



American Institute of Fishery Research Biologists

Promoting excellence in fishery science

Website: www.iattc.org/aifrb/

... BRIEFS ...

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JANUARY-FEBRUARY 2009

Our President on Service

I wanted to comment on two things that are unrelated but were on my mind when Gene reminded me that it was time for some comments. Bill Bayliff has been in charge of our W.F. Thompson award for the best student paper published in 2007. There are 13 papers this year and he is in the process of finding reviewers. Bill has done this for years and it is a substantial commitment of his time. It is also a tremendous service to younger scientists entering our profession. The nomination is important and the successful candidate has recognition that helps with employment and builds self confidence. The second issue relates to my job as an editor for the Transactions of the American Fisheries Society. Reviewers and associate editors do an exceptional job of identifying the strengths and weaknesses of manuscripts. I routinely receive 10 to 15 pages of comments from three or four reviewers including the associate editor. In almost every case, these comments are constructive and helpful. I have a lot of respect for anyone who finds the publishable material in their work and takes the time to struggle through the peer review process. We accept about 2/3 of the papers that are submitted. The papers we accept benefit from the review process as the revised manuscripts are almost always better than when submitted. I think that the authors of the papers that we do not accept also benefit as there are some good reasons why publishing the article is not in the best interest of the author or the journal. The reason why I was thinking about these apparently unrelated situation is that they are examples of people giving back to our profession. This is my vision for AIFRB.

Cheers

Dick

Treasurer's Report - Through 8/31/08

American Institute of Fishery Research Biologists Statement of Cash Receipts and Cash Disbursements 9/1/07 through 8/31/08

Cash Receipts

AIFRB 50th Symposium	0.00
Founders/Unrestricted Funds (to Operating Funds '08)	1,885.00
Member Dues	15,410.72
Capital Gains (Reinvested '07/'08)	0.00
Investment Income (Reinvested '07/ to Operating Funds '08)	3,445.88
Funds Transfer	2,085.79
United Bank/PayPal Interest	88.00
Total Cash Receipts	22,915.39

Cash Disbursements

AIFRB 50th Symposium Transfers	0.00
AIFRB Reception	1,494.64
AIFRB Awards	
Achieve Award Expense ('06)/Kasahara Award ('07)	2,500.00
Research Assistance Award	1,000.00
W.F. Thompson Best Paper Award ('05)	1,000.00
Board of Control	3,914.17
Bridge Loan	0.00
BRIEFS Newsletter	6,655.83

Continued on next page.

Collection	0.00
Donation (5th World Fish Congress '07)	0.00
District Recruitment	100.00
Foreign Tax ('06/'07)	0.60
Honorarium/Memorial	0.00
License Fees	0.00
Membership Expense	264.23
Other (Website Development)	5,499.00
President's Expense	0.00
Production Editor (Bulk Mail Permits)	0.00
Invest Income (Reinvest '07/ to Operating Funds '08)	0.00
Reimbursement	0.00
Service Charges (Checking/Equity Accounts)	97.98
Service Contract	0.00
Secretary's Expense	342.19
Transfer Funds (Invest Income to '08 Budget Obligations)	3,445.88
Travel Display	0.00
Treasurer's Expense	462.02
Total Cash Disbursements	26,776.54
Net Change for Fiscal Year Ended - 8/31/08	-3,861.15
Beginning Cash Balance - 9/1/07	36,477.09
Total Beginning Cash	36,477.09
Cash Balance at August 31, 2008	32,615.94

Membership - Two to Emeritus

Vaughn Anthony, F 1980
Donald E. Sweat, M. 1974 F 1987

The Amazing Invisible Districts

For the first several of my thirteen years as Editor of Briefs I could count on reports of district activities to help me fill the great white 12 page void that comes to haunt me every bimensis. Whether they knew it or not the reporters within each district were showered with, nay saturated with, telepathic and figurative kisses and hugs as I salivated over meals served, cogitated over talks heard, and ruminated over elections held within each of the Institute's subunits, and as I simultaneously filled the pages of *Briefs*. I especially envied the various northwestern units who invariably descended on five star purveyors of Asian cuisine wherein they consumed meals the likes of which have not been seen since the great court banquets of Kublai Khan. The California bay area group too had an affinity for Kung Pao mule and Szechwan pepper, but they always seemed to screw up really fine meals with some mind-bending presentation like "The production of romaine lettuces in the central valley expressed as mineral composition of scales of the delta smelt". Elsewhere our Districts were more plebeian, tending toward hot dogs, or in salad years (no reference to the romaine above) even the occasional ribeye steak. But regardless of the comestibles consumed, the reports of meals, presentations, discussions, good works (like judging student papers at meetings, science fair participation etc) provided me with appropriate and excellent fodder for *Briefs* and verified the vitality of the Institute as a whole.

But no more. It has been months since I have been able to report a gastronomic delirium above Puget Sound, or a terminally boring business meeting in Tallahassee. Come on folks! WHERE IS THE NEWS? The masthead of *Briefs* lists a whole busload of people who are District Directors. Moreover the credentials of these Directors is such that I am pretty sure that they are carrying out the responsibilities they assumed upon election or appointment, that is, they are doing stuff. So don't keep it a secret. Please send district news! And if the group eats Flying Squirrel Go Bah I want to know about it!

The Editor

Borgeson Seconds Skud

A reader writes

Bernie Skud makes a convincing argument for recruitment reform (A Past President Ruminates on Recruitment to Members, Directors, Officers, BRIEFS, Vol. 37. No. 6, pp. 6-7). He suggests trying what apparently worked well in the past. I support Bernie. It still pays to advertise. David P. Borgeson

As always, members are encouraged to voice their opinions in Briefs, please. Editor

Lee Alverson Writes Memoir Multiple Comments

“Race to the Sea”: The Autobiography of a Marine Biologist

Normandy Park, Wash., Dec. 3, 2008 – With large waves crashing over their boats in the frigid waters of the Bering Sea off the western coast of Alaska while the music of popular rocker Bon Jovi blares in the background, a group of crab fishermen are being taped for their reality TV show, *The Deadliest Catch*. No one could have predicted the growth in popularity for the commercial fishing industry. Or could they? Author Dr. Dayton L. Alverson, a marine biologist, talks about the explosive popularity of commercial fishing post WWII, as many other personal accounts of life on and off the water in his latest release, “Race to the Sea” (published by iUniverse – <http://www.iuniverse.com>).

Although not directly credited for making crab fishermen overnight celebrities, Dr. Dayton L. Alverson does take credit for being part of an environmental movement in the later half of the 20th Century that would lead to several conflicts between fishing and conservation groups, would lead to several conflicts between fishing and conservation groups, ultimately resulting in changes of national and international fish policies.

With section headings like “Assignment Unknown,” “China Bound” and “Into the Atlantic”, a reader may think Dr. Alverson was working as a covert operative for the CIA or, better yet, alongside James Bond himself. “It was one of those evenings that you dream about, but which seldom occur. The island was covered with beautiful old-growth firs, which sat quietly in the cool of the evening, beckoning us to come ashore,” writes Dr. Alverson.

Readers will revel in the plethora of firsthand experiences and stories about Dr. Alverson’s life working in the international fishing community. Dr. Alverson writes his stories in the same format as one of his idols, famous biologist Rachel Carson, did in her books. Later in his career he would observe the direct fallout of this international embrace as the world’s seas became heavily overfished and polluted. Today we can see the results of these overfishing practices on shows like *The Deadliest Catch*, as captains and their crews risk their lives spending more time and traveling farther from safety to catch enough fish and seafood to make a living.

About the Author:

Dr. Alverson was born in San Diego, CA in 1924. He served in the U.S. Navy for four years during WWII. After his service, he earned his bachelor’s degree in 1950 and later his doctorate in 1966. Dr. Alverson has worked for State and Federal conservation agencies for over 30 years before creating his own consulting company, where he worked until 2000. During his career he published over 150 scientific and technical articles. When not enjoying his two children, four grandchildren and two great grandchildren with his wife of 62 years, Ruby, Dr. Alverson enjoys recreational fishing, writing, traveling, swimming and sports of all kinds. “Race to the Sea” is Dr. Alverson’s first autobiography.

“Race to the Sea” is available from: <http://www.iuniverse.com>,

<http://www.bn.com>, and <http://www.amazon.com>

ISBN: 97805954868091 – 6 x 9 = Paperback – 568 pages - \$32.95

iUniverse offers a variety of publishing services to help individuals.

Race To The Sea: The Autobiography of a Marine Biologist Dayton L. Alverson

As far as I know, this is the first book-length (553 pages) biography or autobiography of a fishery biologist. This is not a review, as so far I have read only one chapter.

Lee Alverson’s career, which spans the second half of the 20th century, will certainly be of great interest to a wide range of fishery biologists and others—gear experts, political scientists, economists, etc., as he has worked for the state of Washington and the U.S. National Marine Fisheries Service and consulted for various organizations in many parts of the world. Eventually, he formed his own consulting company, the highly-successful Natural Resources Consultants of Seattle, Washington, which has had clients from all over the world. There is no index, but while skimming through the pages I have seen the names of many influential people in fisheries—politicians, entrepreneurs, and administrators, in addition to biologists and oceanographers. His best-known published work is FAO Fisheries Technical Paper 339, A global assessment of fisheries bycatch and discards, by Alverson, Freeburg, Murawski, and Pope, a 257-page paper that has been cited by an impressive 524 others, according to Google Scholar.

Bill Bayliff

Marine biologist looks back

Lee Alverson has completed a memoir that chronicles his participation as researcher, bureaucrat and consultant in the dramatic transition of the U.S. and global fisheries.

By Hal Bernton

Seattle Times staff reporter

Marine biologist Lee Alverson thought his first trip aboard a Pacific trawler back in 1949 might well be his last. Awakened in the early morning by a violent pitching, he feared the boat was sinking. So, he threw on his pants and rushed to the galley. There he found the crew savoring Canadian Club and coffee in another rough but routine passage over the Columbia River Bar.

"I sat down and the crewman at the table passed me the bottle of whiskey without saying a word," Alverson, a longtime Normandy Park resident, recalls. "I picked up the bottle...and took a drink although it didn't go down easy." For the next several days, Alverson was introduced to an astonishing diversity of red, rose, orange, brown, and black rock fish hauled up aboard the decks, and then largely discarded because there was no market for them.

Key moment

It was a pivotal moment in the young biologist's career, which redirected him from a focus on salmon to the largely unexplored world of Pacific rockfish, hake, cod, Pollock and other groundfish. Alverson's career has spanned more than a half century as he helped document the scope of the marine resources, and later tried to protect them from overharvest by foreign and U.S. fleets. Along the way, Alverson emerged as one of the Pacific Northwest's most influential fishery biologists. At the age of 84, he has completed a memoir, "Race to The Sea," that chronicles his participation in the dramatic transition of the U.S. and global fisheries.

As a researcher, bureaucrat and industry consultant, Alverson has had a close-up view of the evolving science and often vicious politics of the fisheries. He relished the firsthand knowledge gained joining a fishing crew at sea or mingling with them at a dockside coffee shop even as he traveled to Europe, Japan and former Soviet Union to help negotiate fishing agreements.

"We used to say he got his hands wet," said Stanton H. Patty, a former marine reporter for The Seattle Times. "There were a lot of biologists who would just sit in the office. Lee was always on top of the situation, and a jump ahead of everybody else."

Alverson grew up in a Navy family, and followed his father on a series of assignments that included several years in Hilo, Hawaii, during the Great Depression. For Alverson this was one of the best times of his life. He and his brother, outfitted with a small outrigger canoe, would catch parrot fish, puffers and other sea life.

As a federal biologist based in Seattle during the 1950s, Alverson launched ambitious research explorations of the Pacific Northwest and Alaska fisheries.

Alerting industry

His publications were intended to alert the U.S. fishing industry to the vast potential of these resources. But as Alverson headed off to international fishing conferences he realized that they also had helped draw a new generation of Soviet and Asian factory fleets to fish off U.S. coasts.

"That didn't make me feel very good, and I quickly realized that we didn't have any management, and we didn't have any control," Alverson said.

In the 1970s, Alverson was involved in international negotiations to try to track the foreign harvests as angry U.S. fishermen pressed for new federal legislation that would give the U.S. government fishery controls over a 200-mile area off the nation's coasts. The State Department, fearing the diplomatic repercussions of claiming that zone and pushing out foreign fleets, was opposed to the extension. At a 1971 meeting in Geneva, Alverson dared suggest that the U.S. was "out of the loop" in opposing the 200-mile limit, and he said he was told by a State Department aide that he could be arrested if he promoted an idea out of step with U.S. policy.

In 1976, Congress stepped in to pass legislation to create the bigger fishery zone and set up federal fishery councils to help set harvests. A decade later, foreign fleets were on their way out, and a new series of bitter allocation battles flared among U.S. fishermen.

Alverson's book also offers a few inside glimpses of the life of a fishery-conference delegate. There was, for example, an unnamed director of the Scripps Institute of Oceanography who drank so much at dinner during the Geneva meeting that he ended up asleep, face down, on his plate.

During the last 20 years, most of the fishing stocks in Alaska have held up well, sustaining the largest fishery by far in North America. Alverson says the success is, in part, due to the industry's support for scientists who worked on Alaska fisheries. That helped the regional council to set harvest limits well within the conservation recommendations.

Decline in harvests

That didn't happen in New England, where fish harvest have declined dramatically. There also have been major problems in harvests off Oregon and Washington. He and other scientists initially underestimated the age and growth of some rockfish species, so the harvest rates were too high.

Another big problem, Alverson, said, was the enormous amount of fish thrown away at sea.

Today, Alverson and his wife, Ruby, live in Normandy Park in a house he first moved into back in 1951. It's just a block from Puget Sound, where he often likes to stroll the shore.

Earlier this week, he shared morning coffee with friends at Chinook's at Fishermen's Terminal in Magnolia. He brought along a half dozen copies of his book. Everybody at the table bought them.

Submitted by: Allen Shimada

**Book Review: Race to the Sea by Dr. Dayton L. Alverson Posted on
February 13th, 2009 by Ron Standefer in All News, Book Reviews.**

Crab fishermen are hot these days, the latest in a long series of American folk heroes. If you don't believe me, watch *The Deadliest Catch*, the latest reality TV show. There, you can see the captains and their crews risking life and limb to fish as large waves crash over their boats in the frigid waters of the Bering Sea off the western coast of Alaska while the music of popular rocker Bon Jovi blares in the background. What is it all about? Why are they doing this? It's all about overfishing and the need for commercial fishermen to travel further and take more risks to make a living. And very few people in the world know as much about international fishing as Dr. Dayton L. Alverson, marine biologist and author of "Race to the Sea."

Dr. Alverson takes us on a long, leisurely journey through his life; starting with this early life experiences, through high school, World War II, his education and his involvement in State, Federal and International fisheries science and management. Memories of his childhood as a "Navy brat" living in Hawaii and San Diego are filled with nostalgia while accounts of his military service in China during World War II seem to be excerpted from a spy novel with chapter headings like "Assignment Unknown," "China Bound" and "Into the Atlantic."

But while Dr. Alverson's account of his early life makes for pleasant reading, it is his description of the period from 1950 to 2000 that is the most interesting. This is when world fishing grew dramatically from small boat coastal activities to fleets of large vessels roaming the globe in search of larger, more profitable catches. This dramatic growth in world fishing eventually led to overexploitation of the oceans and seas as well as numerous conflicts between fishing and conservation groups. Dr. Alverson worked for State and Federal conservation agencies for over 30 years and readily admits to being part of an environmental movement whose direct challenge to the fishing industry ultimately led to changes in national and international fishing policies. In particular, overfishing and its impact on coastal fisheries ultimately led the world community to seek new laws for the harvest of ocean fisheries and resulted in unilateral extension of national jurisdictions over ocean space.

More than anything, *Race to the Sea* provides a valuable, behind-the-scenes insight into the struggle between those who labor to feed the world population and those who fear the depletion of one of the earth's most valuable resources. Dr. Alverson has been at the center of this conflict for many years, working with both sides and therefore is eminently qualified to tell the story. It is a fascinating read and I heartily recommend it.

Submitted by: Allen Shimada

Two Losses

Herbert W. Graham

Feb. 6, 2009 – 12:45:57 PM

<http://capecodnow.net/artman/publish/Obituaries/Herbert-W-Graham.shtml>

Herbert W. Graham of Woods Hole, MA, former longtime director of the National Marine Fisheries Service Laboratory in Woods Hole, died at home on January 25 at the age of 103.

He was the husband of Ruth (Thompson) Graham, who died in December 1997. They were married for more than 66 years at the time of her death.

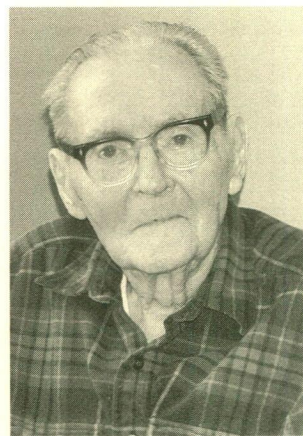
Born in New Brighton, Pennsylvania, in December 1905, to Wilhemina C. (Jahns) and William Harrison Graham, he had an interest in biology and natural history that started when he was a child. That led him to become an herbarium assistant in the Carnegie Museum in Pittsburgh in 1924, after his graduation from Ambridge High School. The job allowed him to study botany at the University of Pittsburgh, from which he graduated in 1929.

A graduate fellowship to study the phytoplankton of Lake Erie influenced his future career. After the fellowship, he participated in a world oceanographic survey aboard the brigantine *Carnegie* of the Carnegie Institution of Washington. The survey needed a chemist and biologist and he was offered the job.

He was aboard the ship when it met an untimely end. According to an article by John Bunker that appeared in the November 1982 issue of *Surveyor*, the *Carnegie* stopped in Apia, Samoa, on November 28, 1929, for fuel and supplies. The next day, after taking on gasoline, an explosion occurred, killing two and injuring many others. Within a few hours, the ship had burned to the waterline.

Dr. Graham then fell heir to a large plankton collection and a lot of chemical data.

Dr. Graham stayed with the Carnegie Institution for seven years, becoming an expert on dinoflagellates, a key group of marine plankton organisms. This work was carried out at Hopkins Marine Station of Stanford University in California and Scripps Institution of Oceanography, also in California. While conducting these studies, which included publishing articles in scientific journals, he earned his master's degree and his doctorate from Stanford in 1937. Next he spent a year at Texas Christian University at Fort Worth, Texas, as an assistant biology professor. In 1939, he became an associate professor at Mills



College in Oakland, California, later becoming a full professor, chairman of the zoology department, and convener of the school of natural sciences.

He was asked in 1948 to head the oceanographic survey work of US government's Philippine Rehabilitation Program, his first full-time government position. After 18 months in Manila, he transferred to Sarasota, Florida, to take charge of the Fish & Wildlife Service Red Tide Laboratory. Red tide, which is what the lab studied, is caused by a dinoflagellate. In June 1951, he was transferred to Woods Hole to head up the Fisheries Laboratory. Using his broad knowledge of biology and oceanography, he was able to develop the program the laboratory was tasked to research: the study of offshore ground fish. Through his efforts, funds were allocated for replacement of all the facilities, including the labs, aquarium, and docks, the construction of the Albatross IV, and the expansion of the staff needed to carry out the required research. When he came to Woods Hole, the International Commission for the Northwest Atlantic Fisheries had just been organized. Much of his tenure and the Fisheries' program of research were associated with that organization. For almost 20 years, he was the country's representative on the research of that international commission.

Dr. Graham was also the author of many scientific papers, in the fields of paleontology, oceanography, and fishery management.

He retired in 1971. In his retirement, he pursued his longtime interests in beekeeping, carpentry, and gardening. According to an Enterprise article, he and his wife won a garden club award in March of 1963 for their patio. Another Enterprise article, from July 1972, said he had 15 colonies of bees, about 900,000 bees in all. He said at that time, it was not only for the honey that he had the hives, but also to study their life cycle.

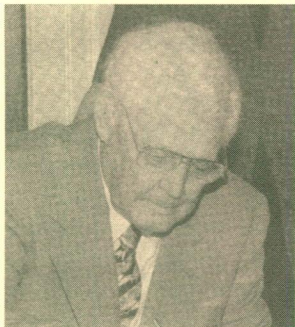
He leaves his daughter, Anne G. Tricomo of Concord, California, and his son, David H. Graham of Falmouth; two grandsons, David Tricomo of Beaverton, Oregon, and Scott Tricomo of Colfax, California; and two great-grandsons. In lieu of flowers, memorial donations may be made to NAMI National Alliance of Mental Illness, Colonial Place Three, 2107 Wilson Blvd., Suite 300, Arlington, VA 22201-3042.

A Famous Non-Member

VIMS founder; William Hargis dies; was director from 1962-81

He separated advisory service from research activities, allowing VIMS to offer unbiased scientific advice on decisions affecting Virginia's marine resources and the Bay watershed.

