blackgill rockfish, California scorpionfish, chilipepper rockfish, Dover sole, English sole, gopher rockfish, kelp greenling, lingcod, longnose skate, longspine thornyhead, Pacific whiting, shortbelly rockfish, shortspine thornyhead, vermilion rockfish, and yellowtail rockfish); Four are at precautionary level of abundance (Petrale sole, sablefish, and in California only, cabezon and blue rockfish); Seven are overfished (cowcod, bocaccio, yelloweye rockfish, canary rockfish, darkblotched rockfish, Pacific ocean perch, and widow rockfish.) All are under rebuilding plans; the latter two are expected to be rebuilt shortly. Many groundfish stocks, including about 12 rockfish, are unexploited or subject to low exploitation rates due to their small size. In addition, many shelf species have been subject to lower exploitation reates since the inception of Rockfish Conservation Areas in 2003.

From: Pacific Council News, Fall 2008

Gag Overfished: Gulf and South Atlantic

The Gulf of Mexico Fishery Management Council voted to address the overfishing of gag in the Gulf of Mexico. An interim rule, which can only be used to deal specifically with overfishing is expected to become effective January 1, 2009. Here's a rundown of what the interim rule will do:

- Establish a 2 gag recreational bag limit. The aggregate bag limit for all shallow water grouper will remain at five.
- Adjust the recreational closed season for gag to February 1 March 31. The closed season for black and red grouper will remain February 15 to March 15.
- Establish a 1.32 MP gutted weight commercial quota for gag.
- Require charter boat and headboat operators who possess a Gulf reef fish permit to comply with Federal regulations for gag, red snapper, greater amberjack, and gray triggerfish if federal regulations are more restrictive than state regulations. Applies regardless of where fish are harvested.

The South Atlantic Fishery Management Council gave final approval to Amendment 16 to the Snapper Grouper Fishery Management Plan during its meeting in Charleston, South Carolina, September 2008. The amendment includes measures to end overfishing of gag grouper including a 4 month spawning season closure for gag and shallow water grouper, reductions in bag limits, commercial quotas, and other measures. Measures to end overfishing for gag include: a spawning season closure January through April for both commercial and recreational fishermen for gag and other shallow water groupers including black grouper, red grouper scamp, red hind, rock hind, yellowmouth grouper, tiger grouper, yellowfin grouper, graysby, and coney; a commercial quota for gag of 352,940 pounds gutted weight. After the quota is met, all purchase and sale of shallow water grouper would also be prohibited; reducing the 5 grouper aggregate bag limit to a 3 grouper aggregate bag limit and the existing bag limit from 2 gag or black grouper to 1 gag or black grouper; and excluding the captain and crew on for-hire vessels from possessing a bag limit for groupers.

American shad's decline a mystery

Despite stocking efforts, fish passages and regulations, East Coast population is at all-time low By Karl Blankenship

Young American shad will soon begin their perilous fall migration out of Bay tributaries and into coastal waters where, if they're lucky, they will live the next four or five years until they return as adults to spawn. As they swim downstream, they will have to find their way past predators their ancestors never had to deal with, such as blue catfish in Virginia Rivers and the Potomac, largemouth bass, even snakeheads. In some rivers, the young shad will have to make their way through power-producing turbines at hydroelectric dams. When they make it to the Bay, they'll have to get past a hungry and abundant population of striped bass. Not only is the predator population large, individual fish on average are bigger than they have been in decades, meaning they need more to eat. Along the coast, the shad that survive will face more predators and a new hazard: an array of fishing gear targeting other fish that often snares shad as well. By various estimates, only one out of every 300-400 larval shad survives to return. But the odds may be getting even worse.

In recent years, the shad population in almost every major Bay tributary except the Potomac has been dropping for reasons that are unclear. Others, at best, are holding their own. And the Chesapeake is not alone. On the Hudson River, the annual shad festival was shad-free this year-to conserve fish. Last year, the Atlantic States Marine Fisheries Commission, a panel of state and federal fishery managers responsible for managing migratory fish, completed an American shad stock assessment that concluded that shad stocks along the East Coast are "currently at all-time lows."