By David Malmquist



Dr. William Jennings Hargis Jr., the first director of the Virginia Institute of Marine Science died Oct. 17.

Hargis, an emeritus professor of Marine Science at VIMS, served as director of the institute from 1962 to 1981. He also directed VIMS' predecessor, the Virginia Fisheries Laboratory from 1959 to 1961, and was instrumental in transforming that small facility into one of the nation's largest research and education facilities focusing on coastal ocean and estuarine science.

In a 2003 interview, Hargis rated the founding of VIMS as his "most significant accomplishment." During his tenure as director, he helped the institute expand from a single building to a 40-acre campus with 11 laboratory and teaching buildings, a field laboratory on the Eastern Shore and an international reputation. Hargis wrote more than 130 research publications, 22 essays and testimony statements to the U.S. Congress, and more than 40 reports, essays and educational pieces on marine science, the environment and resource management. He also edited,

translated or reviewed more than 500 scientific documents.

Awards and honors bestowed on Hargis include the Neptune Award from the American Oceanic Organization (1971), the National Wildlife Federation Special Conservation Award (1976), the Mathias Medal for Contributions in Marine Science for Policy and Education (1997), the Thomas Jefferson Medal for Outstanding Contributions to Natural Science (2003), Virginia's Life Achievement in Science Award (2003), VIMS' Lifetime Achievement Award (2004), and many others. In 2004, the General Assembly passed legislation naming the VIMS library in Dr. Hargis' honor.

Born in 1923 in Virginia's southwestern corner, Hargis fell in love with Chesapeake Bay during childhood summers at his maternal grandparents' house on Tangier Island. "In those days everyone traveled by water," said Hargis in 2003. "I'd take the Red Star out to Annapolis, then the ferry to the Eastern Shore."

The end of the ferry era presaged the birth of VIMS and the start of Hargis' career. The 1952 construction of the Coleman Bridge to replace the York River ferry displaced the Virginia Fisheries Laboratory from Yorktown to Gloucester Point. Hargis began his research career at the re-located lab in 1955, and soon began building bridges of his own.

He became director of the lab in 1959, a time when public awareness of pollution and growing difficulties in maritime industries provided unprecedented challenges in marine science. The onset of oyster diseases that decimated Virginia's harvest was a particularly pressing issue. Hargis responded by expanding VIMS' research mission to include studies of fish and shellfish disease.

"Bill did more than anyone to bring us into the modern era," says Dr. Mo Lynch, a former Hargis graduate assistant and fellow emeritus professor.

One of Hargis' most notable innovations was to formally separate advisory services from research activities and to make the former a crucial part of VIMS mission. Mandated in the Codes of Virginia, advisory services provides VIMS with the opportunity and obligation to offer unbiased scientific advice on decisions affecting Virginia's marine resources and the Chesapeake Bay watershed.

Hargis' leadership placed the institute in an advisory role to the Virginia Fisheries Commission, the State Water Control Board, the Virginia Department of Health, the General Assembly, and industry. International recognition for VIMS soon followed when institute scientists advised the U.S. State Department in fisheries negotiations with the Soviet Union, Poland and international treaty organizations.

In 1971, President Nixon appointed Hargis vice chair of the new National Advisory Committee on Oceans and Atmosphere. President Ford later appointed him chair. He was appointed by the governor to serve on the Virginia Economic Development Task Force, Coastal Plains Commission, Mid-Atlantic Biological Task Force, and many other advisory bodies. Dr. Hargis was a consultant to the national Council on Marine Resources and Engineering Development, Office of the Vice President; and consultant to the oceanographer of the Navy.

Lynch noted that one of Dr. Hargis' most notable accomplishments on the national scene was his role in the early 1970s as a champion of coastal and estuarine studies at a time when most other institutes and scientist were making a push toward open-ocean, "blue-water" oceanography. "Bill's focus on coastal-zone issues helped guide the direction of the national Sea Grant program and led to his appointment as first Chair of the Coastal States Organization," Lynch said.

Hargis stressed the importance of education, personally recruiting many students to the institute and researching large public audiences through bulletins, talks and television appearances. He established master's and doctoral programs in marine science, greatly increasing enrollment and initiating VIMS' current relationship with the College of William and Mary.

"When Bill returned from legislative meetings he would brief the students," says Lynch. "That gave them the big picture of how things work. I think that's why so many of those students went on to prominent positions in academia and government." Hargis also believed in educating himself. He took time from his position as director to study scientific Russian at William and Mary. He received his master's degree at the University of Richmond in 1951 and a Ph.D. from Florida State University in 1954.

Sometimes overshadowed by his reputation in national and international marine policy circles, Hargis also enjoyed a long career as an internationally renowned marine parasitologist. A study of parasitic worms in fishes from around the world led Hargis and his students to Australia, New Zealand, the Antarctic and Africa. Within this context, he served as chairman of the U.S.-U.S.S.R. Cooperative Studies of the World Ocean, one of the first programs to open scientific doors in the Iron Curtain.

After retiring as director in 1981, Hargis resumed research, this time focusing on the role of fish cataracts and lesions as indicators of estuarine pollution, and the role of oyster reefs in Bay ecology.

Current Dean and Director John Wells said Hargis' legacy "will continue for years to come because of the decisions he made to advance marine science, and most importantly, the people he supported at every level during his long and productive career."

To continue Hargis' love of education and the environment, his family requests memorial contributions be made to the Hargis Library Endowment or Hargis Student Scholarship Fund at VIMS.

David Malmquist is communications director at the Virginia Institute of Marine Science.

From: Bay Journal, January 2009

Three Fellows Honored

The 14th Annual Meeting of the North Pacific Anadromous Fish Commission (NPAFC) was held at the Washington Convention and Trade Center in Seattle, Washington from November 17 to 21. NPAFC was established by the Convention of Anadromous Stocks in the North Pacific in 1993. Canada, Japan, South Korea, Russia and the United States are members of the Commission which provides for the conservation of Pacific salmon and ecologically-related species and serves as a venue for cooperation in, and coordination of, enforcement activities and scientific research in North Pacific waters. NPAFC replaced INPFC (International North Pacific Fisheries Commission) when it was dissolved in 1992 after 40 years – its membership was Canada, Japan and the United States.

On the day of NPAFC's First Plenary Session, the United States delegation hosted a reception at the Seattle Aquarium to honor the international visitors. U.S. Commissioner Gary T. Smith welcomed the participants and invited guests. Robert D. Mecum, Acting Regional Director of the Alaska Region and Head of the U.S. Delegation reviewed some of the international efforts to conserve salmon in the North Pacific and proposed, that at future meetings, the host country recognize individuals who contributed in special ways to these efforts. To initiate this practice, he named six people who had been invited to the reception and gave each a "Certificate of Recognition". Among the recipients were three who are members of AIFRB: Bud Burgner who received AIFRB's "Outstanding Achievement Award" in 1991, and AIFRB Past Presidents Bernard E. Skud (1982-84) and Jack Helle (1991-92).

All three of these recipients are retired: Burgner was the Director of the Fisheries Research Institute of the University of Washington; Skud was Director of the International Pacific Halibut Commission and of INPFC, and Helle was Program header at the Auke Bay Laboratory of the NOAA's National Marine Fisheries Service in Alaska.

Submitted by: Bernie Skud

Revised Salmon Treaty

(Juneau) – The Pacific Salmon Commission (PSC) announced an agreement on a ten-year extension of fishery arrangements under the Pacific Salmon Treaty. The agreement addresses a number of salmon fisheries in Southeast Alaska, including those near the British Columbia/Alaska border and on several rivers that cross between the two countries.

The Pacific Salmon Treaty, first signed in 1985, is a bilateral agreement under which the U.S. and Canada co-operate on management, research and enhancement of Pacific salmon that swim through the waters of both countries. Under the treaty, fishery arrangements put in place in 1999 expired at the end of December, 2008.

“Ten years ago, the commission had a much more difficult time reaching agreement, and the final negotiations had to be conducted at a government-to-government level,” David Bedford, Alaska’s representative on the PSC, said. “This time, the Commissioners, along with stakeholders and fisheries management staff up and down the coast, worked hard to conclude an agreement within the Commission process, and this ensured participation by the state and the affected people, organizations and communities.”

“Throughout nearly two years of negotiations, the State of Alaska worked in close coordination with fishery representatives,” he continued. “While we had to make some sacrifices to reach this agreement, we were convinced that this is a responsible agreement that provides stability for our fisheries and helps ensure the long-term health and sustainability of shared salmon resources.”

For Chinook salmon, the most complex of the species covered under the treaty due to the geographic scope of their migration, the revised agreement:

- Maintains the fundamentals of the abundance-based management system established in 1999, which mandates that harvests vary up and down with productivity of the stocks, and had provided substantial benefits to Alaska fisheries.
- Recognizes that Chinook stocks in the area covered by the treaty vary in status with many being healthy and abundant while others are considered to be stocks of concern.
- Recognizes the depressed status of a number of stocks originating in southern B.C. and the U.S. Pacific Northwest (some of which are listed under the U.S. Endangered Species Act), and reduces the allowable Chinook catch levels for fisheries in fisheries off the west coast of Vancouver Island in B.C. by 30%, and in Southeast Alaska by 15%.
- Requires the Commission to review the need for the continuation of these levels of reduction in 2014.
- Contains provisions to fund and conduct important programs to obtain additional information critical to conservation and fisheries management which will be of value in the 2014 review. The funding includes \$10 million over 5 years to better account for salmon escapement and \$15 million for improvements in fishery monitoring.

“The catch reduction is a tough position for us to accept,” said Bedford, “but those of us who have been working hard on these talks, including representatives of southeast Alaskan fishing interests, recognized that there are expressed conservation concerns for a number of stocks should help answer questions about their status and significantly contribute to the review of the reduction what will take place in 2014.”

For other Alaskan fisheries covered by the Treaty, the agreement revised fishery provisions for terminal area and in-river sockeye, coho, and Chinook fisheries on the Stikine, Taku, and Alsek rivers. The agreement builds upon the current abundance-based management system for conservation and harvest sharing, provides for additional harvest opportunities for sockeye through responsible stock enhancement on the Taku and Stikine rivers, and addresses possible future opportunities for fisheries on the Alsek River after coordinated stock assessment work.

For relevant fisheries in the boundary area between northern British Columbia and southern Southeast Alaska, negotiators recognized that the fishery arrangements established in 1999 are working well, and the new agreement extends those terms for another ten years. Key provisions in this area relate to the catch ceilings established for some B.C.-bound sockeye stocks harvested in the commercial seine fishery near Noyes Island and the commercial gillnet fishery at Tree Point.

The Pacific Salmon Commission action is a recommendation to the U.S. and Canadian governments for formal approval. There are domestic processes in the respective countries that will take place in ensuing months, with the goal of having the revised fishery arrangement in place by January 1, 2009. In the U.S., the process for final approval by the State Department includes analysis by the National Marine Fisheries Service that the fishery arrangements meet Endangered Species Act requirements.

Submitted by: Bernie Skud

The Missouri River is Sinking

The Associated Press

Kansas City, Mo. — As engineers try to figure out why the Missouri River is sinking, the phenomenon threatens to damage billions of dollars in property, weaken levees and bridges.

The problem will also expose navigation hazards such as sunken piers and underwater pipelines.

The so-called “degradation” process is not affecting the amount of water in the channel.

The water is physically lower on the Earth because the river bottom is washing away.

Researchers do not know exactly why the channel is sinking in places from southeast Nebraska to St. Louis, but possible causes include natural erosion and the effects of man-made structures such as dams.

But the greatest risk is to infrastructure such as bridges.

When the river bed erodes, it exposes more of the pylons that hold up bridges. That reduces the support the foundation gets from being buried in the ground.

For instance, a bridge designed to have its pylons buried 10 feet in the river bed might now be buried only 8 feet deep. If not corrected, the erosion can increase the risk for collapse.

Also at risk are levees such as those separating the Missouri River from an estimated \$20 billion in developments, including Kansas City's downtown airport, a General Motors plant and the suburb of North Kansas City. The start of the most rapid decline seems to be the 1993 flood, which took several feet out of the river.

Compounding the problem has been a drought that also reduced river levels.

From: Sun Journal, New Bern, NC — Friday, February 6, 2009

Tightening the Screws on South Atlantic Reef Fishing

Measures	Current	Proposed in Amendment 16
Recreational		
Grouper aggregate bag limit	5 fish	3 fish
Gag/black grouper bag limit within aggregate	2 gag or black grouper (combined)	1 gag or black grouper (combined)
Vermilion snapper bag limit	10 fish	5 fish
Shallow-water grouper* closed season	None	January - April
Vermilion snapper closed season	None	November - March
Commercial		
Shallow-water grouper* closed season	March-April (gag/black grouper)	January-April (all shallow-water* grouper)
Gag quota	None	352,940 lbs. gutted weight

*Gag, black grouper, red grouper, scamp, red hind, rock hind, coney, yellowfin grouper, yellowmouth grouper, and tiger grouper

Although an interim rule to implement a spawning season closure for 2009 was not approved, the National Marine Fisheries Service is currently reviewing Amendment 16 to the Snapper Grouper Fishery Management Plan. Approved by the Council in September 2008, the amendment includes long-term measures to address overfishing for gag and vermillion snapper, including a spawning season closure for shallow-water grouper. NMFS will receive public comment on Amendment 16 until February 23, 2009. Electronic comments should be submitted via www.regulations.gov. Additional information on how to submit written comments and copies of the amendment are available at www.safmc.net.

Note: An updated stock assessment for vermillion snapper completed in October 2008 indicated the stock is still experiencing overfishing, but at a level lower than originally estimated. As a result, the Total Allowable Catch (TAC) for vermillion snapper has been increased, resulting in slightly less restrictive measures than originally proposed in Amendment 16. The table reflects the updates and provides current measures being considered for public comment by the NMFS.

From: South Atlantic Update, Winter 2008

Take Marlin Off the Menu

Many marlin and sailfish stocks are in bad shape, yet they are harvested, exported and imported throughout the world. In July 2007, the International Game Fish Association (IGFA) commissioned a report on the Economic Analysis of International Billfish Markets. What we found surprised us. According to the United Nations Food and Agricultural Organization, the USA is the world's leading importer of billfish (swordfish are not considered billfish). Currently in the US it is illegal to harvest or sell Atlantic-caught marlin or sailfish. However, it has been thought for some time that the Pacific billfish market fueled an illegal black market for Atlantic-caught marlin and sailfish. Our report confirmed this as there are records of billfish products originating from countries that have no Pacific access. In addition, the Certificates of Eligibility that attest that billfish products entering the US originated from the Pacific are not pursuant to reporting to any governmental body. The United States' ranking as the world's leading importer of billfish may lead you to believe that this billfish trade yields significant benefits to the economy; however, the results of our study found otherwise. In total, the US billfish trade industry represents approximately \$23.5 million in annual income. Put in perspective, this is only .07% of the \$32.9 billion generated by all seafood industry activities in the US annually. So, not only is billfish harvest and trade bad for ailing marlin and sailfish stocks, economically the revenue generated from it is merely a veritable "drop in the bucket" of the entire US seafood industry. Put simply, there's no good reason for the US to harvest or import billfish.

Since early 2008, the IGFA has been partnering with the National Coalition for Marine Conservation and The Billfish Foundation in an ambitious and aggressive campaign to ban the sale and importation of billfish in the United States. Marlin and sailfish are just too vulnerable and worth too much to recreational anglers to end up on restaurant menus or in grocery store freezers.

This campaign will require considerable publicity and media coverage as we educate the American populace about the current status of billfish stocks and the need to cease commercial harvest. Specific components of the campaign will include: developing an interactive website, building relationships with celebrity chefs around the county, creating press releases and media kits, working with key constituents, and educating US lawmakers and other decision makers. Additionally, our organizations will be working with individuals organizations in Central America to help slow the "supply side" of this problem.

Collectively, we can all make a difference. To find out more please visit http://www.takemarlinoffthemenue.org/How_You_Can_Help).

From: International Angler 71(1), Jan/Feb 2009

Sharks

Ocean Conservancy was dismayed when delegates to the Northwest Atlantic Fisheries Organization annual meeting in September failed to adopt effective conservation measures for the region's threatened thorny skates and porbeagle sharks. Against scientific advice, the international governing body approved an excessive quota for skates and passed the buck on addressing unsustainable porbeagle fishing. "Once again, managers have failed to heed scientific warnings for some of the North Atlantic's most vulnerable fish," said Ocean Conservancy's Sonja Fordham. "The thorny skate quota is twice the level recommended by scientists for population recovery."

On a brighter note, the International Union for the Conservation of Nature (IUCN) World Conservation Congress brought new hope for sharks. Delegates overwhelmingly adopted three resolutions aimed at encouraging international conservation action for sharks and ending wasteful finning (slicing off a shark's fins and discarding the body at sea). Ocean Conservancy was the lead proponent of a resolution that received 100 percent of government votes. Ms. Fordham also participated in a well-attended workshop on improving key shark fishing policies of the European Union. "The high level of attention to sharks reflects growing recognition of the urgency for stronger controls on shark fishing and finning," commented Fordham. "We are encouraged by the common ground identified at our workshop and by the resounding success of the three shark conservation motions."

From: Ocean Conservancy, Winter 2009

Pacific Council Adopts Alternatives to Reduce Thresher Shark Catches

At its September 2008 meeting, the Pacific Council adopted a range of alternatives, to reduce recreational and commercial catches of thresher sharks and other pelagic shark species managed under the Highly Migratory Species Fishery Management Plan (HMSFMP). In June, the Highly Migratory Species Fishery Management Plan (HMSFMP) expressed concern about the expanding recreational fishery for thresher sharks in the Southern California Bight, and recommended that the Council consider new management measures for the fishery. The Council's action includes measures for commercial fisheries that may take HMS sharks. The Council was to select a preferred alternative at its November meeting in San Diego, California.

The preliminary preferred alternatives are: a) a seasonal closure for all HMS commercial shark fisheries south of 34° 27' N latitude that is generally the same as the current drift gillnet fishery closure (the drift gillnet fishery is closed 0-200 nm February 1 to April 30 and 0-75 nm May 1 to August 14 from the U.S.-Mexico border to the U.S.-Canada border); and b) a seasonal closure for the recreational HMS shark fishery for the entire state (U.S.-Mexico border to California-Oregon border) during that same time period, February 1-August 14, 0-200 miles.

Other alternatives recommended by the HMSMT were adopted by the Council for analysis:

No Action: No new management measures.

Spring Recreational Thresher Shark Fishing Closure: No fishing for or possession of thresher sharks south of Point Conception (out to 200 nm), April 1-June 30.

Daily Bag Limit: The current California daily bag limit would be reduced according to one of the following options: a) one shark per angler per day (one shortfin mako, one common thresher, one pelagic thresher, one bigeye thresher, or one blue shark); b) one shark of each HMS shark species per angler per day (no more than one shortfin mako, one common thresher, one pelagic thresher, one bigeye thresher, and one blue shark); or c) one thresher shark per boat per day.

Seasonal Limit: This alternative includes a range of one to five thresher sharks per angler per calendar year as options. A season limit could require anglers to use a punch card that would be marked for each shark landed, in order to collect data on catch and effort for thresher shark fishing. Another possibility is big game-type tags that would be affixed to any shark that is retained. This allows tracking of catches while also limiting harvest, since the tags would have to be obtained from the management agency (presumably the California Department of Fish and Game, if the program is administered at the state level.) A season limit could be combined with a daily bag limit so, for example, an angler could only land one shark per day and a maximum of five sharks per year.

Gear Modifications: Require anglers to use circle hooks when targeting HMS sharks. Currently, anglers commonly use J-hooks and a strategy that results in tail-hooking. Because the shark can be dragged backwards through the water for a long time before it reaches the boat, this method is thought to result in a high mortality rate. According to Bob Osborne, Highly Migratory Species Advisory Subpanel member and United Anglers of Southern California representative, several innovative anglers use circle hooks, teaser lures, and alternative weighting systems to reduce the incidence of tail-hooked sharks.

Mandatory Data Reporting Requirement for all West Coast HMS shark Fishing Tournaments: In addition to enhancing the accuracy and reliability of the California Recreational Fisheries Survey estimates, tournament data would be separately reported in the annual HMS Stock Assessment and Fishery Evaluation reports.

When taking final action in November, the Council could was to confirm their preliminary choice of preferred alternatives, or based on public comment, modify those alternatives or choose one or more of the other alternative recommended by the HMSMT and adopted for public review by the Council.

From: Pacific Council News, Fall 2008

California Steelhead Retain Protection

Hatchery v. Wild Argument Crops Up Again

Loggers, irrigators, and others who resent and resist regulations that limit their activities have lately been arguing that salmon and steelhead reared in fish hatcheries are the same as their wild cousins and therefore that no salmon or steelhead deserve protection under the Endangered Species Act because they are plentiful.

An overwhelming scientific consensus says otherwise, however. Hatchery fish do not survive or reproduce anywhere near as successfully as wild fish. And wild fish need rivers with clean, cold water in them. Therein lies the rub.

Two previous lawsuits, one in Seattle, the other in Portland, elicited judgments that wild and hatchery salmon and steelhead must be counted—and treated—separately.

Now a third ruling, from a judge in Fresno, has echoed the two previous rulings: California's wild steelhead must be left under the protective umbrella of the Endangered Species Act. There were actually two cases involved. One was a straightforward argument that wild and hatchery fish are the same. The other presented the novel, and somewhat far-fetched, argument that it would be OK to let wild steelhead disappear because native rainbow trout in the same streams might take their place.

Steve Mashuda of Earthjustice represented Trout Unlimited, the Center for Biological Diversity, and the Northern California council of the Federation of Fly Fishers in the litigation. — Tom Turner

From: In Brief, Winter 2008/2009

Protecting 'the Galapagos of North America'

Electronic vessel monitoring is helping keep fishermen out of protected areas in the Gulf of California.

Jacques Cousteau called the Gulf of California "the Galapagos of North America." In this narrow, 930-milelong stretch of water between the Baja Peninsula and mainland Mexico, six of the world's whale species reproduce and giant manta rays swim alongside the world's smallest dolphin and 800 species of fish.

To protect this ocean oasis, the Mexican government created a number of marine reserves. But without personnel to monitor remote areas illegal fishing continued, threatening the gulf.

A study by Environmental Defense Fund scientists concluded that electronic tracking devices on boats would work better, so they took their case to Mexico City.

In 2004, Mexico began installing vessel monitoring systems on boats in the Gulf of California. The experiment was a success, and in 2008 a law went into effect requiring the systems on all large fishing boats in Mexican waters. If a boat enters a restricted area, an alarm is triggered on land. Fishermen like the monitoring system because it enhances communication at sea.

Now we're working to improve enforcement. EDF (Environmental Defense Fund) has also teamed up with local fishermen, government agencies and other nonprofits to spread environmentally sound fishing practices.

"The Gulf of California is like no other place on Earth," says EDF ecologist Dr. Rod Fujita. "We want this amazing ecosystem to support ocean wildlife and fisheries—and renew the human spirit, for generations to come."

From: Solutions 40 (1), January 2009

Alaska, Northern

Alaska, Southeast

Arizona - New Mexico

California, Northern

California, Southern

Capital

Carolinas

Vacant

Florida

Great Lakes, South Central

Gulf of Mexico, Northeast

Vacant

Keystone

New England

Oregon-SW Washington

Vacant

Texas

Washington, NW

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, Havoclock, NC 28532, feeshdr@embargmail.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, CA 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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VOL. 38, NO. 2

MARCH-APRIL 2009

President's Message

Bill Franzin, President of the American Fisheries Society (AFS) and a new member of the AIFRB, is working to produce a statement of the AFS position on the stewardship of fish and fisheries in our changing environment. Policy papers that represent a consensus of any large group are difficult to produce, and a policy on climate change and fish is an exceptional challenge. Colleen Caldwell from USGS Co-op Unit New Mexico State University is coordinating the effort. I told Colleen that AIFRB was available to help and she quickly accepted. "I am a member of AIFRB," she said. AIFRB is exactly the kind of organization that fisheries science needs now because it is full of people that have accumulated years of wisdom. A combination of this wisdom and the creativity of young minds in AIFRB make for quite a team. We could consider developing our own policy statements on some key issues in fisheries.

Our book, *The Future of Fisheries Science in North America*, is now available. You can get it at <http://www.springer.com/life+sci/zoology/book/978-1-4020-9209-1> or you can pick it up at a discount at the next AFS meeting, however I do not know the exact discount. Members who submit articles to BRIEFS will be eligible for a free copy. Gene Huntsman will draw one name for each edition and the winner will receive a free book. Steve Cadrin, Brian Rothschild and I are beginning to plan the next conference which will focus on the relative influence of climate and fishing on fish populations. The proceedings will also be published by Springer.

I am struggling to get a copy of our new membership brochure to all members with a goal of each member recruiting at least one colleague into AIFRB. I am struggling in part because winter has not been kind to my garden. An unexpected snowfall at the end of February damaged a number of our rhododendrons, magnolias and other plants. A lot of time on weekends has been spent cleaning up. Rest assured, everyone will get copies soon. Use them!

Dick

Apply Now Research Assistance Award

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 EST on June 12, 2009.

For 2009, four assistance awards will be given. The most meritorious candidate will be designated as the winner of the prestigious Fredin Award.

Golden Anniversary Volume Available

The Future of Fisheries Science in North America

R.J. Beamish, Pacific Biological Station, Fisheries and Oceans Canada, Nanaimo, Canada;

B.J. Rothschild, University of Massachusetts, Dartmouth, MA, USA (Eds.)

Fisheries science in North America is changing in response to a changing climate, new technologies, an ecosystem approach to management and new thinking about the processes affecting stock and recruitment. Authors of the 34 chapters review the science in their particular fields and use their experience to develop informed opinions about the future. Everyone associated with fish, fisheries and fisheries management will find material that will stimulate their thinking about the future. Readers will

be impressed with the potential for new discoveries, but disturbed by how much needs to be done in fisheries science if we are to sustain North American fisheries in our changing climate. Officials that manage or fund fisheries science will appreciate the urgency for the new information needed for the stewardship of fish populations and their ecosystems. Research organizations may want to keep some extra copies for a future look back into the thoughts of a wide range of fisheries professionals. Fisheries science has been full of surprises with some of the surprises having major economic impacts. It is important to minimize these impacts as the demand for seafood increases and the complexities of fisheries management increase.... more on <http://springer.com/978-1-4020-9209-1>

- The first comprehensive book to look at the past, present and future of fisheries science in North America
- Thoughtful interpretations about the complexities of managing fisheries
- Extensive references to past science
- 2009, XVI, 736 p. (Fish & Fisheries Series, Vol. 31) Hardcover; 69,95 Euro; \$89.95; SFr. 116.50; £55.99; ISBN 978-1-4020-9209-1

Volume Foreword

Bill Ricker's advice to fishery scientists was to expect the unexpected. That advice remains true, and this volume goes to considerable lengths to anticipate what might be unexpected. A search of any book of quotations will produce numerous references to the future. Most of those quotations warn of the perils of making predictions about the future. I once read a book about the incredible predictions of the future made during the 1930s, most of which did not come true (Onosko 1979). That is the obvious danger of predictions, but an unlikely one for this volume. For this volume the most useful statement is likely the one attributed to Jason Kauffman, "The best way to predict the future is to create it."

There are few fishery scientists other than Brian Rothschild and Dick Beamish, who could, or would, take on the task of convening the symposium and editing the resulting volume to predict the future of fisheries science in North America. They are remarkably qualified individuals, with unmatched backgrounds in the field, and they have brought together contributions from individuals who are most likely to create that future. Andy Dixon, a person with an uncommon amount of common sense, was my teacher in Agricultural Science classes when I started high school. He once told us that you could understand everything of human behavior when you realize that we are motivated by the desire to be able to say, "I told you so." Perhaps. However, it is clear that the contributors to this volume are quite honestly trying to forecast the future for the sake of fishery science, not just to satisfy any self-serving needs. Most of the contributors have more than enough personal experience to realize the importance of their science.

The volume is directed to fishery science in North America, and so it will set the standard for others to follow. Of course there are specific details and peculiarities to North America because of simple facts of geography, history, and politics. The sweep of the coverage demonstrates that such a volume could hardly consider anything more than this geographic area. Were it to attempt to cover the rest of the world, the fabric would be stretched so thin as to be little more than vague generalities or simple platitudes. In contrast, this volume combines both breadth and depth, from molecular genetics to remote sensing techniques, from climate change to socioeconomics.

It is always useful to ask what elephants are in the room, and this volume does that in several ways. We are all familiar with the story of the blind men, each of whom attempts to describe an elephant, based on his own limited individual experience of one small part of the creature. Here we have a number of informed experts in the field, each commenting of individual perspectives, and from that combination we can assemble an image of the biggest elephant - fishery science. But there are also a number of smaller elephants already with us. Aquaculture and fish farming will not only remain a regional concern but will also increase in importance with proposals for marine aquaculture and the development of broader international marketing. Biodiversity seems to be an omnipresent consideration in North America, even though there is as yet limited agreement on how to apply or to even define the concept. Ecosystem management is on every agenda; however it might be applied. Climate change is probable better established in fishery science than in many other areas through the contributions of Dick Beamish and his colleagues, but the implications for fishery science remain to be determined.

This volume should be read as a detailed advice column. It contains advice to young scientists in the form of recommendations to develop their expertise in risk assessment, spatially explicit models, statistics, interdisciplinary collaboration, and bioeconomic models of sustainability in addition to their obvious background in fishes and fish biology. The volume also has advice for politicians, senior scientists, resource managers and, most importantly, the general public. In some cases this advice takes the form of necessary "recipes," as for example detailed updates on techniques ranging from molecular genetics to remote sensing and quantitative ecological modeling. In other cases the advice is informed opinion from those who have reviewed their areas of expertise and developed clear predictions for the future. Coverage includes both marine and freshwater systems and a range of species from high profile examples to those yet to gain broad public attention.

Several noteworthy themes emerge. It is clear that climate, biodiversity, remote sensing, and monitoring will be major focal points for fishery science. Ecosystem-based management is a given for almost everyone, and various contributors offer specific advice on how best to adjust to that paradigm. Fishery science will undoubtedly continue to grow and develop and to incorporate

new technologies, methodologies, and application. There are very clear messages for the growing importance of broader collaborations and interdisciplinary approaches for fishery scientists. Economics and conservation are two of the major areas that must be incorporated in the future.

If we start with advice from Bill Ricker perhaps we should consider his example. He certainly had an ecosystem view, and was an accomplished naturalist with an incredible diversity of expertise in botany, entomology, languages, literature, and astronomy, as well as a strongly quantitative approach (Ricker 2005). We need to realize that this volume is not a roadmap; it is a GPS unit. Editor, Springer Fish and Fisheries Series

Dr. David L. G. Noakes, Professor of Fisheries and Wildlife, Senior Scientist, Oregon Hatchery Research Center, Oregon State University, Corvallis, Oregon, USA

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Fellow Bortone To Mange Gulf Council Affairs

Dr. Steve Bortone has been named Executive Director of the Gulf of Mexico Fishery Management Council.

Bortone, who received his Ph.D. in marine sciences from the University of North Carolina-Chapel Hill, will be leaving his post as Director of the Minnesota Sea Grant College Program in Duluth to join the Council in May. No stranger to Florida, Bortone's extensive experience includes serving as director of three research laboratories there. He also served more than 27 years as a faculty member in the biology department at the University of West Florida.

He is looking forward to returning to the area and taking on new challenges.

"My first priority will be to become familiar with my staff - they're the backbone of the organization," he said.

His second priority is "to learn from them as much as I can," he said.

Tom McIlwain, Council Chair, welcomed Bortone as the new Executive Director.

"Dr. Bortone has a long history of involvement in the fisheries of the Gulf of Mexico as a fishery researcher, and his strong educational background in fisheries of the Gulf of Mexico will allow him to hit the ground running," said McIlwain.

Bortone has also served as Visiting Scientist at The Johannes Gutenberg University and has conducted extensive field surveys with colleagues from La Laguna University in the Canary Islands.

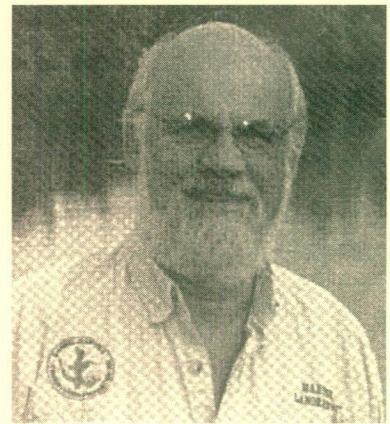
McIlwain said he looks forward to Bortone assuming the duties of Director.

"Dr. Leard and Council staff have done an excellent job managing the tasks of the Council during this past year, and while we've done a good job of moving forward, it'll be nice to have Steve sitting in the Director's chair," he said.

Bortone and his wife Shelby have four children and three grandchildren, and plan to move to the Tampa Bay area in the spring.

They look forward to resuming treasured activities, such as bike riding, boating, and fishing.

From: Gulf Fishery News, January-March 2009



Fellow Methot receives Gold Medal Provides Quantum leap in Stock Assessment

NMFS scientist Richard Methot is recognized as an international leader in development of a groundbreaking approach to assess status and trends of exploited fishery resources. Methot was recently awarded the Department of Commerce Gold Medal for developing Stock Synthesis 2 (SS2), a sophisticated statistical model used to conduct high quality stock assessments in a great diversity of biological situations and availability of data. Stock assessments are critical to estimating the abundance and mortality of harvested fish stocks and forecasting the level of future catch that will prevent overfishing and sustain a productive fishery.

The challenge to improve the reliability of stock assessments

The Magnuson-Stevens Act (MSA) requires using the best available science to help managers set limits on fish catch and prevent overfishing. Before SS2, the differences between available stock assessment models produced results that varied in complexity and reliability, leaving NOAA vulnerable to challenges from stakeholder groups. The Government Accountability Office (GAO) recommended that the agency take steps to improve the quality of data used in stock assessments and improve its models to quantify the uncertainty of the results.

SS2 model is a quantum leap

Methot has a long history on involvement with development of a class of fishery models called "Integrated Analysis", beginning with his work on anchovy in the 1980s at the Southwest Fisheries Science Center and West Coast groundfish at the Alaska Fisheries Science Center in the 1990s. Integrated analysis models provide a comprehensive, statistical framework to analyze fishery and survey data. They have a core population dynamics model, an observation model that links the population model to the kinds of data available, and a statistical model that compares the actual data to the model's predictions and adjusts parameters of the model to obtain the best fit and then proceed to produce estimates tailored to the needs of fishery managers.

"Stock Synthesis 2 represents a quantum leap in the capability of these models to analyze a tremendous diversity of data availability," Methot says, "and to produce quantitative evaluation of the uncertainty associated with the model forecasts." It's flexible formulation allows it to analyze a simple time series from a single fishery, or to analyze a complex multiple area situation with numerous fishery types, thousands of age and size observations, and even tag-recapture data. SS2 also bridges to ecosystem models by allowing model parameters to change over time in response to changing environmental and ecosystem conditions. The features built into SS2 are ideally suited to providing more accurate estimates of fish abundance, understanding the population dynamics of harvested fish species, and forecasting annual catch limits while also calculating the degree of uncertainty. This provides exactly the information needed to implement fishery management plans under the MSA and Magnuson-

Stevens Re-authorization Act of 2006, which requires annual catch limits to be set for all US fisheries (approximately 530 stocks) beginning in 2011. Ultimately, the use of SS2 will help managers prevent overfishing, guide rebuilding of previously overfished stocks, and achieve optimum yield from fisheries.

SS2's global impact on fishery resource assessments

Methot's contributions with the SS2 model represents a major advance in fisheries science, allowing users to make accurate estimates of fish abundance in less time for multiple species. In less than three years, SS2 became a leading international stock assessment tool, and is adopted as a standard model by several fishery assessment programs around the globe. In 2005 SS2 was used to assess an unprecedented 19 stocks of West Coast groundfish, contributing to a doubling in the number of assessments completed and revised from the previous year. By 2007, use of SS2 expanded to comparable groundfish species in Alaska and Australia, as well as California pelagic fish and tuna and billfish throughout the Pacific. This year Methot and colleagues began exploratory analyses for several Atlantic Species, including king mackerel and summer flounder. Recent presentations by Methot on SS2, soon to be SS3 in 2009, were at the 50th anniversary symposium in 2007 of the American Institute of Fishery Research Biologists of Seattle, WA, and at the 5th World Fisheries Congress of Yokohama, Japan in 2008.

Submitted by: Allen Shimada

Member Passes



Leon Gerard Antoine Verhoeven

12/6/1912-2/5/2009

Leon Verhoeven, age 96, passed away on Feb. 5, 2009, at Oatfield Estates in Milwaukie, WA. He died a natural death of old age, surrounded by his loving family. Leon was born on Dec. 6, 1912, in Calgary, Alberta to recent Belgian and Dutch immigrants Leon Norbert and Andrea Kerstens Verhoeven. In his early teens the family moved to Everett, Wash., where Leon completed high school and as their only child, helped care for his ailing father. He worked numerous jobs including a long stint at Richfield Oil where he played on their company baseball and basketball teams. During these years, his passion for fishing and the sea led him to study biology and fisheries at the University of Washington. Summers were spent in Alaska working for the U.S. Dept. of Fish & Wildlife on research projects. He completed his bachelor's degree summa cum laude in 1942 and was married in June of that year to Alice Margaret Luebke of Everett. Shortly afterward he enlisted in the U.S Navy and served his country for the duration of World War II as a communication officer (2nd Lt.) on a variety of ships, seeing duty in the

Atlantic, Mediterranean and Pacific theatres. After the war he settled down with Alice in Seattle, where he worked for the University of Washington Fisheries Research Institute and College of Fisheries as a research associate professor. They had four children, Margaret, David, Thomas and Paul and a full life of family, friends and career. In 1957 Leon accepted a position with the International Pacific Salmon Fisheries Commission and moved the family to North Surrey, British Columbia. In the early decades of his career he loved the long field assignments in Alaska and the interior of British Columbia. These trips shaped in him convictions about the necessity for conservation of wild and natural environments that could be balanced with a healthy commercial fishing industry. The family relocated to Portland in 1963 when Leon was chosen to be the executive director of the Pacific Marine Fisheries Commission. He held that job until his retirement in 1971, after which he practiced as a consulting fisheries biologist. For a number of years in the '70s and '80s he also taught courses in fisheries at Mt. Hood Community College as a part-time instructor. He was a member of Sigma Xi, Pacific Fishery Biologists, American Fisheries Society, American Institute of Fishery Research Biologists, and the American Association for Advancement of Science. In his private life Leon was a quiet and religious man. As a lifelong Roman Catholic, he attended Mass at St. Cecilia's in Beaverton for many years. In his retirement he volunteered often for St. Vincent de Paul and Meals on Wheels. He also fished. Fishing was an escape from his cares and a time for tranquility and a time to be alone. In the course of his life he cared for many relatives in times of need and in their last years. Family meant everything to him and he gathered all the relatives he could around the holidays. After 50 years of marriage his beloved wife Alice was lost to breast cancer and Leon suffered the loss terribly. His hobbies helped carry him through; he continued to fish and never came home empty handed. His garden was a joy to him also, as he loved being outdoors tending his roses, fruit trees, vegetables and rhododendrons. Leon is survived by his four children, Margaret Armstrong of Aloha, David Verhoeven of Portland, Thomas Verhoeven of Albany and Paul Verhoeven of Portland; as well as eight grandchildren; and eight great-grandchildren. At 96 years he had outlived almost all the other members of his generation. A Mass was held on Feb. 9 at the Mission of the Atonement in Beaverton and he was laid to rest at Sunset Memorial Park, Portland, OR. Memorial donations may be sent to Oregon Food Bank, Loaves and Fishes, or St. Vincent de Paul Society at St. Cecilia in Beaverton.

Submitted by Allen Shimada

Northern California District at Work

Student Paper and Poster Judging at AFS CalNeva Chapter Annual Meeting

For the ninth straight year, the Northern California District of the American Institute of Fishery Research Biologists (AIFRB) presided over the judging of student presentations and posters at the 2009 AFS CalNeva Chapter Annual Meeting that took place April 1 through 3, 2009, in Santa Rosa, California. Student papers and posters were in the running for cash prize awards, including \$100 each for Best Student Presentation and Best Student Poster. Best Student Presentation – Runner-up, and Best Student Poster – Runner-up each were awarded \$75, with third place in each category receiving \$50. All winners received a certificate signed by both organizations (CalNeva Chapter AFS, and Northern California District AIFRB).

The 2009 award winners were:

Best Student Presentation:	Tim Mussen, UC Davis
Best Student Presentation - Runner up:	Michael Hellmair, Humboldt State University
Best Student Presentation - Third Place:	Morgan Robinson, University of Nevada
Best Student Poster:	Phil Sandstrom, UC Davis
Best Student Poster - Runner up:	Gerard Carmona, UC Davis
Best Student Poster - Third Place:	Sabra Purdy, UC Davis

Congratulations to the winners and many thanks to the Northern California District judges who participated in the student evaluations.

-Tom Keegan-

Thanks to Tom and His No-Longer-Invisible district. Ed.

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P.S. Timely submission of dues payments will lower the anxiety and extend the service life of our concerned Treasurer. Ed.

Skud Contemplates Societal Economics and Fishery Management

When is a subsidy not a subsidy?