No one is certain why shad, which have been the target of large-scale stocking efforts, fish passage projects and a host of fishing regulations along the coast, have not rebounded. "That's a very good question and one that everyone is struggling with," said Jack Travelstead, fisheries director for the Virginia Marine Resources Commission, and a member of the ASMFC. "The status of the population does not appear to be the result of the current shad fishery because the amount of harvest is miniscule." Few rivers have fisheries that target shad; those that did have closed in recent years, or are being ratcheted back. Suspects in the mystery include increased predation by other fish both in estuaries and along the coast, degraded water quality from pollution, loss of habitats such as underwater grass beds along migration routes and the loss of shad as bycatch in other fisheries operating along the Atlantic Coast.

Shad once supported one of the largest fisheries along the coast, with landings peaking at about 50 million pounds at the beginning of the 20th century. That had fallen to 3.8 million coastwide in 1980. That year, landings in Maryland dropped to 25,000 pounds, and the state imposed a moratorium on shad fishing. The Potomac followed suit in 1989, and Virginia closed its rivers to shad fishing in 1994.

While fishing was cut back, massive efforts were undertaken to restore fish. Pennsylvania, Virginia, Maryland and-most recently-Delaware launched hatchery operations to rear shad for release in their rivers. Hundreds of millions of larval shad "fry" have been stocked in recent decades. Meanwhile, major efforts were made to reopen historic spawning areas to returning fish. On the Susquehanna alone, which historically had the most spawning habitat of any river on the East Coast, utilities invested

roughly \$100 million to build passages at four hydroelectric dams in the lower part of the river. On the James, a passage at Boshers Dam near Richmond, along with other projects, have opened almost the entire drainage to fish migration. On the Rappahannock, the Embrey dam outside Fredericksburg was blown up in 2004 to help clear the way for spawning shad.

Similar strategies were pursued on other rivers along the East Coast. To further help those efforts, the ASMFC in 2000 began phasing out commercial ocean fishing that targeted shad. Because shad from many rivers may migrate together along the coast, managers were concerned that shad fisheries in the ocean indiscriminately caught fish, thwarting recovery efforts in many rivers. That fishery was fully phased out in 2005, and effectively left shad management on a river-by river basis so areas with seemingly healthy shad runs could have small fisheries, while others could protect their fish. For a while, it looked like all of those efforts were paying off. Shad runs almost everywhere around the Bay-although low compared with historic levels-seemed to be edging up. But in recent years, that trend has halted or reversed. Biologists acknowledge there is no single "smoking gun" in the decline, and say several factors may be to blame. In fact, the ASMFC's three-volume, 1,200-page stock assessment acknowledged that it "may not provide definitive answers to all the questions plaguing management of Atlantic coastal American shad" but did offer "insight to management on the complexity of the issues."

Nowhere around the Bay is the the story more dismal than on the Susquehanna. This spring, only 19,912 fish were counted at the Conowingo Dam, the lowest number since a \$10 million elevator began operating in 1997 to lift fish over the 100-foothigh obstruction.

Initially, shad numbers returning to Conowingo showed encouraging signs. In 1997, 90,971 passed the dam; by 2000 the number reached 193,574. Since then, it has trended strongly down. No single factor seems to explain the decline. But getting fish past all four dams and into spawning waters has been problematic. On average, only about 2 percent of the fish that are lifted over Conowingo make it past the fourth dam at York Haven. This year, only 21 fish made it past all four. "Probably 80 to 90 percent of the quality nursery and spawning habitat lies upstream of the hydroelectric dams," noted Larry Miller, who heads the Mid-Atlantic Resource Office of the U.S. Fish and Wildlife Service. Ironically, more fish got upstream before the passages were built. Prior to the completion of the fourth and final passage in 2000-which theoretically opened the Susquehanna to migrating shad-utilities paid to truck as many as 50,000 migrating adult shad a year past the dams and release them in spawning habitat. "Since we are not trucking fish anymore, we rely on fish passage to get them in up river where they spawn on their own," said Mike Hendricks, a fisheries biologist with the Pennsylvania Fish and Boat Commission. "Since fish passage isn't working as well as it needs to, it's been a number years since we've had good production of juvenile wild fish." The owners of the Holtwood Dam, which is immediately upstream of Conowingo, have proposed changes aimed at improving passage at the dam, which in most years passes less than half of the fish that make it over Conowingo. Fisheries officials hope to negotiate improvements to passages at other dams as their federal licenses come up for renewal.