That's the title of an article by Nils Stolpe in the National Fisherman (May 2009, Vol.90, p.5). Stolpe is a regular contributor to NF and often writes about the fishing industry and its trials and tribulations with government rules and regulations. This time he was responding to a paper in the North American Journal of Fisheries Management: *Quantification of U.S. Marine Fisheries Subsidies* by Sharp and Sumaila, Vol.29(1), pp18-32.

When he read this paper, Stolpe was reminded of a phrase (*Fair is foul and foul is fair*) from Shakespeare's Macbeth and he took the authors to task for their selection and definition of some "subsidies". An aspect of particular interest to me, was his questioning that the "\$2.5 billion for state and federal fisheries research" was classed as a subsidy for the fishing industry. (The same question could be raised about the cost of fisheries management.) This is a topic that could be addressed in BRIEFS, i.e. in line with a debate format suggested by G.H. years ago. (Send in your viewpoint.)

Stolpe closed his article in a more familiar vein, pointing out the rewording of the last paragraph of NOAA's press releases. It now reads "NOAA understands and predicts changes in the Earth's environment, from the depths of the ocean to the surface of the sun and conserves and manages our coastal and marine resources". Stolpe claimed that former versions were less arrogant, and simply said that NOAA "works to understand and predict ...". Then turning to the Classics again, he closed with a "hint to our friends in DC", suggesting they read the Iliad, the Odyssey and Macbeth and rethink what they know and what they understand.

Bernard E. Skud

P.S. This submission is in response to Gene Huntsman's note "The Amazing Invisible Districts" (BRIEFS, Jan./Feb. 2009) lamenting the lack of news from the Districts and the membership. He deserves our support and cooperation — 'nuff said, eh? *Thanks Benie! Ed.*

New Arctic Fishery Management Plan

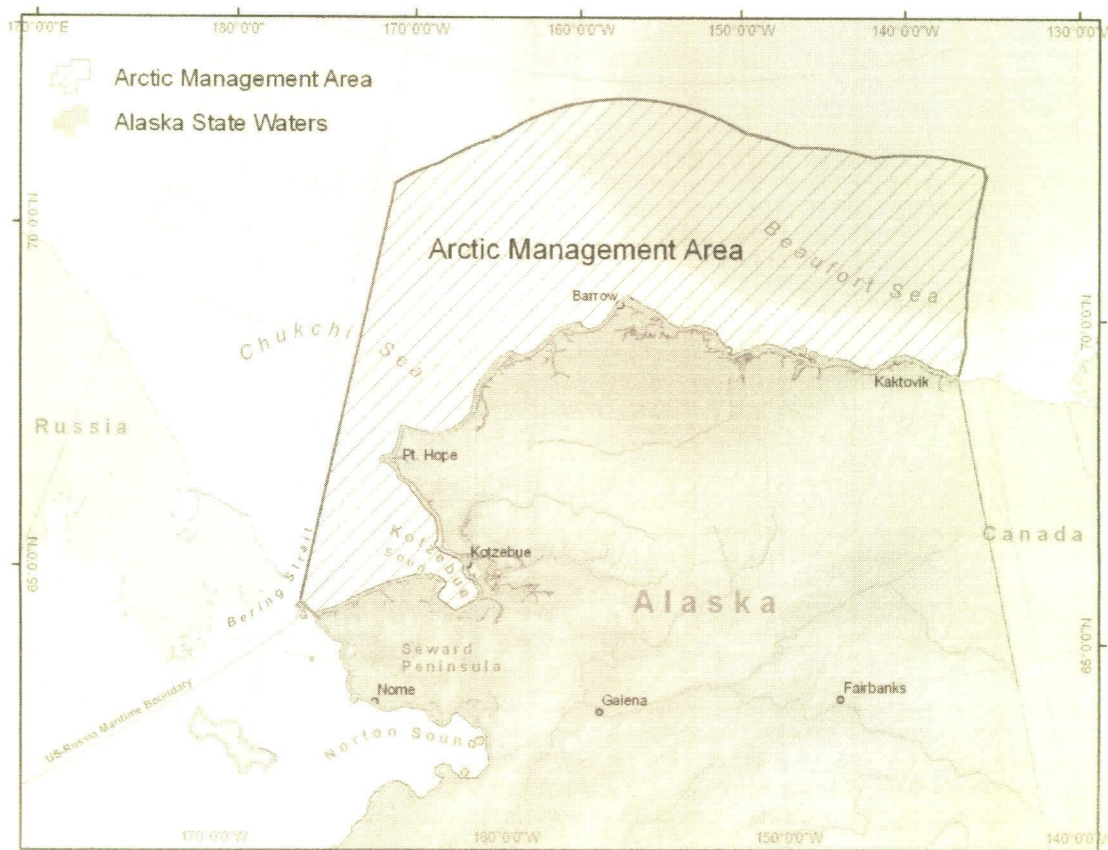
At its February 2009 meeting, the North Pacific Fishery Management Council voted unanimously to adopt a new Fishery Management Plan (FMP) for the Arctic Management Area. The Council partly based its decision on comments and recommendations from its Advisory Panel, Scientific and Statistical Committee, and Ecosystem Committee, as well as many comments from the public. Written comments also were received from thousands of individuals and groups from throughout the world. Of the alternative actions analyzed, the Council selected an alternative that would close the entire U.S. Arctic Exclusive Economic Zone off Alaska to commercial fisheries. The Council established a procedure for initiating a fishery, but not until data are available with which the Council can make an informed decision.

During its deliberations, the Council expressed concern about the potential effects of this action on a reported but largely anecdotal small historic fishery for red king crab in the southeastern Chukchi Sea, and explored this concern with staff and members of the public who are knowledgeable of this historic fishery. The Council's decision includes recognition that any fishery in the Arctic Management Area, including a red king crab fishery, could be considered in the future by the Council either through an FMP amendment process or through the Exempted Fishing Permit process. The latter could offer opportunity for exploratory fishing in localized areas to better determine the nature of any crab resource that might be fished in the future. The Council also noted that this action will not affect future crab fishing in State waters which are managed by the State of Alaska.

The Council also adopted an amendment to the Bering Sea/Aleutian Islands king and Tanner crab FMP to terminate its geographic coverage at Bering Strait, thereby creating a single multi-species FMP for the Arctic Management Area for groundfish and invertebrates. Future consideration of fishery development in Federal waters for groundfish, crab, and scallops would fall under this new Arctic FMP. This action does not affect salmon management (the entire Arctic is closed to salmon fishing under the Council's existing salmon FMP) nor halibut management (the Arctic is closed to halibut fishing; future consideration of halibut fishing in the Arctic Management Area would be under the authority of the International Pacific Halibut Commission). This action also does not affect any subsistence or personal use fisheries or any fisheries prosecuted or contemplated in State waters of the Arctic.

The Council's action will require preparation of a final draft environmental assessment document, revised Arctic FMP text, text to amend the BSAI king and Tanner crab FMP, and draft regulations that will implement the Arctic FMP. This package of documents will be submitted to the Department of Commerce for approval by the Secretary. With that approval, the final regulations to implement the Arctic FMP would be published in the Federal Register. The Council anticipates that the new Arctic FMP could be in place in 2010.

Submitted by: Bill Wilson



An Important New Title

An Inconvenient Trout

Jack Ohman

One of the nation's most influential political cartoonists takes a look at the present state of fly fishing in this long-awaited sequel to the best-selling *Fear of Fly Fishing*. With the wit and satire his nationally syndicated cartoons are known for, Ohman sets his hooks into everything from fishing partners to Eastern versus Western anglers to fly fishing versus golf. This light-hearted book will have any angler, whether new to the sport or veteran, reeling in laughter.

About the Author

Jack Ohman is one of the most widely syndicated political cartoonists in the United States. His work appears regularly in the *Washington Post*, *The Philadelphia Inquirer*, *The New York Times*, *The Boston Globe*, *Chicago Tribune*, *San Francisco Chronicle*, *The Seattle Times*, and scores of other major newspapers. His work has also been published in such magazines as *Newsweek* and *National Review*. *People* magazine has called Ohman's cartoons "uncompromising, the most wicked and the most pointedly funny" on today's op-ed pages. His book, *Fear of Fly Fishing* (978-0-6716-6151-9), hit number five on the *Seattle Times* best seller list. He has been the editorial cartoonist for *The Oregonian* since 1983 and lives in Portland, Oregon.

Product Details

Paperback: 160 pages; Publisher: Headwater Books (September 30, 2008); Language: English
ISBN-10: 097934607X; ISBN-13: 978-0979346071; Product Dimensions: 8.9 x 5.9 x 0.2 inches

A Gift that keeps Giving: Cross Florida Barge Canal

Proposed marina on Rodman reignites Ocklawaha battle

The owners of an RV park in Fort McCoy, FL want to construct a 400-slip boat marina on Rodman Reservoir. To take further advantage of their proximity to the 9,000-acre waterway, the Lake Ocklawaha RV Park's owners also want to lay a 3,757-foot-long, 10-foot-wide shoreline boardwalk. The estimated cost is in the neighborhood of \$2 million, according to the contractor. Opponents assert that the plan, if approved, would severely harm the environment. But it would also prove to be for naught, and thus should be stopped. Since the reservoir will eventually be drained, they maintain, hundreds of fishing boats will - literally - be left high and dry. Yet the project will go forward for now, primarily because the contractor believes the history surrounding the reservoir indicated that the water will be there long after he, and those opposing him, are gone.

Besides reigniting the decades-long battle over the restoration of the Ocklawaha River, the marina proposal has inspired one of the more fevered - and, to a large extent, orchestrated - protest campaigns state water regulators have seen recently. Official state policy, dating back more than a decade, is to remove Kirkpatrick Dam, the construction of which created the reservoir in 1968 by plugging the river and flooding part of the Ocala National Forest. Named for the late George Kirkpatrick, a long-serving state senator from Gainesville, the structure was part of the federal government's attempt to carve a shipping channel across Florida. The Nixon administration halted that effort in 1971, miring the dam in controversy every since.

For four decades, environmentalists who want the river restored have philosophically grappled against anglers who don't want to lose one of the premier bass-fishing sites in Florida. In June 1995, Gov. Lawton Chiles ordered state environmental regulators to file for the permits to take down the dam, and they filed the paperwork in 1997. Dismantling the Kirkpatrick Dam, and returning the Ocklawaha River to its historic channel, has been subsequently supported by the administrations of both former Gov. Jeb Bush and current Gov. Charlie Crist.

Sportsmen, however, have regularly found powerful allies in Tallahassee who have been able to thwart attempts to remove the dam. Lawmakers have flatly refused to fund such an effort, which the Florida Department of Environmental Protection estimates today would cost \$21 million.

Like other plans over the past 40 years that promote or preserve fishing on Rodman Reservoir, the proposed marina has stoked the anger and angst of environmentalists. As of Thursday, state water regulators have fielded more than 510 letters objecting to the project. Those critics make two basic arguments: that the project would intensify the existing degradation of a waterway already impaired by pollution and nitrate build-up; and the marina flouts long-standing state and federal policies to restore the river. Letters have been submitted from individuals around the state, including many from Marion County, and from all corners of the country.

The list of foes also includes the U.S. Environmental Protection Agency, the Marion County Florida Soil and Water Conservation District and the Florida Federation of Garden Clubs. Nick Williams, executive director of Florida Defenders of the Environment, a Gainesville-based environmental group that supports removal of the dam, said St. Johns should deny the marina permit.

"We don't want to spend taxpayer money on a facility that will be torn down," Williams said, "and it is inconsistent with state policy, which is for restoration." But when asked to point out how that interferes with the state's plan, officials from both DEP and the St. Johns River Water Management District declined to comment because the permit application is still pending.

Rebell Investors Corp., owners of the RV park, and Miner's Marine Construction, a Palatka-based dock builder, filed the marina application last June. It has plenty of hurdles to clear. A July 2008 letter from the water management district identified 34 separate points for the applicants to address - one of which was demonstrating they have appropriate land-use approval to proceed from the Marion County Commission. Water regulators, for example, expressed concern about the marina's potential to harm wetlands, increase pollution in the river and affect navigation, among other problems.

But topping their list was water - or the lack thereof. "It is unclear how you would operate the proposed docks during partial or complete drawdown of Lake Ocklawaha or if Rodman Dam is removed, and how much such operation would avoid causing environmental impacts," the letter said. Thus, they wanted the developer to demonstrate that "there is adequate water depth at each dock location" and that the docks have "sufficient navigable access...in the event that Rodman Dam is removed."

The EPA was more blunt. In announcing its opposition to the marina last November, federal regulators, in addition to concerns about water quality, observed that "breaching the Rodman Reservoir dam would result in substantially reducing water level at the proposed marina site, making operation of a marina untenable." Their state counterparts concurred. Stanley Inabinet, the DEP's project manager, said once the river's natural drainage system is restored, "There will not be any water where the proposed to be located once the river has been freed."

The RV park operators could not be reached for comment. But David Miner, owner of Miner's Marine, the contractor for the \$2 million marina, agreed: if the dam goes, there won't be any water - and that is not a problem. His plan is to install four 100-slip aluminum floating docks moored to concrete pilings to accommodate fishing boats up to 20 feet long. "It's like a giant Erector Set," Miner said, noting that the docks are "recyclable." That means if the dam is torn down, the platforms can be unhooked from the pillars and sold for use elsewhere.

Miner also maintains they are more environmentally sound than normal wooden docks because they won't leach chemicals - and would do less harm than releasing the Rodman's nutrient-laden holdings into the St. Johns and Ocklawaha rivers, or forcing boaters to park on the shore because they have nowhere else to tie up their boats.

Just as Miner and Rebell must explain in greater detail to state and Federal authorities how their project won't hurt the reservoir, state water managers and the U.S. Army Corps of Engineers await similar information from the state Department of Environmental Protection, known as DEP. Specifically, the DEP must submit final reports of how the river's health would be affected upon the release of that stored-up reservoir water. It's unclear how long that might take. Osvaldo Collazo, chief of the Corps' northern permits branch, said the file has languished for so long that DEP's application to remove Kirkpatrick Dam has been deactivated.

Even when the DEP report is filed, Collazo said, the Corps must review the plan to issue its own environmental impact statement, which he described as a "fairly long process." So, there is no way to determine how long it would be before the dam would actually be dismantled. "DEP is continuing to design the restoration such that the restoration will have no negative impact to the water quality of the St. Johns River," Doug Tobin, an agency spokesman in Tallahassee, explained. "The design could have a potentially large impact on the river. The water quality studies and action steps are complex, time consuming and require careful review."

And that, in part, is what Miner and the RV park owners are banking on.

From: Ocala, FL Star-Banner March 6, 2009

An interesting summary

Pacific Salmon Species Listed Under the Endangered Species Act

Since 1989, NMFS listed the following 17 Evolutionarily Significant Units (ESUs) of salmon under the ESA:

Species	ESU	Status	Federal Register Notice
Chinook Salmon (<i>O. tshawytscha</i>)	Sacramento River Winter	Endangered	70 FR 37160 6/28/05
	Snake River Fall	Threatened	70 FR 37160 6/28/05
	Snake River Spring/Summer	Threatened	70 FR 37160 6/28/05
	Puget Sound	Threatened	70 FR 37160 6/28/05
	Lower Columbia River	Threatened	70 FR 37160 6/28/05
	Upper Willamette River	Threatened	70 FR 37160 6/28/05
	Upper Columbia River Spring	Endangered	70 FR 37160 6/28/05
	Central Valley Spring	Threatened	70 FR 37160 6/28/05
	California Coastal	Threatened	70 FR 37160 6/28/05
Chum Salmon (<i>O. keta</i>)	Hood Canal Summer-Run	Threatened	70 FR 37160 6/28/05
	Columbia River	Threatened	70 FR 37160 6/28/05
Coho Salmon (<i>O. kisutch</i>)	Central California Coast	Endangered	70 FR 37160 6/28/05
	S. Oregon/ N. California Coastal	Threatened	70 FR 37160 6/28/05
	Oregon Coastal	Threatened	73 FR 7816 2/11/08
	Lower Columbia River	Threatened	70 FR 37160 6/28/05
Sockeye Salmon (<i>O. nerka</i>)	Snake River	Endangered	70 FR 37160 6/28/05
	Ozette Lake	Threatened	70 FR 37160 6/28/05

As the listings have occurred, NMFS has initiated formal consultations and issued biological opinions (BOs) that consider the impacts resulting from implementation of the Salmon FMP, or from annual management measures, to listed salmonid species. NMFS has also reinitiated consultation on certain ESUs when new information has become available on the status of the stocks or on the impacts of the Salmon FMP on the stocks. The consultation standards referred to in this document include (1) reasonable and prudent alternatives, (2) conservation objectives for which NMFS conducted Section 7 consultations and arrived at a no-jeopardy conclusion, and (3) NMFS requirements under Section 4(d) determinations. A list of current BOs in effect, the species they apply to, and their duration follows:

Date	Evolutionarily Significant Unit covered and effective period
March 8, 1996	Snake River Chinook and sockeye (until reinitiated)
April 28, 1999	Oregon Coastal natural coho, Southern Oregon/ Northern California coastal coho, Central California coastal coho (until reinitiated)
April 28, 2000	Central Valley spring Chinook (until reinitiated)
April 27, 2001	Hood Canal summer chum 4(d) limit (until reinitiated)
April 30, 2001	Upper Willamette Chinook, Upper Columbia spring Chinook, Lake Ozette sockeye, ten steelhead ESUs and Columbia River chum (until reinitiated)
April 27, 2004	Sacramento River winter Chinook (April 30, 2010)
March 4, 2005	Puget Sound Chinook (April 30, 2010)
June 13, 2005	California coastal Chinook (until reinitiated)
Expected Prior to May 1, 2009	Lower Columbia River natural coho, Lower Columbia River Chinook

From: Pacific Fishery Management Council Salmon Preseason Report III, April 2009

Stehr vows to repopulate oceans with southern bluefin tuna

Jason Holland

Published - April 23, 2009

Southern bluefin tuna, one of the world's most endangered fish, could be sustainable within two years following a world-first breakthrough by Clean Seas Tuna.

The Australian company produced fingerlings after its broodstock spawned continuously during a 35-day period from March 12 to April 16.

"To cut a long story short, we've cracked it," Chairman Hagen Stehr told IntraFish. "We've got tuna in the tanks that are 2.5 centimeters long. It's unbelievable.

"If you had talked to me on March 11, I would have had a long face and I would have told you it's going to be another seven, eight months," he said. "Then on March 12 it started; the fish began spawning and they kept on spawning for 35 days."

More than 50 million fertilized eggs and 30 million larvae were produced. Thirty days later, Clean Seas had fingerlings and Stehr fulfilled his dream to breed tuna rather than catch them in the wild, and farm them off Port Lincoln.

The breakthrough paves the way for the development of a multibillion dollar tuna breeding and farming industry.

Stehr, however, has greener ambitions. He wants Clean Seas to be the first commercial company to put tuna back in the ocean.

"Our own company is catching 20,000 to 25,000 fish a year. We want to put 10 times that amount back into the ocean," he said. "For every fish we take out, we'll put 10 back in."

"There are a number of hurdles to overcome, but what this means is we could create the world's first truly sustainable tuna fishery, which is quite something in this negative climate. And we will be getting in touch with WWF and Friend of the Sea in due course."

In the meantime, Clean Seas will continue growing the fingerlings for its commercialization program. The plan is to put the tuna into the [closed] water in December or January.

The fish will then grow 10 kilos in 12 months. This weight will double over the subsequent 12 months.

IntraFish asked if 20 kilos would be the market size Clean Seas will aim for, but Stehr declined to comment, saying it all depends on what the market wants.

"I've tasted very small tuna and it can be delicious. We could sell at one or two kilos, but 20 kilos might suit the market better," he said. "Yet we could easily keep on going to 50 to 60 kilos because these fish grow so quickly.

"I hate to sound arrogant, but we had so many people telling us it wasn't possible. But we have now done with bluefin what we did with kingfish. Tuna is of course a lot, lot harder but we've done it."

It seems the market is pleased by Clean Seas success, too. "I've got friends now I didn't know I had. We've got people flying in from America, Scandinavia, Chile, Italy, Spain and England over the next few days," he said. "Port Lincoln won't know what's hit it."

The Australian Seafood Cooperative Research Centre had invested around AUD \$20 million in the project because of its potential to lead to a massive tuna breeding and farming industry.

About 100 researchers worked on the project at different research organizations, including the Fisheries Research and Development Corp.; SA Research & Development Institute; the University of Sunshine Coast; Kinki University in Japan; and the University of Maryland in the United States.

The breakthrough follows claims last week by World Wildlife Fund (WWF) that stocks of Mediterranean bluefin tuna are on the verge of collapse, and the breeding population could be wiped out as soon as 2012.

<http://www.intrafish.no/global/news/article245668.ece>

Submitted by: Allen Shimada

South Atlantic Council Requests Rule to Close Red Snapper Fishery

Closure intended to help meet requirements to end overfishing

The South Atlantic Fishery Management Council voted to request an interim rule for red snapper that would close the fishery in federal waters for both commercial and recreational fishermen for 180 days with a possible extension of 186 days. The request for the closure, directed to NOAA Fisheries Service, is designed to help address overfishing for red snapper until more long-term management measures are implemented. A 2008 stock assessment for red snapper in the South Atlantic region shows the stock continues to be overfished and is **undergoing at nine time the sustainable level**. If approved, it is anticipated the closure would be implemented in late June or early July, 2009.

The controversial decision to request the interim rule was made in a split vote, 7 to 6 after the Council heard public testimony during its meeting in Jekyll Island, Georgia. Fishermen questioned the recent stock assessment and the need for a closure of the fishery, many saying they have observed increases in the number of red snapper, especially along the Georgia and northeast Florida coasts. The stock assessment, conducted through the Southeast Data, Assessment, and Review (SEDAR) process, attributes these increases to strong year classes of red snapper in 1998 and 1999 that have now reached legal size. However, the updated assessment shows the stock continues to be overfished and has been experiencing overfishing since the 1970's.

"There is not a tougher decision than closing a fishery," said Council Chairman Duane Harris. "We've delayed this vote until now, but the law requires that we have measures in place to address overfishing by this July." The Council received notice on July 8, 2008 from NOAA Fisheries Service that overfishing was occurring for red snapper. The Magnuson-Stevens Act requires the Council to develop regulations to end overfishing within one year of notification. As a result, the Council began preparing Amendment 17 to the Snapper Grouper Fishery Management Plan that includes measures to end overfishing and establish a rebuilding plan for red snapper. However, the amendment is currently under development and is not expected to be implemented by the July deadline.

Red snapper are found from North Carolina to the Florida Keys and the Gulf of Mexico. The bulk of landings of red snapper in the South Atlantic come from the recreational fishery. In 1983, a 12" size limit was established for red snapper. Because of concerns for red snapper overfishing, the size limit increased to 20" in 1991 and a recreational bag limit of 2 fish was implemented. These regulations led to many more fish being released by the recreational sector.

The most recent assessment indicates the large number of discards combined with high release mortality rates (released fish that die) is one of the major factors contributing to overfishing of red snapper in the South Atlantic. Release mortality rates are estimated to be 40% for the recreational sector and 90% for the commercial fishery. For example, using landings data from the recreational fishery for 2004 through 2006, an estimated 41,772 red snapper were harvested. However, the estimated number of fish that died when discarded during this period was 73,147, increasing the total mortality to 114,919 red snapper.

For both the commercial and recreational fishery, a reduction of 88% of the total removals (landings and dead discards) is necessary to end overfishing. The additional regulations proposed in Amendment 17, including are closures, will end overfishing. The amendment also includes options for a red snapper monitoring program involving the head boat industry to collect data to be used in future stock assessments. Public hearings for Amendment 17 will be scheduled later this year and it is anticipated the Council will approve Amendment 17 for review by the Secretary of Commerce in late 2009.

"The vote on the interim rule tells what a tough decision this is for the Council," said Chairman Harris. "But because of the law, it's a decision we had to make."

From: South Atlantic Fishery Management Council Press Release March 9, 2009

Farmers and Tribe Agree To Major Puget Sound Restoration Project

Chinook salmon runs in Puget Sound aren't nearly as healthy as they were as recently as 30 years ago. But thanks to an agreement between a local Indian tribe and some Washington state farmers brokered by Earthjustice, things are looking up a bit. The agreement calls for the parties to work together to restore about 200 acres of key saltwater/freshwater estuary habitat in the Skagit River delta, one of the most important salmon rivers in Washington. Farmers long ago installed tidegates that allow the delta to drain during ebb tide but block incoming salt water during the flood tide. These tidegates caused havoc for young salmon that normally linger in the brackish water zone before fully committing to going to sea.

Earthjustice attorney Jan Hasselman brokered this agreement on behalf of the Swinomish Indian tribe after a federal judge declared that the farmers had violated the Clean Water Act and Endangered Species Act by replacing harmful tidegates.—John McManus

From: In Brief, Spring, 2009

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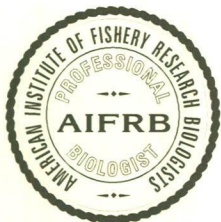
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BRIEFS, the newsletter of the American Institute of Fishery Research Biologists, is published six times a year. It is intended to communicate the professional activities and accomplishments of the Institute, its District, and Members; the results of 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, CA 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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American Institute of Fishery Research Biologists

Promoting excellence in fishery science

... BRIEFS ...

VOL. 38, NO. 5

SEPTEMBER-OCTOBER 2009

President's Message

Feynman wrote that honesty in science is telling intelligent people what they need to know to make intelligent decisions. A problem in fisheries science is that there are a lot of things that we do not understand. Communicating uncertainty to the general public is difficult, particularly in an age of branding. In British Columbia this year we had the poorest return of sockeye salmon to the Fraser river in recorded history. Within weeks, we had what may be the best return of pink salmon in recorded history. British Columbians care about Pacific salmon and these returns are a topic of discussion everywhere I go. The relevance to AIFRB is the need to communicate what we know and do not know about these kinds of issues to a concerned public. I think that AIFRB is well positioned to do this and our Board is working to find ways that our members can tell people what they need to know to make intelligent decisions.

Dick Beamish

W.F. Thompson Award For Best Student Paper Published In 2007

Shannon K. Brewer

Dr. Shannon K. Brewer, a recent graduate of the University of Missouri-Columbia, has won the W.F. Thompson Award for the best student paper published in 2007. Her paper, co-authored with Charles F. Rabeni, Scott P. Sowa, and Gust Annis, is entitled "Natural Landscape and Stream Segment Attributes Influencing the Distribution and Relative Abundance of Riverine Smallmouth Bass in Missouri," was published in the *Journal of Fisheries Management* of the American Fisheries Society, Volume 27, Number 1, pages 326-341. One of the reviewers of the paper wrote, "It is a great example of applying multiple scale habitat analysis to aquatic systems using the latest statistical techniques. The authors did a great job with evaluation of model accuracy. I especially like the presentation of a conceptual model explaining the results and the recommendations for future work assessing land use effects on smallmouth bass distribution."

A total of 13 papers were submitted for consideration for this award, and 17 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.

Shannon Brewer received her B.S. degree in Biology at Missouri Western University in St. Joseph in 2001 and her M.S. degree in Fisheries and Wildlife Sciences at the University of Missouri-Columbia in 2004. She completed a Ph.D. in Fisheries and Wildlife Sciences at the University of Missouri in 2008. Her major professor was Dr. Charles F. Rabeni. In addition to the paper that won the award, Shannon has several papers related to smallmouth bass ecology in various stages of preparation. She has also authored several other papers published in quality journals, including *Ecology of Freshwater Fish*, *Hydrobiologia*, and *Transactions of the American Fisheries Society*. She currently works for the U.S. Fish and Wildlife Service as a fish biologist on the San Joaquin River Restoration Program, California. Her interests include fishing, hiking, and camping.

Prepared and submitted by William Bayliff

First Announcement: Alverson, NPAFC Outstanding Achievement Awardees, 2010

Dr. Dayton L. Alverson
Natural Resources Consultants, Inc.
4039 21st Ave West – Suite 404
Seattle WA 98199

Dear Lee,

All of us in American Institute of Fishery Research Biologists (AIFRB) are most pleased that you are receiving our Outstanding Individual Achievement Award for 2010. Your name and your contributions are so well known all over the world that you are a standard for measuring excellence in our profession. The criteria we use to select our recipient include significant publications, exceptional service to the profession, outstanding teaching and significant contributions to the advancement of fisheries science. I would add that I have always been impressed with your curiosity and passion for a wide range of issues in fisheries. I look forward to reading your new book which I am taking with me to the NPAFC meeting in Japan in a few weeks.

Congratulations,
Dick Beamish
President, AIFRB

Vladimir Federenko, Executive Director
North Pacific Anadromous Fish Commission
Suite 502 – 889 Pender Street
Vancouver BC V6C 3B2

Dear Valdimir,

It is my pleasure to inform you that the North Pacific Anadromous Fish Commission (NPAFC) has been unanimously selected to receive the American Institute of Fishery Research Biologists (AIFRB) Outstanding Group Achievement Award for 2010. A number of years ago we recognized the old INPFC organization, but the NPAFC is new and deserves to be recognized for its own achievements. NPAFC provides the focus for Pacific salmon research. Researchers now work as a team and are a model for international research. You and your staff are highly respected by all Pacific salmon producing countries.

Congratulations,
Dick Beamish
President, AIFRB

More on Alverson and NPAFC in a future issue. Ed



Ruby and Lee Alverson with plaque symbolizing outstanding Achievement Award for 2010.

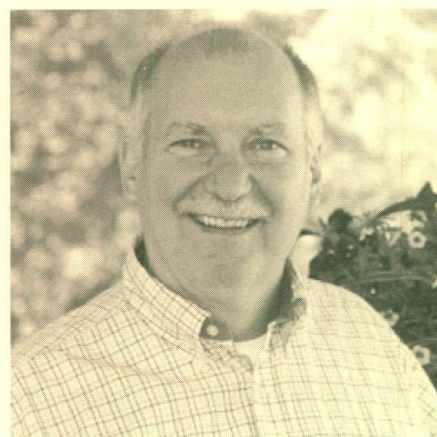
Fellow Megrey given AFS Award

Dr. Bernard Megrey of NOAA's Alaska Fishery Science Center's Recruitment Processes Program and his coauthors were recently recognized by the American Fisheries Society for the best paper published in 2008 by the Transactions of the American Fisheries Society:

Rose, K.A., Megrey, B.A., Hay, D., Werner, F., Ware, D.M. and Schweigert, J. (2008). Climate regime effects on Pacific herring growth using coupled nutrient-phytoplankton-zooplankton and bioenergetics models. Transactions of the American Fisheries Society 137:278-297.

The authors built upon an international cooperation established through PICES (North Pacific Marine Science Organization) to build and use coupled biophysical models to better understand and predict production variability in fisheries.

By Jeff Napp



Bern Megrey. Photo by Karna McKinney

Nominations Needed!

W.F. Thompson Award for Best Student Paper Published in 2008

Nominations are 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. The award will consist of a check for \$1000.00. 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 March 1, 2010. The nominations should be sent to the Chairman of the W.F. Thompson Award Committee, Dr. G. Morris Southward, 4155 Sotol Drive, Las Cruces, NM 88011-7642, (e-mail morlor31@comcast.net). Each nomination must be accompanied by a copy of the paper (unless it is easily available on the internet) and a résumé. The papers will be judged by knowledgeable reviewers selected by the Chairman and the members of the Committee on the basis of contribution to fisheries science, originality, and presentation.

Note: Mo Southward is new chairperson offering Bill Bayliff some well earned relief.

Strategic Planning Begun

President Beamish, to establish a five year plan for the Institute, has appointed a committee of himself, Tom Keegan, Ed Roseman, Doug Vaughan, Steve Cadrin, and Kathy Dickson. In consultation with members they are to plot the future of the organization.



*Board of Control at Nashville, August 2009
l-r: Morris Southward, Peter Haaken, Dick Beamish, Doug Vaughan, Tom Keegan, Kathy Dickson, Gary Sakagawa, Allen Shimada, Ed Roseman (ID's according to Dr. Vaughan. Ed)*

A Bargain! Your AIFRB Dues!!

American Institute of Fishery Research Biologists

2010 MEMBERSHIP YEAR DUES NOTICE
(SEPTEMBER 1, 2009 - AUGUST 31, 2010)

Dear Colleague:

Please return with annual dues as indicated:

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Student Associate \$20.
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I wish to make a tax-deductible donation:

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For credit card payment visit www.aifrb.org

Come on Folks: Forty Bucks, that's only a dozen DosEquis' at Arturo's, a local jalapeño and heartburn dispensary. Ed.

A LOSS

Dr. Robert Edwards, Falmouth, MA

Oct 28 (approx) 2009

Bob Edwards began working in Woods Hole in 1955. He was Herb Graham's assistant laboratory director and succeeded Graham as director when he retired in 1970 [Dr. Graham passed away in January of this year at the age of 102]. He was the first NEFSC (then called the NEFC) director serving in that post from 1976 until his retirement in 1981. His career spanned a period in which the U.S. became not only more interested in domestic ocean fisheries, but also an international player in fishery management and science. During this time, beginning in the late 1960s, he was among those who developed the idea of an ecosystems approach to fishery management and championed the concept of managing fisheries across jurisdictional lines (state, federal, and international), according to the distribution and abundance of the stocks. He contributed to the design and formation of the NEFSC trawl survey, the Polish Sorting Center, and two unique international fishery research programs—the 10-year fishery research program between the U.S. and U.S.S.R. on fishery stocks off the Northeast, and the Helgoland undersea habitat project (US, West Germany and Poland).

He was often described as quite brilliant, an original and rigorous thinker and a tough boss, but one who brought out your best work. He was an emeritus trustee of the Boston Ballet owing to his contributions to its founding.

My remembrances of Bob include the facts that (1) when the eastern bloc countries began operating in the fisheries of the Northwest Atlantic in the late 1950's, he quickly learned to speak Russian and became one of the principal spokesmen during U.S.-Soviet negotiations over fisheries; (2) that he was a knowledgeable collector of American Indian pottery, a pursuit in which I gave him small help in North Carolina many decades ago. Ed.

Fellow Dauble Retires

Dennis Dauble: after 35+ years with Pacific Northwest National Laboratory. Home address 3029 Sonoran Drive, Richland, WA 99354

Members Author Two Books

Fishes of the Columbia Basin

Dennis Dauble reports: I had a guidebook, *Fishes of the Columbia Basin*, published by Keokee, Inc. in July 2009 (can be viewed at KeokeeBooks.com) Intended audience is lower division fisheries students or the fisher/naturalist.

Anyone willing to review the work? Ed.

Follow the Coastline (Paperback)

By James E. Sykes (Author) Past President AIFRB

Paperback: 132 pages

Publisher: Xlibris Corporation (February 12, 2008)

Language: English

ISBN-10: 1425793789

ISBN-13: 978-1425793784

Most Helpful Customer Reviews

4.0 out of 5 stars Enjoyed it and learned something at the same time... May 18, 2008

By C. Swallows "Chase Reader" (Gainesville, FL United States)

This book is a collection of stories about the author's experiences being a marine biologist and administrator with the US Fish and Wildlife Service (Subsequently NOAA, NMFS) up and down the east coast and the Gulf of Mexico, including a stint with the North Carolina Coastal Resources Commission.

The stories are interesting, non-scientific accounts of Mr. Sykes' experiences that range from his youth, interaction with an Indian tribe, dealing with recalcitrant personnel, relationship with state staff, to problems with dealing with Washington, D.C. I particularly enjoyed his stories about his unexpectant hilarious encounter with his aunts and case of the big, ugly book. I was ROTFLMAO. (*Ed: Huh?*) Other stories I enjoyed include the incident of the ball point pen and the charm school.

I even learned some things about sexing striped bass that I never knew before reading this book. And now I know what the word "anadromous" means. More importantly, I now have a greater appreciation of the role of marine research efforts and state coastal commissions to us common citizens.

A good, quick read. I enjoyed it.

From Amazon.com

Review

EARLY LIFE HISTORY OF MARINE FISHES. B. S. Miller and A.W. Kendall, Jr. 2009.

University of California Press, Berkeley, California. 364. pp.

By John J. Govoni

This book is the latest in a series of recently published books on varied aspects of the early life of fishes; yet it is a most important one. The past 100 years have seen the increasingly frequent publication of symposia and proceedings, in journal or symposium format, that deal with problems associated with the population bottleneck known as recruitment. The past twenty years have seen the publication of four books published by international publishing houses that cover exclusively topics of the early life histories of both freshwater and marine fishes. These books are edited volumes that present papers or chapters by single, or multiple authors, on specific topics. Consequently the papers or chapters comprise the parochial interests and biases of one author, or a few coauthors. Bruce Miller and Art Kendall, both AIFRB fellows, teamed to produce the first book on the early life history of fishes, written by two authors with expertise spanning a broad spectrum of early life history studies accumulated over careers of accomplishment.

The book was a long time in the making. The authors met as graduate students at the University of Washington, College of Fisheries and the Department of Oceanography, maintained close communication, and lectured together in courses in fisheries science. This relationship has resulted in a coherent, well organized, and well coordinated book, written with the congealed perspective of two authors – their personal biases notwithstanding. The strength of the book is just that, the long experience in teaching and research on a broad range of early life history topics (Miller) and the long experience of applied research on larval fish taxonomy, ontogeny and systematics, and fisheries oceanography (Kendall).

The title belies the content, a bit. Many books deal with marine fishes, largely because the recruitment problem has registered in the population dynamics of fishes of commercial fishery importance. Miller and Kendall is so entitled, yet while the book focuses upon marine fishes, and principally those with free floating eggs and larvae of pelagic habitats, many chapters are written about generic topics in fish biology and with fishes that live in both marine and fresh- waters, as well as diadromous and catadromous species that live in both habitats.

Miller and Kendall is well organized into a logically coherent progression of chapters: Fish reproduction; Development of eggs and larvae; Ecology of fish eggs and larvae; Population dynamics and recruitment; Habitat, water quality, and conservation biology; and Rearing and culture of marine fishes. Chapters engage one or several of the principal strategies of critical thinking and writing: definition, classification, summarization, comparison, and analysis. The first chapter commendably begins with the alpha of the alpha and omega of early life history study – oogenesis and spawn formation. Chapter IV, ecology of fish eggs and larvae begins with definitions of ecology and ecosystems then moves to the role of the early life history of fishes in the ecosystem, a currently appropriate entry given the present emphasis on ecosystem management as opposed to single species fisheries management. The last chapter, is logically placed, but mis-entitled, as it deals with applications of rearing and culture, and not methods. The contents of the book conclude with laboratory exercises, which lends the entire book to application in teaching. The tables are well organized, inclusive, and simple; the boxes are longer and more complex, but comprehensive. Most of the figures are reprinted from the literature without modification; original figures or those pulled from the literature of the authors, are truly illustrative. The references are up-to-date, with 2009 citations.

There are few omissions or factual errors and those that seem apparent owe to the intent of the authors to reach overarching generalities. For example, the discussion of buoyancy is cursory and the coupling of the onset and development of visceral organ systems to developmental sub-stages predicated on notochord flexion seems haphazard. Chapter V, Sampling fish eggs and larvae, omits discussion of electrically hard-wired, multiple net and environmental sensing devices (the MOCNESS and BIONESS), which brought the simultaneous collection of fish eggs and larvae and environmental variables into complete, computerized automation.

Most recent books on the early life history tout relevance and application as undergraduate and graduated level texts. Miller and Kendall is well suited to either application, but given its content and presentation, it will be the most useful as text. It will serve well as a reference for researchers.

Many thanks to Jeff for this quick and thoughtful effort. Ed

Facing the facts on the future of Northwest salmon

By Robert Lackey

Over the past 135 years there have been many salmon recovery plans. During the past two decades their frequency has increased. The Clinton administration offered several detailed plans. The Bush administration tweaked the Clinton plans and offered several even more detailed ones. Now the Obama administration has tweaked the final Bush plan and offered its own with a few new wrinkles. Good luck.

Not one of these plans has much of a chance of achieving its publicly stated goal. Why is it that experts, behind closed doors and off the record, pretty much agree that they will not be successful? To find out why, we need to consider what we learned from Joe Friday.

Radio, television and movie detective extraordinaire Joe Friday demanded and provided “just the facts” as he sleuthed out truth amid the gossip and hearsay of criminal investigations. Scientists (the experts) who are tasked with informing the public and policy-makers about natural policy issues should attempt to do the same — just the facts — the straightforward, inflexible, sometimes unpleasant realities. Lets use a Joe Friday approach to the salmon crisis.

Fact 1: Wild salmon in California, Oregon, Washington, Idaho and southern British Columbia are in serious trouble. South of the Canadian border, most runs are less than 10 percent of their pre-1850 levels and more than two dozen are listed as threatened or endangered under the U.S. Endangered Species Act. Similarly, several runs in British Columbia are candidates for listing under the Canadian Species at Risk Act. Worse, from California to British Columbia, many runs have disappeared, and more will follow unless there is a reversal of the long-term downward trajectory.

Fact 2: The meager state of salmon runs along the West Coast is not a new situation. The decline in wild salmon numbers started with the California gold rush in 1848; the causes included water pollution, habitat loss, over-fishing, dams, irrigation projects, predation on salmon by many species, competition with hatchery-produced salmon and non-native fish species, and many others.

Fact 3: If society wishes to do anything meaningful about moving wild salmon off their current long-term downward trend, then something must be done about the unrelenting growth in the human population level along the West Coast. Currently, Oregon, Washington, Idaho and British Columbia are home to 15 million humans. Assuming likely reproductive rates and continuing immigration to the Pacific Northwest, in 2100 this region’s human population will be somewhere between 50 million and 100 million: a quadrupling by the end of this century, barely 90 years from now. Similarly, extrapolating population growth rates for California, by 2100 that state alone will be home to over 160 million people.