But passage is not the only issue on the Susquehanna. Hatchery production has been poor since 2001 because of a variety of problems. This year, 2.5 million fry were reared in the Fish and Boat Commission's hatchery on the Juniata River, a Susquehanna tributary. That was better than most recent years, but far below the 10 million stocking goal. Hendricks doesn't expect that goal to be met anytime soon because of shad problems elsewhere. The Hudson, once the main egg source for the Susquehanna hatchery, is closed because of its own plummeting population. "You can't politically justify allowing some other state to take fish on a stock that is declining," Hendricks said. "No one would do that." The Delaware, another source, has also been closed for Susquehanna use because of concerns about its stock. The lack of spawning adults, and lack of hatchery production, means few juvenile shad leave the river. "If they don't leave, they can't come back," Hendricks said.

Elsewhere, surveys by the Virginia Institute of Marine Science show that shad runs on both the James and York rivers-once important shad spawning areas-are trending down. The index on the James has fallen sharply since 2003, and this year's index was the lowest since 1998, when the survey began. The survey shows the York River has been declining for a decade. The James decline is especially disappointing because the river has been the subject of an intense stocking effort dating to 1992. Since then, biologists have stocked 104 million shad fry. "Things looked great until 2003," said Dean Fowler, a biologist with the Virginia Department of Game and Inland Fisheries. "We were trending up. The runs appeared to be increasing in abundance every year." Trends in many other rivers are less clear. In Maryland, the lack of surveys directed at adult shad make it difficult to determine trends. The state has heavily stocked the Patuxent River, once devoid of shad, for more than a decade and more recently has started stocking the Choptank and Nanticoke rivers.

While those stocking efforts have brought shad back to the rivers, Brian Richardson, a biologist with the Maryland Department of Natural Resources, said "we should be seeing more adults." "We have all these shad restoration programs up and down the coast, and you can do everything right," Richardson said. "But if there is natural mortality or some other mortality out there on the coast, you're kind of spinning your wheels."

Yet the story is not universal. In Virginia, the VIMS survey shows that the Rappahannock has had a small but stable-and perhaps slightly increasing population-over the last decade. The Rappahannock has not been the target of restoration efforts until the last few years when the Embrey Dam near Fredericksburg was removed and large-scale stocking efforts began. But that was too recent to influence the 10-year trend.

Across the river, surveys in the Nanticoke also suggest the stock may be small, but stable, although recent years seem to be far below peaks seen in 2003 and 2004. Meanwhile, the Potomac, almost alone along the East Coast, has shown a marked increase over the past 15 years. An annual survey during the spring shad run caught 23.6 shad per net this year, slightly more than the 15-year average of 22.3 and significantly higher than the 13.4 average seen in 1995. "It was a decent run," said Jim Cummins, a biologist with the Interstate Commission on the Potomac River who has been working for years to restore the river's

shad. Cummins can tick off reasons why he thinks the Potomac shad run has bounded back. Water quality in the river has improved dramatically since the 1960s, when the Potomac was considered a national disgrace. Underwater grass beds, which provide habitat, have rebounded. Fishing moratoriums, both in the river and along the coast, have helped to protect the shad. A fishway completed at the Little Falls dam in 2000 reopened 10 miles of spawning habitat that Cummins believes were historically important and largely protected spawning shad from predators. Stocking efforts have likely helped as well, he said. But the main reason, Cummins said, is that the Potomac has some unique feature, yet to be identified, which makes it especially productive, even though it has relatively little spawning habitat. Great Falls just upstream from Washington blocks the river to migration. In other systems, shad sometimes have hundreds of miles of habitat for spawning.

Despite the seeming lack of habitat, historic records indicate "almost unbelievable" runs on the river, Cummins said. In the early 1800s, as many as 20 million shad were caught per year, with little apparent impact on the population: The fishery did not peak until the late 1800s.