Fact 4: If the population levels in California, Oregon, Washington, Idaho and British Columbia increase as expected, the options for restoring salmon runs to significant, sustainable levels are greatly constrained. By 2100, from California to British Columbia, there could easily be 200 million to 250 million people. With so many more people inhabiting the West Coast, consider the demand for houses, schools, stadiums, expressways, planes, trains, automobiles, coffee shops, fast-food restaurants, malls, air conditioning, drinking water, pipelines, computer chips, home entertainment systems, ski resorts, golf courses, sewer treatment plants and office buildings for government employees.

Society’s options for sustaining wild salmon in significant numbers would be just about nonexistent. Good water quality would be achievable, as would maintaining prosperous populations of many non-native fish species (walleye, smallmouth bass and American shad) better adapted to altered aquatic environments, but the possibilities for abundant wild salmon would be severely constrained.

Whatever policy-makers propose to do about the 2009 collapse of West Coast salmon runs, these four facts cannot be ignored. Policy-makers should demand from scientists realistic and honest assessments of the current and future conditions for salmon.

Joe Friday was a tough, no-nonsense professional. Those of us who provide the public and policy-makers with the best available information about salmon ought to follow his lead: “just the facts.”

*Submitted by: Robert Lackey
From The Oregonian, September 28, 2009*

5th World Fisheries Congress A Success

(Report from Past President Gary Sakagawa)

The port city of Yokohama, Japan was the venue for the 5th World Fisheries Congress, October 20-24, 2008. More than 1,600 participants from around the world descended on Yokohama for the 5-day event, which included an opening ceremony presided over by the Emperor and Empress of Japan. Hosting the 5th Congress was the Japanese Society of Fisheries Science (Dr. Katsumi Aida, President) and its organizing committee chaired by Professor Shugo Watabe. The American Institute of Fishery Research Biologists had several members participating in this event and was also recognized as a financial contributor by the host.

Each day of the Congress began with two keynote speakers in the morning followed by 11 concurrent sessions for contributed papers. Approximately 700 papers were presented in nine topical sessions: Fisheries and Fish Biology, Aquaculture, Biotechnology, Post Harvest Science and Technology, Material Cycling in Aquatic Ecosystems, Freshwater, Coast and Marine Environment, Biodiversity and Management, Fisheries Economics and Social Science, and Education and International Cooperation. For diversion, participants could select from visiting a trade show with 34 vendors, viewing poster papers and speaking to authors in a large hall, enrolling in a Japanese cultural class (flower arrangements, “Ikebana;” paper craft, “origami;” etc.), taking part in tours (Kamakura, Tokyo wholesale fish market, “Tsukiji,” etc.) or getting lost in the historical wards and vast shopping arcades of Yokohama.

This 5th Congress was a media event in Japan where fish and fisheries news are followed closely by the public. The organizing committee anticipated this interest and prepared a unique way to connect the Congress with the Japanese public. It scheduled a public forum (in Japanese) to discuss Congress activities and results with the public and press for the day after the Congress. It also anticipated that the keynote addresses would be of special interest. One in particular by Professor Michael A. Crawford, London Metropolitan University UK, caught the attention of the press. Professor Crawford spoke about his research on the role of fatty acids in human nutrition, brain development, evolution and health. His research has shown that fish is the best source for essential fats, particularly the Omega 3 fatty acids, required for development and maintenance of a healthy human brain. Cereals and wheat sources (Omega 6 rich) for fatty acids are poor substitutes. His message that a diet rich in fish and fish products is good for maintaining a healthy brain resonated well with the interest of the aging and increasingly health-conscious Japanese population.

The next World Fisheries Congress is scheduled to be held in May 2012 in Edinburgh, Scotland, UK.

And if you don't know Gary...

Alumnus Feature, University of Washington

Gary T. Sakagawa, PhD, 1972

The dynamics of juvenile salmon, with particular emphasis on pink salmon (*Oncorhynchus gorbuscha*), during their early marine life

Gary Sakagawa is the Assistant Center Director for Fishery Management Programs at the NOAA Fisheries Southwest Fisheries Science Center, in La Jolla, California. He has been working with NOAA Fisheries since 1971. His research is focused on population biology and stock assessment of highly migratory species, including several species of tuna.

A longstanding supporter of our program, Gary reflected on the value of the educational and research experience based on his time at the University of Washington (UW): "I learned to formulate the right questions, take a systems point of view, and especially interact with students of diverse backgrounds and experiences. This helped shape my view that fisheries issues need to be addressed in a broad context of biology, economics, politics, and social forces."

To address such issues, Gary urges students to get a wellrounded education, in part because the specialties they study in college often do not persist throughout their careers. "One constant, however," he added, "is that fisheries work requires interaction with people, so training in interpersonal skills will always be useful."

Gary observed that a major strength at School of Aquatic and Fishery Sciences (SAFS) is the many opportunities students have to gain field experience. He also emphasized the importance of training in stock assessment techniques: "Few universities have significant programs in this discipline, and UW is one. The job market for graduates trained in stock assessment is 'hot'. I'm amazed that more universities have not picked up on this."

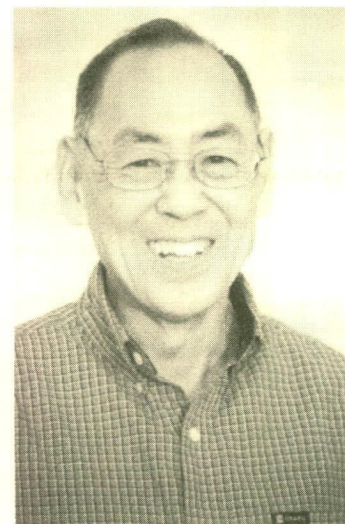
In considering the role of higher education in research and policy, Gary cited three basic, interconnected areas: "Foremost is training students to be marketable for good jobs and make significant contributions to society and the world. Second is advancing fishery science that leads to medium- to long-term payoffs to society. Third is partnering with the private and government sectors to implement research findings." By addressing these three areas, Gary believes an institution like SAFS can serve as a catalyst for conducting research and implementing research findings for the benefit of the greater community.

Gary allowed that this is no easy task, given the challenges we face: "We must balance the demands of the growing human population with the biological limits of fisheries resources in a changing environment." He observed that many people rely on fish products for a good part of their diet, especially in developing nations, and that people are becoming increasingly aware of seafood's health benefits: "In short, demand will remain high and grow." Further, while he noted that aquaculture could help us recover wild stocks and partially satisfy growing demands, he cautioned that "it too is facing enormous challenges."

Gary has been contributing to the SAFS program for many years: "At an early age, my parents taught me the importance of giving back to the community that played a part in my success. It's a family tradition to support the community that I reside in as well as those communities that contributed to my fisheries training and that will continue to train diverse students in the future." We are grateful that the SAFS community remains high on Gary's support list.

Make a gift: <http://fish.washington.edu/fund>

From Aquatic & Fishery Sciences Newsletter of the School for Aquatic and Fishery Sciences, University of Washington



Gary T. Sakawaga

Plenty more tuna in the sea?

Fellow Joseph douses emotional fire with deluge of facts.

Tuna are the latest fish to come with a health warning about exploitation and collapsing stocks. The truth is rather different, says James Joseph.

IS IT OK to eat tuna without feeling guilty? The media is full of reports claiming the demise of tuna stocks. Monaco, France and UK are calling for the trade in bluefin tuna to be banned. There is no doubt that some tuna stocks are heavily overfished, but they are not the source of the fish you eat in a tuna sandwich or salad. In fact, it's OK to continue eating tuna—at least for now.

Tuna are widely but sparsely distributed throughout the world's oceans. They grow rapidly to very large size and can support major fisheries. They also migrate long distances, and their travels carry them through the fishing zones of many nations and also international waters.

This wanderlust makes tuna more complicated to manage than less nomadic fish. Because the level of fishing in one area can affect their abundance in others, cooperation among the nations through whose waters tuna migrate and those whose fleets catch them is essential. Accordingly, tuna stocks are managed by five regional fisheries management organization, whose duties are to conduct scientific studies and implement conservation measures to ensure the tuna harvest is sustainable.

Taken together, tuna account for about 5 per cent, or 4.2 million tonnes, of the world's annual harvest of marine fish. The catch is made up of seven principal species. Skipjack, used mostly for canning, accounts for 59.1 per cent. Yellowfin is next with 24.0 per cent, bigeye 10.0 per cent, albacore 5.4 per cent, and the three species of bluefin (southern, northern [Atlantic] and Pacific) make up the remaining 1.5 per cent. Bluefin are the giants of the tuna family and the most highly prized.

These seven species are divided into 23 stocks. Scientific studies have shown that, of these, six are overfished, six are fully utilized (which means they can't sustain any increase in the catch), and nine are not yet fully utilized. Two have not been adequately assessed.

The three most seriously overfished stocks are eastern Atlantic and Mediterranean bluefin, western Atlantic bluefin, and southern bluefin. Unless measures are implemented to reduce catches they might not recover. For the fourth bluefin stock, in the Pacific, a full assessment is currently underway.

Of the remaining three overfished stocks, North Atlantic albacore is recovering and is nearly back to its optimum level; the eastern Pacific bigeye stock is slightly overfished, but management measures due to be implemented this year may allow it to rebuild; and yellowfin in the Indian Ocean may recover thanks to recent pirate activity, which has led many vessels to leave the area.

The other tuna stocks are reasonably healthy. Three of the six fully utilized stocks are at risk of becoming overfished, but conservation measures are being put in place. Overall, about 90 per cent of tuna catches come from stocks that are not overfished.

So contrary to what you might have been led to believe, tuna stocks are largely in good shape. The challenge is to ensure that the healthy stocks stay healthy and the overfished stocks recover.

There are many obstacles to overcome. Each of the management organizations comprises between 6 and 48 member states; most of them require consensus of all the members in order to enact conservation measures, and this is difficult to achieve.

One of the main problems is that there are too many tuna boats—capacity is 10 to 40 per cent more than is needed to harvest the stocks at sustainable levels. There are no strict controls to stop new vessels entering most tuna fisheries, so they continue to be built. This overcapacity results in excessive competition for limited supplies and diminishing economic returns, and makes it difficult for nations to agree on conservation measures.

This sort of shortsighted race to exploit a resource without regard for the long-term consequences is what has led to overfishing in many of the world's fisheries. It stems from the tradition of open access to highseas fisheries, a concept enshrined in the United Nations Convention on the Law of the Sea.

It is time to change the convention and introduce new management systems. The first step would be to limit entry into the fishery. Next, assigning fishing quotas to individual boats, rather than allowing them to compete for as large a share of an overall quota as possible, would motivate fisheries themselves to support conservation measures in order to protect their share.

However, achieving consensus for such systems will be difficult because of tension between the haves and have-nots. Most of the have-nots are developing states that aspire to establish tuna-fishing fleets. Tuna pass through waters under their control and many are members of regional management organizations, but in many cases they lack the capital and infrastructure to run fleets. Because they want a piece of the action, they are unlikely to agree to limits on new vessels unless they are guaranteed a right to acquire vessels.

Excluding bluefin, tuna fisheries are close to peak productivity. Unless effective conservation measures are implemented, they will slide down the slippery slope of overfishing. The situation is serious enough that scientists and environmental organizations have joined together with the major canned tuna processors to form the International Seafood Sustainability Foundation. Its purpose is to support the five fisheries management organizations in their duties to implement science-based conservation.

The time for states to negotiate meaningful conservation measures is now, before the healthy stocks become overfished and the overfished stocks are further depleted.

James Joseph serves on the International Seafood Sustainability Foundation's board of directors and is chair of its science advisory committee.

*From New Science
Submitted by Bill Bayliff*

A Valuable Newsletter

I call your attention to a newsletter, River Crossing, issued by the Mississippi Interstate Cooperative Resource Association (MICRA).

I find it a very informative publication — the recent issue includes current information about Asian Carp and the Great Lakes, eradication of the Snakehead in Arkansas, Tilapia problems in Louisiana, spawning of hatchery propagated sturgeon, Yellowstone Cutthroat trout, etc. etc.

It is free — online or hardcopy by emailing: MICRA@fws.gov and requesting a subscription. If interested ask for a current issue.

Submitted by Bernie Skud

Member June leads conservation effort!

Stimulus money pays fishermen to snare lost nets

By Patrick Oppmann CNN

Until recently Kenny Woodside and about 100 other divers searched Puget Sound for sea cucumbers and urchins to sell to buyers in Asia, where the items are considered delicacies. But demand for the fishermen's catch dried up with the worldwide economic crisis and left many of the divers without a reason to go out on the water.

"The fishing industry has slowed from a full-time job to just a couple months a year," said Doug Monk, the captain of the boat from which Woodside dives. "The red sea urchin market is almost nonexistent. But thanks to a small piece of the federal stimulus recovery plan, Monk, Woodside and about 40 other fishermen will go back to work hauling in a very different catch: lost fishing nets.

While many stimulus projects have come under fire as pork barrel spending, backers of the nets program say it is a model for helping those battered by the economic downturn while completing needed public works.

Thousands of the large nets stretch across the floor of Puget Sound, where they create an environmental hazard. Some of the nets were lost by fishermen to the rocky coastline decades ago but continue to catch and kill.

According to the Northwest Marine Conservation Initiative, the nets are responsible for killing tens of thousands of marine life, mammals and birds every year. The nets, some of which extend larger than a football field, can also tangle the propellers of boats and pose a danger to scuba divers.

After struggling to find funding, the group received \$4.6 million in stimulus funds to recover most of the nets that litter the unique Puget Sound ecosystem. The only reason the nets have remained underwater for so long, said Ginny Broadhurst, director of the Northwest Marine Conservation Initiative, is because the damage they are doing to the environment is invisible from the surface.

"If you had nets strung along the streets that are catching bunny rabbits and squirrels, we wouldn't be discussing whether we should be removing them. We would be pulling them. It would be immediate," said Broadhurst. "When those threats are underwater it's so much harder to know what impacts they are having."

But pulling those nets is no easy task. Divers swim close to 100 feet down to an environment that is anything but friendly. Instead of using scuba equipment, they breath through air hoses running from the boat above. When the divers find the fields of nets, they begin the labor of cutting them free piece by piece and all by hand. Removing one net can take days. The nets are then pulled to the boat waiting on the surface. In just a few hours on the water, the divers can pull free about 1,000 pounds of nets. Inside are the bones of countless fish and birds, along with several species of protected sharks and crabs. Anything still alive is cut free and thrown back in the water. Then, biologist Jeff June notes what they have brought up. So far, he says, the group had identified 112 distinct species trapped in the nets.

The fishing nets themselves are considered toxic after the years of catching so much sea life. The divers seal them in heavy duty plastic bags and, once on shore, take the nets to a landfill. But biologist June said the group is working on a plan that would have the nets burned, creating energy from lost fishing nets. Over the next 18 months the group expects to pull some 3,000 nets from Puget Sound. And in that time the fishing industry could bounce back from its slump, allowing Doug Monk and his crew to return to catching urchins and sea cucumbers.

But, the boat captain said, recovering the fishing nets has greater meaning than just riding out a rough economy. "We feel we are doing a good thing," he said. "[With] harvest diving we are taking from the resources; here we are giving them back."

Submitted by Allen Shimada

Saving Atlantic Salmon, Historical record clears

Atlantic salmon, archaeology and climate change in New England

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ABSTRACT

A paucity of archaeological remains of Atlantic salmon in Northeast North America has been cited as evidence that the species may have been present in the region only during and after the Little Ice Age (ca. 1450-1850 AD), one of coldest periods of the Holocene. However, significant problems of preservation, recovery and identification remain. Here, improved methods of identification use vertebra structure to distinguish salmon from trout, and strontium/calcium ratios to differentiate sea-rum from landlocked salmon. In addition to the Little Ice Age, Atlantic salmon is identified in tightly dated contexts at 7000-6500 and 3500-3000 calendar years BP, during climate periods that were comparatively warm and wet.

From Journal of Archaeological Science xxx (2009) 1-8

Submitted by Joan Trial

Use of nonnative oyster officially ruled out

The idea of introducing a nonnative oyster into the Chesapeake Bay to revive wild oyster populations or to provide a boost to private aquaculture officially came to an end in August.

Col. Andrew Backus, commander of the Norfolk District, U.S. Army Corps of Engineers, signed the “record of decision” which brings to a close a five-year study of oyster management options in the Bay.

The study, known as a Programmatic Environmental Impact Statement, began when state officials-facing a native oyster population ravaged by disease, overharvesting and destruction of habitat proposed the introduction of *Crassostrea ariakensis*, a native of China, which in tests appeared resistant to diseases that afflicted the native species.

The Corps and the states of Maryland and Virginia were lead agencies for the study, which was expanded to consider a series of oyster management alternatives. State and federal officials announced earlier this year that they would rule out the use of nonnative oysters. The record of decision cited “ecological uncertainties” about introducing a nonnative species, and “strong opposition of most stakeholders” to the use of a nonnative species.

The preferred alternative, outlined in the record of decision, incorporates three of the options that were studied:

- Expand, improve and accelerate native oyster restoration programs.
- Implement a temporary harvest moratorium on native oysters and develop a buy-out program to compensate displaced watermen, which could include work in restoration efforts.
- Expand native oyster aquaculture to support the commercial production of oysters.

While the record of decision establishes a “preferred alternative” from the study, it is not necessarily binding on the states. For instance, it does not have the authority to force states to implement a harvest moratorium and dramatically accelerate restoration efforts, which would come with a huge price tag.

But it does set a consensus direction. In August, A.C. Carpenter, executive secretary of the Potomac River Fisheries Commission, said he would recommend to the Commission in September a moratorium on oyster harvests in the river, citing continued poor harvests and the recommendations from the EIS.

The final Environmental Impact Statement and Record of Decision can be found at www.nao.usace.army.mil/OysterEIS/.

From Bay Journal 19(6) September 2009

EU officials warn cod is closer to disappearing

Brussels — Cod is slipping closer to disappearing from key European fishing grounds, officials warned Friday, saying that only steep catch cuts will prevent the disappearance of a species prized for centuries for its flaky white flesh.

The European Union’s executive body called for sharp cuts in the amount of cod fisherman can catch next year — up to 25 percent in some areas. The European Commission said recent studies showed cod catches in some areas are far outstripping the rate of reproduction.

Scientists estimated that in the 1970s there were more than 250,000 tons of cod in fishing grounds in the North Sea, eastern English Channel and Scandinavia’s Skagerrak strait. In recent years, however, stocks have dropped to 50,000 tons.

From Sun Journal New Bern, NC Oct. 17, 2009

Federal Fisheries Management Council Approves Measures to Protect Largest Deepwater Coral Reef in the U.S. South Atlantic

Historic measures aim to protect over 23,000 square miles of coral habitats

Members of the South Atlantic Fishery Management Council voted unanimously to approve the Comprehensive Ecosystem-Based Amendment 1, a move that will bolster the layer of protection for over 23,000 square miles of complex deepwater corals located off the coasts of the Carolinas, Georgia, and eastern Florida. The amendment, upon implementation by the Secretary of Commerce, will protect specific areas of sensitive habitat, deemed Coral Habitat Areas of Particular Concern (HAPCs) that house an invaluable array of deepwater coral species living in waters ranging from 400 meters (1200 ft.) to 700 meters (2300 ft.) deep.

The South Atlantic region is home to what may be the largest contiguous distribution of deepwater corals in the world, including the common *Lophelia* coral, largely responsible for reef mound construction in these cold water areas. The parameters defined within the amendment aim to shield these areas from impacts associated with bottom-tending fishing practices. "I am delighted, after five years of effort, that the South Atlantic Fishery Management Council has taken this historic step in the protection of deep sea coral habitat," said Council Chairman Duane Harris. "This effort involved working closely with golden crab and royal red shrimp fishermen and coral reef experts to craft measures that allow continued fishing while ensuring these coral areas, some of which are thousands of years old, are protected. The measures will also protect against any possible future shifts of fishing efforts to these coral areas."

At the beginning of the decade few people knew of the existence of vast areas carpeted with corals in deep waters off the South Atlantic coast of the U.S. Scientists at that time were beginning to realize the extent and importance of these "hidden" ecosystems. In 2003, the Council tasked two of those scientists, Dr. Steve Ross, with the University of North Carolina at Wilmington, and John Reed, of the Harbor Branch Oceanographic Institution, to compile two reports on what was known to date about the deepwater coral ecosystems in the region.

Based on these two reports and following the recommendation of its Habitat and Coral Advisory Panels, the Council quickly chose to move forward to protect the area from fishing impacts. A collaborative process involving conservationists, scientists, managers, and fishermen ensued and, over the following 5 years, culminated with the development of the Comprehensive Ecosystem-Based Amendment 1. If approved for implementation by the Secretary of Commerce, regulations to establish the Coral Habitat Areas of Particular Concern would likely become effective in early 2010.