Nonetheless, Cummins sees some cautionary signs on the horizon. In fact, he was disappointed in this year's run. In 2004, the survey averaged 39 fish per net-its highest number ever. Fish produced from that record run began reaching spawning age this year. "I was expecting to see more of them entering the system and was expecting a big run," he said. Another concern is that the five-year survey average from 1995-99 was 16.7 fish per net. It leaped to 30.1 from 2000-04. But from 2004-08, the average dipped slightly to 27, which may suggest the rebound may have started to plateau. Like many others biologists, he strongly suspects that something not fully understood is taking a coastwide toll on shad. The ASMFC stock assessment said that total shad mortality in the ocean is unknown, and can come from a variety of sources, including predation by other species and being caught as bycatch in fisheries targeting other species. The lack of information hampers efforts to explain what's driving the trends.

Rebounding striped bass numbers have been cited as a suspect by some. In places such as the Connecticut River, there appears to be a correlation between rising striped bass numbers and declining shad. It's unclear if that's a coastwide problem, according to the stock assessment, but some suggest that could be the case in the Bay, as well, where the striped bass numbers are high, and the availability of other forage fish, such as menhaden and bay anchovy, is thought to be low. "It's not hard to imagine that it would be the case in the Chesapeake, where we believe the resident stripers are limited by forage," said Bill Goldsborough, a fisheries scientist with the Chesapeake Bay Foundation and member of the ASMFC. Coastal waters are also filled with a host of other species that eat shad, such as bottlenose dolphins, sharks, seals, other fish and birds. It's unknown how many shad are eaten by other species, or whether those trends have changed over time. "They're spending nine-tenths of their lives in the ocean, and they are principally a food fish for other things," Cummins said.

While fisheries targeting shad have been closed in the ocean, there's growing concern that large numbers of the fish may be caught in other fisheries. Species- specific bycatch is often unrecorded because of the difficulty of distinguishing between fish. Many fisheries along the coast harvest small bait fish. While the bycatch of more lucrative species, such as striped bass are recorded, young shad and other species are listed as "unclassified bait," according to ASMFC. The same problem exists with some fisheries that target larger fish in coastal waters, such as Atlantic herring. Many species are caught as bycatch, but are often not identified. "We need to resolve the extent to which bycatch exists, and then we need to correct it if it does exist," Goldsborough said. But he cautioned, that is not as easy as it sounds. "Fish in the herring family [which includes shad] can look awful familiar, and there are a lot of different ones, some of which might be open to harvest," he said. Trying to understand how many shad might be caught means sending trained biologists on fishing boats to identify what's being caught before the fish are discarded, a potentially expensive endeavour.

If bycatch is a problem, it would also mean other fisheries would have to be managed differently to protect shad. That can be problematic because fisheries are typically managed independent of each other. Further, shad don't stop swimming at the U.S. border when they migrate north during summer months, and it's unknown whether Canadian fisheries might have some impact. Other factors could be playing a role, such as changing ocean currents, and even changing climate. In Virginia, Fowler said surveys by DGIF biologists on the Pamunkey River, one of two major tributaries to the York, show that survival of young shad is poor in years when July is drier than normal. "It seems we've had a lot of drought years the last 10 years," Fowler said. "Whether that is the only driver behind this decline, we don't know."

If it is a major factor, it bodes poorly for this year's stocking effort. Although 6.9 million shad fry were stocked in the James and its tributaries, making it a better than average year, July was also drier than normal. "We can stock fish until we're blue in the face." Fowler said, "but if the rearing conditions aren't there, the fish aren't going to survive. Mother Nature has to cooperate, too."

In addition, concerns linger about the quality of spawning habitat in rivers themselves. The ASMFC is exploring management options and is expected to make recommendations this fall, which likely will include setting river-specific population targets to guide management; gathering better information about various factors affecting the shad stock, including predation and bycatch; and further restricting any harvests as the first steps toward restoring shad to its past glory. The Latin name for shad is *Alosa sapidissima* -sapidissima means "most delicious"-and the fish was once valued all the way from the estuaries to the headwaters of major rivers. But in many areas, people have not savored that taste for years. "The shad are the silver thread that binds us," said Miller, of the USF&WS. "They bind the folks in the Upper Susquehanna to the folks in the Bay to the resources off the state of Maine. All of them have to be clicking right for anyone to get the benefit of having shad."

From: Bay Journal, September 2008

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NOVEMBER-DECEMBER 2008

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 December1948 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 in1974, 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 softspoken, 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 Et 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 !980'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. Distict 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 fishermen rammed boats. cut nets and exchanged 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 humanfood 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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