"In both the process involved and the results achieved, the South Atlantic Fishery Management Council has set a new standard for management of valuable ecosystems," stated Dr. Doug Rader, chairman of the Council's Habitat and Environmental Protection Advisory Panel. "I know of no other example where the finest science available was translated through interactive work with managers and fishermen into world-class protection." This impressive 'win-win' should be celebrated by all those who love the sea, and who appreciate eating sea food they know is harvested in ways that protect its bounty."

For many years fishermen targeting golden crab and royal red shrimp have set their traps and hauled their nets in areas now known to provide suitable habitat for deepwater corals. These small traditional fisheries, however, operate in distinct areas where fishermen can be sure their gear will not become tangled and possibly damaged. Therefore, "Allowable Golden Crab Fishing Areas" and "Shrimp Fishery Access Areas" within two of the proposed Coral HAPCs are included in the proposal to ensure the continued existence of these fisheries and the communities they support. "The Council itself initiated efforts to alert us of all the ramifications of the developing process and to minimize the impact on the golden crab fishery," said Bill Whipple, chairman of the Golden Crab Advisory Panel. "After dozens of meetings and hundreds of hours with numerous affiliates of the SAFMC, the outcome includes invaluable learning for all involved, deep-rooted respect, and a resolution of the problem which, given the limitations and complexities involved, preserves and maximizes the interests of everyone."

An international team of deepwater coral researchers, led by Dr. Ross, is currently conducting a series of research cruises that include exploration of the proposed deepwater coral protected areas off the South Atlantic coast. Using Harbor Branch Oceanographic Institution's manned submersible, the Johnson Sea-Link, scientists were able to collect coral samples at depths over 1,000 feet and record never before seen portions of the expansive reefs during the first cruise in August 2009 off of Cape Canaveral, Florida. Coral samples allow scientists to chemically measure environmental changes such as ocean temperatures and productivity, often over thousands of years. The reefs may act as barometers for impacts associated with ocean acidification and climate changes. Scientists are also studying habitat distribution and the composition of deepwater communities. Certain species associated with the corals, such as sponges, may have biomedical applications in the treatment of cancer. "The Council is spearheading efforts to define the boundaries and protect these areas," said Dr. Ross, noting that fishing practices have damaged some deepwater coral areas in other parts of the world. "We're ahead of the game. These deepwater reefs are irreplaceable."

Additional resources:

High resolution images and video clips are available from the Habitat and Ecosystem Section of the Council's Web site at: www.safmc.net. Daily cruise logs are posted at: U.S. Geological Survey http://fl.biology.usgs.gov/DISCOVER/cruise_plan_2009.html and the N.C. Museum of Natural Sciences at: <http://naturalsciences.org/microsites/education/deepsea/index.html>

Note: Copies of the award-winning film "*Revealing the Deep*" about deepwater coral exploration and a separate CD with high resolution images and video clips from recent cruises are available by contacting the Council office.

Press Release: South Atlantic Fishery Management Council

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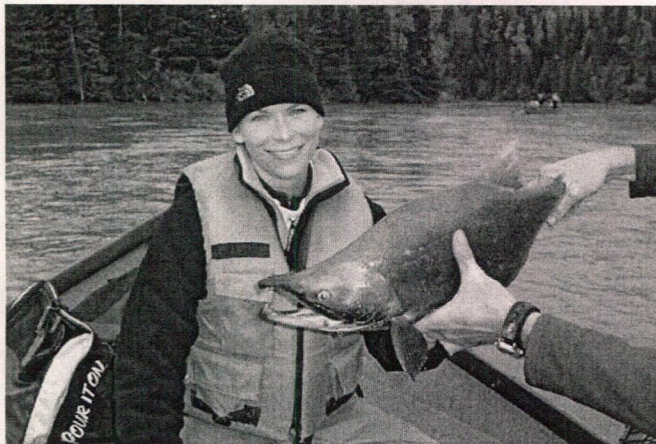
It's Time!

Gene Huntsman is retiring as the Editor of BRIEFS after 85 issues. BRIEFS keeps AIFRB together and Gene has consistently produced issues that are read, discussed and passed on to others. Gene told me he would retire as Editor when I became President, so this is expected. The Board is trying to find a new Editor and we are talking to a few people. If there are members that would like to help, please email me at Richard.Beamish@dfo-mpo.gc.ca. We are also thinking of some different approaches such as having each District take over producing BRIEFS for one year. This could highlight the fisheries research issues that are currently a priority in a particular District.

I would like to continue commenting on the theme of getting our message out. This time, I want to report on the health of Pacific salmon because most reports in the popular media suggest that Pacific salmon are in a state similar to Atlantic cod. Pacific salmon catches are at historic high levels and a new historic high occurred in 2009. Recent historic highs were set in 1995 and then in 2007 and now in 2009. The catch records are not finalized for 2009, but the catch will exceed 1,100,000 tonnes. It is true that catches are very low in British Columbia, Washington, Oregon and California, but these catches represent about 2% of the total catch. The message is that Pacific salmon production is declining at the southern limit of their distribution, but increasing elsewhere. Pacific salmon are the dominant group of fishes in the surface waters of the sub arctic Pacific, indicating that their prey is abundant over a vast area. Catches in Russia have been remarkable. They set a record of 340,000 tonnes in 2007. In 2009, the catch will be between 500,000 and 550,000 tonnes. The catch in 2009 was forecasted in 2008 using high seas surveys. The forecast was so large in 2008 that a special survey was carried out in May and June 2009 which actually increased the forecast to 550,000 tonnes. As a consequence of some very good science and science management, Russia carried out a very successful salmon fishery in 2009. BRIEFS is one way that AIFRB can get reliable information such as Pacific salmon production to members and others so that people are informed and the best management decisions can be made.

Happy new decade
Dick Beamish

Thompson Award Winner



Shannon K. Brewer recipient of the W.F. Thompson Award for papers published in 2007 was honored for her work "Natural Landscape and Stream Segment attributes influencing the distribution and abundance of riverine smallmouth bass in Missouri" coauthored with Charles F. Rabeni, Scott P. Sowa, and Gust Annis and published in the *Journal of Fisheries Management* 27(1):326-341. Ms. Brewer received not only a certificate of achievement but also \$1000 and a year's membership in AIFRB.

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

THE W.F. THOMPSON AWARD - A history

By William Bayliff

The AIFRB's W.F. Thompson Award for the best student paper in fisheries was established during the early 1960s, and first awarded to the author of a paper published in 1963. It has been awarded in most years since then. The longest hiatus was the period of 1972-1978.

There is not much information on how the selections were made during the earlier years. Most recently, when I was Chairman of the committee for the Award, there were four other committee members, all AIFRB members or fellows. The papers are submitted for consideration by mentors or colleagues of the students, or by the students themselves. Some of the papers are reviewed by committee members, but most of them are reviewed by other scientists, not necessarily members of the AIFRB. Most of the papers are reviewed by two to five reviewers, who

assign scores to them. Some of the reviewers review more than one paper published in the same year.

The Award has been given 31 times to 32 people. The Award for 1986 was shared by Robert Olson and Christofer Boggs, whose joint paper was based on Bob Olson's M.S. thesis at San Diego State University and Chris Boggs' Ph.D. dissertation at the University of Wisconsin. Six of the winners are women. Each winner has received a cash award (ranging from \$250, or maybe even less, during the early years to \$1000 during the most recent years). In some years the winner and/or his or her mentor has received a certificate.

The institutions at which the students did their research include the University of Washington (six students), Oregon State University (three students), University of Maryland, University of Missouri, and State University of New York (two students each), and many others (one student each). The journals in which their results were published include Transactions of the American Fisheries Society (eight papers), Canadian Journal of Fisheries and Aquatic Sciences (six papers), Bulletin of the U.S. National Marine Fisheries Service (five papers), Bulletin of the Inter-American Tropical Tuna Commission (two papers), and many others (one paper each). One M.S. thesis was published as a chapter in a book, rather than in a journal.

The Chairpersons of the committee have been John Pearce (11 Awards), William Bayliff (9 Awards), Ernest Salo (3 Awards), Wen-hwa Kwain (2 Awards), William Richards, Norman Benson, Elizabeth Edwards, and David Farris (1 Award each). The new Chairman, who will take charge of the Award for 2008 and subsequent years, is Morris Southward.

Chairmanship of this committee is time-consuming, and occasionally aggravating. On the whole, however, for me at least, it has been rewarding. I consider the W.F. Thompson Award to be a worthwhile project, and many others have said the same thing. I have corresponded with scores of reviewers, most of whom had never heard of me and many of whom had never heard of the AIFRB, and yet they gave generously of their time and wrote some very insightful reviews. Also, many of the recipients of the Award and their mentors have thanked me for my part in this endeavor.



President Dick Beamish enrolls American Fisheries Society (AFS) Past President Christine Moffitt (Idaho) in the AIFRB as Theresa Bert, looks on during AFS meeting, Nashville, TN August 2009.

*Looks like Ogden Nash was correct:
"Candy is dandy, but liquor is quicker". Ed.*

AD MODEL BUILDER

AD Model Builder (Automatic Differentiation Model Builder) is an open-source software package originally created for fisheries stock assessments by Dr. David Fournier of Otter Research Ltd., Sydney, B.C., Canada. In 2007, the ADMD Foundation was created with a startup grant from the Inter-American Tropical Tuna Commission. Its officers are: Dr. John R. Sibert, formerly of the University of Hawaii, President; Dr. Mark N. Maunder, Inter-American Tropical Tuna Commission, Treasurer; and Dr. Anders Nielsen, DTU-Aqua, Denmark, Secretary. In 2008 it received a grant of \$986,664 from the Gordon and Betty Moore Foundation. The funding is being used for the purchase, development, and promotion of AD Model Builder software.

AD Model Builder has been used to construct stock assessment programs such as Coleraine, A-Scala, and Stock Synthesis, which are used in many parts of the world. Not surprisingly, AD Model Builder has quickly received wide acceptance in fisheries and wildlife research, but, in addition, it has been used to build models to assess pound-dollar exchange rates, insurance damages, and fetal and genetics effects and shared sibling environmental effects on birth weight and gestational age. As

information about it spreads, it will probably be adopted for many more uses unrelated to fisheries and wildlife research.

Courses and workshops on AD Model Builder have been conducted at many locations in the United States and Europe.

The ADMB Foundation has created two student awards, one for an attendee of the annual Tuna Conference at Lake Arrowhead, California, and the other for an attendee of the annual meeting of the American Fisheries Society. The award for the 2009 Tuna Conference was won by Eunjung Kim of the University of Hawaii, but there was no award for the 2009 AFS meeting.

Dr. Fournier received the prestigious Ricker Award for 2009 from the American Fisheries Society. It was based not only on his work with AD Model Builder, but also on his long record of contributions to fisheries stock assessment, such as his pioneering paper on integrated analysis (Fournier, David, and Chris P. Archibald. 1982. A general theory for analyzing catch at age data. *Canad. Jour. Fish. Aquatic Sci.*, 39 (8): 1195-1207).

Additional information on AD Model Builder can be found at its web site, <http://admb-project.org/>. Complimentary subscriptions to its newsletters can be obtained from newsletter@admbfoundation.org.

Submitted by Bill Bayliff

Fellow Merrell concurs with Beamish

President Beamish's "Message" in the September/October 2009 issue highlighted an often-overlooked idea: the need to communicate to the concerned public what we know and perhaps more important, don't know, about current controversial fishery issues. I agree that AIFRB is uniquely situated to speak and act without the administrative and ethical constraints on scientists representing state and federal fishery agencies.

We should find ways to tell people what they need to know to make intelligent decisions.

Ted Merrell

A Book of Interest

Science at Sea:

Meeting Future Oceanographic Goals with a Robust Academic Research Fleet

Authors

Committee on Evolution of the National Oceanographic Research Fleet;
National Research Council Authoring Organizations

Description

The U.S. academic research fleet is an essential national resource, and it is likely that scientific demands on the fleet will increase. Oceanographers are embracing a host of remote technologies that can facilitate the collection of data, but will continue to require capable, adaptable research vessels for access to the sea for the foreseeable future. Maintaining U.S. leadership in ocean research will require investing in larger and more capable general purpose global and regional class ships; involving the scientific community in all phases of ship design and acquisition; and improving coordination between agencies that operate research fleets.

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Submitted by Allen Shimada

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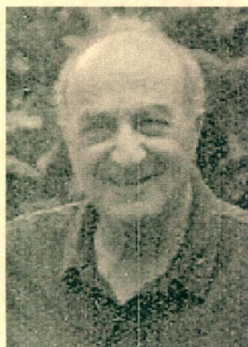
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Last Founding Member Passes

Al Collier on November 29, 2009

Submitted by Bernie Skud and Sammy Ray

Other Losses



Fellow JAMES JOSEPH

JOSEPH, JAMES 1930 to 2009 Dr. James Joseph, Director of the Inter-American Tropical Tuna Commission (IATTC) from 1969 to 1999, died suddenly on December 16, 2009. He was born in Los Angeles in 1930, the youngest of Paul and Julia Joseph's 13 children. After graduating from high school, he entered Humboldt State University in Arcata, California, where he obtained a B.S. degree in 1956 and an M.S. degree in 1958. He also served in the U.S. Army from 1952 to 1954. He was hired by the IATTC in 1958, and spent the next two years in Manta, Ecuador, studying baitfishes and tagging tunas. Because of his obvious ability, he was named Principal Scientist of the IATTC in 1964. In 1967, he earned his PhD from the University of Washington, where he studied population dynamics, and in 1969, he became the Director of the IATTC, a post he held until his retirement in 1999. In 1958, he married Patricia Duffy, of Eureka, California, his life's sheet anchor; they had two sons, Jerry and Michael. For Dr. Joseph, fisheries conservation was not just a job, but a calling. His professional life was dedicated to the study, management, and conservation of marine resources, particularly the tuna stocks of the eastern Pacific Ocean. His tenure as Director of the IATTC was marked by great changes and upheavals in the fisheries for tuna, and his vision and leadership were a crucial factor in resolving the often contentious differences that arose among the countries, industries, and people involved. He commanded the highest respect and admiration for his extensive knowledge of all matters related to fisheries, his dedication, his fairness, and his extraordinary ability to get things done. He had the gift of finding the common ground among conflicting parties, and of bringing about consensus where none seemed possible. His reputation for unimpeachable probity made him perhaps the most widely respected and admired figure in international fisheries management. His uncanny knack for making everybody feel that they mattered, his ability to get along with a wide variety of people of every social, cultural, and national background, and his unique perspective on many matters may have reflected his eclectic background: his Lebanese ancestry, his upbringing in east Los Angeles, his experiences living abroad, and his constant and extensive travels all over the world. Jim thought, rightly, that in the complex world of fisheries conservation and management, in which many different parties - governments, fishers, processors, environmentalists, scientists - have an interest, no lasting solution was possible unless all parties were involved. Examples abound, but perhaps the most striking is the 1999 Agreement on the International Dolphin Conservation Program, Jim's swansong at the IATTC. This groundbreaking achievement, a model for all other fisheries conservation agreements, would have been impossible without his leadership, and is a testament to his vision, his persistence, and his constant conviction that doing the right thing in the right way is worth whatever effort it takes. Although the protection of dolphins was a major concern for the IATTC, Jim never lost sight of its principal responsibility, the study and conservation of tunas. During his tenure, the IATTC staff pioneered methods for stock assessment of tunas - the population dynamics of yellowfin tuna in the eastern Pacific are probably better understood than those of any other tuna stock in the world - and the IATTC's Achotines Laboratory in Panama was established, and became a world leader in research into the biology of tunas. Dr. Joseph served on numerous advisory groups dealing with marine science and conservation, in the United States and elsewhere, including the U.S. National Academy of Sciences, Department of Commerce, and Department of the Interior, the United Nations, and the UN Food and Agriculture Organization. He also served as a technical advisor to many organizations and institutions, national and international. He lectured widely at conventions, universities, and institutions all over the world, published numerous papers and articles in scholarly and trade journals, and co-authored three books. After his retirement in 1999, Dr. Joseph, with an energy and enthusiasm that would be the envy of people half his age, continued to serve as advisor and consultant to governments, international organizations, and private and public institutions. At the time of his death, he was Chairman of the Science Committee of the International Seafood Sustainability Foundation, an organization which he was instrumental in establishing and which reflected his approach of bringing all parties together to resolve the problems of marine resource conservation. Dr. Joseph was an affiliate professor at the University of Washington and at the Universidad Nacional Autonoma de Mexico. His many awards and honors include the Distinguished Alumnus Award, Humboldt State University; Outstanding Achievement Award for Contributions to Marine Science, Portuguese Historical Society, San Diego; Outstanding Graduate in Fisheries, Humboldt State University; Nautilus Award, Marine Technological Society; Dave Wallace Award, Nautilus Press, Inc.; Docteur Honoris Causa, Universite de Bretagne, France; Roger Revelle Award, San Diego Oceans Foundation; Al Merito Pesquero Award, Ministry of Commerce of Ecuador; Condecoracion del Orden Antonio Jose de Sucre, Government of Venezuela. In addition, the IATTC received the Carl L. Sullivan Fishery Conservation Award of the American Fisheries Society in 1994. Jim's work left him less time than he would have liked for other activities, but he would always make time for his two abiding passions: first and foremost, his family - he was a devoted husband, father, and grandfather - and the outdoors, where his adventures would often make for great stories afterwards. He is survived by his wife, Pat, sons Jerry and Michael, daughters-in-law Teri and Miranda, grandchildren, Thai, Chae, Judah, Kyra, and Brian; his brothers John, Paul, and Raymond; his sisters Anne, Maxine, and Virginia; and by friends without number all over the world. Jim was an inspiration to everyone who knew him, and his passing is a tremendous loss not only to his family and his myriad of friends and colleagues, but to fisheries science and conservation. "He was a man, take him for all in all, We shall not look upon his like again." In lieu of flowers, contributions may be made to the James Joseph Scholarship Endowment at Humboldt State University, Gift Processing Center, 1 Harpst Street, Arcata, CA 95521-8299.

From: San Diego Union-Tribune on December 22, 2009

For those of you who may wish to send a note to Patricia Joseph, their home address in 2790 Palomino Circle, La Jolla, CA 92037.

VICTOR GREGORY BURRELL JR., A well known non member succumbs to leukemia

Victor Gregory Burrell, Jr. Charleston - Entered into eternal rest on the morning of December 20, 2009, Victor Gregory Burrell, Jr., Ph.D, widower of Katherine Stackley Burrell. Residence, Charleston, SC. Vic was born September 12, 1925 in Wilmington, NC, the son of Agnes Townsend and Victor G. Burrell. He grew up in Florence, SC, graduating from Florence High School. He entered the U.S. Navy in 1943 and saw action in the South Pacific at Okinawa and Ie Shima. After the war, he received a baccalaureate degree from the College of Charleston. He then worked in a family meat packing business and owned and operated a charter boat and oyster business for several years. He returned to school at the College of William and Mary and earned Masters and Doctorate degrees in Marine Science. While at William and Mary, he worked at the Virginia Institute of Marine Science as a field party chief for several programs and helped establish the Marine Advisory Program there, becoming the first industry liaison officer. He served as scientist on several joint Canadian, Russian and U.S. cruises in the North Atlantic (IGNAF). He returned to SC in 1972 as an associate marine scientist at the SC Marine Resources Research Institute. In 1973, he became assistant director and in 1974 the director. Using the methodology of the IGNAF program, he initiated the Marine Mapping and Assessment Program (MARMAP) for the South Atlantic coast of the U.S. which was the first nationwide monitoring and assessment activity in the country. He held adjunct faculty appointments at the College of Charleston, Medical University of S.C., and The Citadel. He retired in 1991 and since that time has written histories of S.C. fisheries, and he continued to publish scientific papers. He helped to organize the S.C. Fisheries Workers Association and was a charter member of the Southeastern Estuarine Research Society. He served as its president and was elected an Honorary Life Member. He was active in clam and oyster research and served as president of the National Shellfisheries Association, where he was an Honored Life Member. He also served on the founding board of the S.C. Aquarium. He was chosen Fishery Conservationist of the Year in 2007 by the South Carolina chapter of the American Fisheries Society. Dr. Burrell was chosen an Alumnus of the year at the College of Charleston in 1963 and was president of the Alumni Association. He was a charter member of All Saints Episcopal Church in Florence, SC and served on its first vestry. He and his late wife, Katherine Stackley Burrell, were charter members of the Florentine Society and members of the Authorian Dance Club in Florence. In Charleston, they were members of the James Island Dance Club. He was a former member of the Sons of the American Revolution and Sons of Confederate Veterans. He was an active member of Saint James Episcopal Church in Charleston, serving on the vestry and as senior warden on several occasions. He is survived by four daughters; Cheri Gray and husband, Robert S., of Midway, GA. Cathey Farley and husband, Daniel J., of Little River, SC, Charlene Bernotas and husband, Rick, of Columbia, SC and Sally Townsend Burrell of Charleston; eight grandchildren, Emily Perle of Charleston, Merrill Oulla of Scottsdale, AZ, Major Gregory M. Farley of Simpsonville, SC, Daniel S. Farley of Charleston, Katherine Galvagni of Belmont, NC, Brendan J. Farley of Winston-Salem, NC, Ronald C. Burroughs, Jr. and Cecily Burroughs, both of Columbia, SC; and twelve great grandchildren. He was predeceased by his wife, Katherine Burrell and a grandson, Price M. Oulla, Jr. In lieu of flowers, the family suggests memorials may be made to the Episcopal Church Home for Children, 234 Kings Mountain Street, York, SC 29475 or to Bishop Gadsden Residents Assistance Fund, #1 Bishop Gadsden Way, Charleston, SC 29412.

From: Charleston Courier

Changing tides

The bluefin tuna is still being managed badly. A trade ban is on the cards.

In a world where wildlife is under increasing pressure, good management can mean the difference between survival and extinction. In the Atlantic Ocean and the Mediterranean Sea, the management of bluefin tuna is in the hands of the International Commission for the Conservation of Atlantic Tunas (ICCAT)-and the results can scarcely be described as good. Bluefin have been fished from these waters for 7,000 years but in the past 40, while they have been under the aegis of this group, their numbers have declined by three-quarters.

In recent years the organization, which is notorious for ignoring the advice of its own scientists, has been under some pressure. Moves have been made to transfer responsibility for the bluefin to a different body, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This organization has the power to ban trade in an endangered species such as the bluefin entirely.

Earlier this year the diminutive principality of Monaco, and its bluefin-loving Prince Albert, endorsed just such a proposal—which will be discussed next March at the CITES meeting in Doha (Qatar). ICCAT also received a warning shot across its bows from America, which said it would support Monaco's plan unless the commission adopted "significantly strengthened management and compliance measures".

Conservation groups, and many scientists, have been calling for a complete moratorium on bluefin fishing for some time, but have been roundly ignored. This year, however, even the industry has been asking for action. Seafish, a British organization that represents everyone from fishermen to traders, backed a ban. The Atlantis Group, a global seafood company based in Reykjavik, also lobbied for "very radical measures", proposing that the annual quota be halved, to 9,750 tonnes, and be "maintained in accordance with scientific advice". Others have lobbied quietly behind the scenes.

Facing this hail of demands, ICCAT met between November 9th and November 15th in Recife, Brazil, and announced a quota of 13,500 tonnes. Although this was lower than in previous years, it was still far higher than it should have been. A quota of 8,500 tonnes or less would, according to models of the species's population dynamics, have halted overfishing and given a 90% chance of rebuilding stocks by 2019.

Though ICCAT also promised to commit itself to catch levels based on scientific evidence, it proposed to postpone doing so until somewhere between 2011 and 2013, and then only at levels that would give a 60% probability of rebuilding the stock by 2023. It did, however, introduce other measures intended to improve the fishery's management by reducing illegal fishing, improving the collection of data and introducing a new framework for the presentation of scientific advice.

It remains to be seen whether this will be enough to save ICCAT from being gutted of its responsibilities by CITES next year. The agency representing America at the ICCAT meeting said the agreement was a "marked improvement" but added that it was "insufficient to guarantee the long-term viability of either the fish or the fishery". The threat of an American backed CITES listing has not gone away. A final decision will be made after a Food and Agriculture Organization meeting in December that will discuss bluefin, and following a public consultation in America by the Fish and Wildlife Service.

Conservation groups, unsurprisingly, remain on the warpath. The World Wide Fund for Nature (WWF) argued that one study has shown that even a strictly enforced 8,000-tonne quota would have only a 50% chance of bringing about a recovery by 2023. It vowed to take the fight to CITES. Sergi Tudela, WWF's head of fisheries in the Mediterranean, said the announced reduction was an arbitrary political measure for one year. At Doha, the parties to CITES will have to decide whether ICCAT is serious about sticking to scientific advice in future, or if, when the threat to its authority has been removed, it will be back to business as usual.

Submitted by Bill Bayliff

From: The Economist 393, No 8658 (Nov. 21-27) 2009

Hawaiian Green Sea Turtle on Fast Path to Recovery

Despite previous predictions that seriously depleted sea turtle populations could take more than 100 years to recover, Hawaiian green turtles, or honu, have made a clear path to recovery in 30 years.

The green turtle population in Hawaii is a unique genetic stock that nests primarily on sand islands at French Frigate Shoals (FFS) in the Northwestern Hawaiian Islands (NWHI), with a number of foraging grounds dispersed around the Hawaii Archipelago. In the early 1970s, this population depended on about 150 females nesting in the NWHI. While the historical population size is unknown, the population at the time was without a doubt severely depleted, due to unsustainable harvest at both foraging and nesting grounds that continued until the mid-1970s, as well as habitat destruction at nesting grounds that occurred during the 1940s.

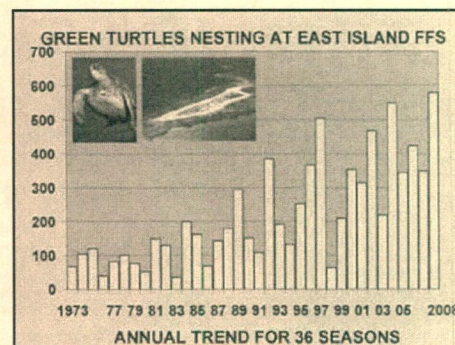
The habitat damage at FFS ceased by the early 1950s, and harvest was prohibited in 1978 when all green sea turtles in the United States were listed as threatened and became fully protected under the US Endangered Species Act (ESA). Subsequently, the number of nesting females has been increasing at an average rate of 5.7 percent annually.

In 2008, the marine turtle research team from the National Marine Fishery Service (NMFS) Pacific Islands Fisheries Science Center—headed by Dr. George Balazs—counted 589 females at East Island in FFS, a dramatic increase from 67 females counted in 1973. The actual number of females that nested in all of NWHI in 2008 is estimated to nearly double of what was counted.

At present, all green sea turtles in the United States are listed together, meaning that the recovery of the Hawaii stock alone will not result in removing green turtles from the threatened list (delisting), the ultimate goal of species recovery under the ESA. The ESA allows independent listing, classifying and delisting for species subpopulations through a classification called the Distinct Population Segment (DPS). NMFS and US Fish and Wildlife Service plan to conduct the DPS review of all green turtles under the ESA, although a start date had not been set. If classified as a DPS, the Hawaiian green sea turtle may then be reviewed for delisting.

In order for a species or DPS to qualify for delisting, the relevant state government and applicable federal agencies must prepare a management plan that is approved during the delisting process. This ensures that recovery will continue and that the species or DPS is not jeopardized by the lack of proper management. State management can allow for sustainable use of sea turtles. Native Hawaiians and communities have expressed their desire to continue to take honu. The harvest was prohibited more than three decades ago because of concern about the worldwide decline of sea turtles. However, the federal review and delisting process can take years.

From: Pacific Island Fishery News, Summer 2009



Pending World Record Brown Trout Caught in Michigan, USA

By Joel Shangle, ESPNOutdoors.com

Tom Healy on September 9, 2009 might have eclipsed (certification-pending) a 17-year-old world record with a 41 lb 7 oz brown trout pulled out of Michigan's Manistee.

Healy caught the fish on the Manistee with guide Tim Roller of Ultimate Outfitters. Healy, a retired construction manager from Rockford, has fished with Roller for 15 years, but when Roller slipped the net over Healy's bubba brown and they got a good look at the fish, all semblance of protocol went out the window as the sheer size of the beast started to sink in.

"The first picture of that fish we got in the boat, I handed my cell phone over and said, 'Here, take a picture!' but we had to wait forever because I was laughing too hard to pick [the fish] up," Roller said. "I don't really have a good concept of how long we fought that fish because you lose the concept of time. I'm still just trying to get a handle on it all."

The fish -- if everything checks out with the IGFA -- would surpass the standing all-tackle world record of 40 pounds, 4 ounces caught in Arkansas' Little Red River in 1992 by Harry "Rip" Collins. It easily breaks the Michigan state record of 36 lb 13 oz caught in 2007.

Michigan DNR biologists Todd Kalish and Mark Tonello weighed the fish in front of a live TV camera from local news stations.

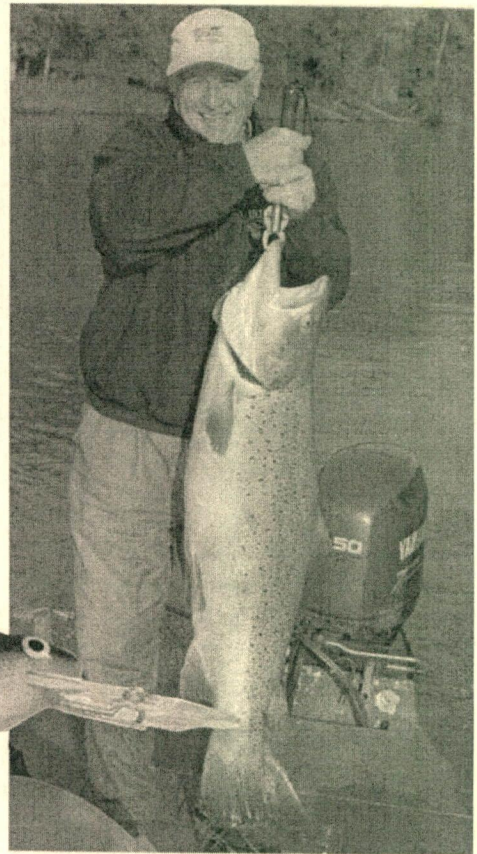
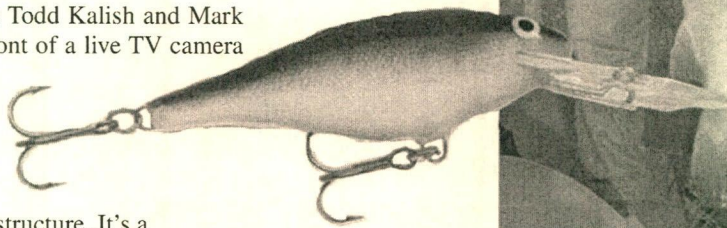
Healy hooked the big brown while drifting the Manistee, casting a

No. 8 silver-colored

Rapala Shad Rap to shoreline structure. It's a

common technique in the late summer and early fall, when the Manistee's salmon are aggressively pursuing forage.

From: International Angler 72(6) November-December 2009



Tom Healy on September 9, 2009 might have eclipsed (certification-pending) a 17-year-old world record with a 41 lb 7-oz brown trout pulled out of Michigan's Manistee. The immense fish ate a No. 8 Silver-colored Shad Rap.

Greedy dogfish blamed for Massachusetts fishery's problems

The Associated Press

CHATHAM, Mass. — The sea air isn't all that salty when fishermen in the Cape Cod town of Chatham talk about the hated spiny dogfish. Fishermen consider the small shark, renowned for its stunning appetite, the vermin of the ocean. They say the once-threatened dogfish has rebounded under federal protections to an insatiable mass that's devouring more valuable and scarce fish that regulators are trying to restore, such as cod, while it destroys nets, steals bait and eats catch right off their hooks. "It's a (expletive) plague of locusts is what it is," hook fisherman Peter Taylor said. "I don't care if I make a penny on dogfish, we just need to kill them." Fishermen want to catch more of the ornery, schooling predator to dent its population and make more money off it, but rules forbid that.

Federal regulators say though fishermen see dogfish everywhere, "they're not seeing the whole picture," said Maggie Mooney-Seus, a National Marine Fisheries Service spokeswoman. Still, the dogfish dispute has prompted regulators to do a fresh assessment of the stock and how it's measured, beginning in January. Paul Rago, a National Marine Fisheries Service biologist, said he was confident dogfish have been well managed but admits anxiety amid the questions. "It's always a concern to me that if we're off on some assumption, we've missed something, you know, it has immediate outcomes," he said. "It's fine

for us to say, 'Whoops,' But for the guy that's at the end of that thing, it's not acceptable." In the late 1990s, the dogfish population fell to critically low levels as fishermen targeted females.

Regulators say the stock is now stronger and more abundant near shore, where fishermen see them, but remains vulnerable. Scientists project declines in coming years because males outnumber the slow-maturing, unproductive females.

The despised dogfish is a "perfect scapegoat" for the fishery's problems, said Sonja Fordham, a shark specialist with the International Union for Conservation of Nature who blames decades of overfishing.

From: New Bern (NC) Sun Journal, October 14, 2009

South Atlantic Council Approves Measures to Address Overfishing of Nine Snapper Grouper Species

Finally shutting the barn door! Anyone seen the horse? Ed.

Measures include deepwater area closure for specific species, annual catch limits

Nine of the 10 species currently listed as undergoing overfishing in the South Atlantic will be addressed through management measures outlined in Amendment 17B to the Snapper Grouper Fishery Management Plan, approved by members of the South Atlantic Fishery Management Council during its December meeting in Atlantic Beach, NC. Among the measures is a deepwater closure to help protect warsaw grouper and speckled hind, two deepwater species extremely vulnerable to overfishing. The closure will also help protect other deepwater species where release mortality is estimated at 100% for the multi-species fishery, and ensure catches are below the Annual Catch Limits (ACLs) for these species. The reauthorized Magnuson-Stevens Fishery Conservation and Management Act requires establishment of ACLs and Accountability Measures for species undergoing overfishing by 2010 and all species managed by the regional fishery management councils by 2011.

If approved, the closure will affect federal waters in the South Atlantic region from approximately 240 feet deep seaward and prohibit fishing for or possession of speckled hind, and warsaw grouper, as well as snowy grouper, blueline tilefish, yellowedge grouper, misty grouper, queen snapper, and silk snapper. The deepwater closure excludes golden tilefish, a species generally found over mud bottom and not likely to co-occur over the hard bottom habitat preferred by speckled hind and warsaw grouper. The closure is based on the Council's Scientific and Statistical Committee's recommendation that an Allowable Biological Catch of zero (0) landings be implemented for both speckled hind and warsaw grouper. Currently, fishermen are allowed to keep one fish per vessel per trip and sale is prohibited for these two species. The amendment will prohibit all fishing for, possession, and retaining speckled hind and warsaw grouper.

In addition to warsaw grouper and speckled hind, golden tilefish, snowy grouper, black grouper, black sea bass, gag, red grouper, and vermilion snapper are currently listed as undergoing overfishing. Additional measures in the amendment include a reduction in the snowy grouper bag limit to one fish per vessel per trip; establishment of a combined ACL for gag, black grouper, and red grouper of 662,403 lbs. (gutted weight) for the commercial fishery, and 648,663 lbs. (gutted weight) for the recreational fishery; an allocation of 97% commercial and 3% recreational for the golden tilefish fishery based on landings history; and establishment of accountability measures as necessary.

The Council held a series of public hearings in early November 2009 from Newport News, VA to Key Largo, FL that included Amendment 17B measures, as well as providing a written comment period. Fishermen attending the Key Largo hearing were especially concerned about the negative economic impacts of a deepwater closure, noting that deepwater areas are in close proximity to shore in the Keys. Charter captains noted the cumulative impacts of regulations on their businesses, including a shallow-water grouper closure that begins January 1, 2010 through April 2010. Fishermen in North Carolina also noted the negative impacts to the commercial fishery for blueline tilefish.

The Council reviewed all comments before voting 8 to 5 to approve Amendment 17B. The amendment will be forwarded to NOAA Fisheries Service for review and approval by the Secretary of Commerce. If approved, regulations may be implemented by late 2010.

The Council continued to work on Amendment 17A to end overfishing of red snapper and rebuild the stock. At the Council's request, an interim rule to close the red snapper fishery for both commercial and recreational fishermen becomes effective January 4, 2010. Amendment 17A includes a provision to extend the red snapper closure plus alternatives for large closed areas where fishing for all snapper grouper species would be prohibited to address the high mortality associated with discards. A 2008 stock assessment for red snapper in the South Atlantic region shows the stock to be overfished and undergoing overfishing at eight times the sustainable level. The controversial closures target areas where red snapper are most commonly landed. Concern

about the proposed closures resulted in several hundred fishermen attending public hearings held in Cape Canaveral and Jacksonville, FL in November. After reviewing public comments, and after much discussion, the Council chose a preferred alternative for a closure encompassing a depth of 98 feet to 300 feet beginning just north of Charleston, SC and extending slightly southward of Melbourne, FL.

The Council will continue to review its preferred management alternatives during its March 2010 meeting in Jekyll Island, GA and is expected to approve Amendment 17A during its June 7-11, 2010 meeting in Orlando, FL. The Council has requested that an updated assessment for the South Atlantic red snapper stock be available for review by its Scientific and Statistical Committee in late 2010, before management measures proposed in Amendment 17A would be implemented.

The next meeting of the Council is scheduled for March 1-5, 2010 in Jekyll Island, GA. For additional information regarding Council meetings, including briefing book materials and summary motions, visit www.safmc.net or contact the Council office.

The South Atlantic Fishery Management Council, one of eight regional councils, conserves and manages fish stocks from three to 200 miles offshore of North Carolina, South Carolina, Georgia and east Florida.

Press Release South Atlantic Fishery Management Council, December 15, 2009

Ed. Note: Speckled hind and warsaw grouper were already devastated 15 years ago. A one fish per day bag limit has only perpetuated the myth that viable populations of these species continued to exist.

South Atlantic Fishery Management Council News Release

Menhaden: Two Views

One: Menhaden harvest cap extended through 2013

By Karl Blankenship

The Atlantic States Marine Fisheries Commission has approved a three-year extension to its menhaden harvest cap in the Chesapeake Bay, extending the limit enacted in 2006 through 2013. The original commercial harvest cap of 109,020 metric tons was set by the ASMFC's Menhaden Management Board as a "precautionary" action while studies were undertaken to determine whether the small, oily fish was suffering "localized depletion" in the Chesapeake. Although the commission's stock assessments have consistently shown the menhaden stock is not overfished along the coast, many anglers and some scientists have contended that there are too few fish in the Bay to provide food for predators such as striped bass, or to provide other ecosystem services, such as filtering algae from the water.

Much of the research to answer that question is not completed, though, and Virginia officials sought the extension. Unlike other species, the menhaden catch is regulated by the Virginia General Assembly, and unless it could approve the extension when it meets in January, the cap would expire. But the commission, which approved the extension in November, cut the original proposal for a five-year extension to three years, and said it would consider the need for additional actions each year. Conservation groups have been pressing for the ASMFC to incorporate ecosystem considerations into its management decisions.

The commission is responsible for managing migratory species along the Atlantic coast and includes representatives from all East Coast states and federal agencies. "If the ASMFC sees this extension as just another three-year vacation from managing menhaden, then they're doing this fish and all the predators that depend on it a great disservice," said Ken Hinman of the National Coalition for Marine Conservation. "We'll continue to press them to keep the public's demand for a new approach, one that protects menhaden's role as prey, on the front burner."

Ron Lukens, the senior scientist for Omega Protein Corp., said the company supported the continuation of the cap for another three years to conduct research, although he said the menhaden population remains healthy. "We have seen a growing abundance of availability," he said. Omega's catches have been well below the cap since it was established in 2006, leading some to say the reduced catches are the result of a shrinking population. "I can tell you factually that is not true. There are plenty of fish," Lukens said. He also said that Omega has been catching larger fish, which contain more of the fish oil that the company seeks. Omega operates the menhaden fishing fleet out of Reedville, VA, and is the only company affected by the action. Menhaden, measured by weight, are by far the largest commercial catch in the Bay. The fish are taken to the processing plant, where they are used to make products such as Omega 3 oils found in medicine. Lukens said Omega recognizes the "tinder box situation" surrounding the menhaden operation. When the ASMFC originally considered a cap, it drew more than 26,000 comments-by far the most in its history-most of which supported the cap, or closing the fishery altogether. "We have fundamentally tried to avoid getting too close to the cap," Lukens said.

From: Bay Journal, December 2009

Menhaden View 2

Menhaden board repeatedly discards public's input

By Charles Hutchinson

At its November 2009 meeting, the Menhaden Management Board of the Atlantic States Marine Fisheries Commission extended the Bay cap on the harvest of menhaden for reduction. For the last five years or more, there has been increasing frustration on the part of the public with the perceived unwillingness of this board to actually manage this species. In public hearings on the cap—both in 2005 and presently—the public rejected the cap and asked for action to reduce the harvest without receiving any satisfaction. The track record of the ASMFC is hardly impressive. An examination of why this unacceptable performance level continues seems warranted. It would appear that there are two principle reasons:

- There is a structural flaw organizationally.
- The overdependence on “science” for decision making.

The 1993 version of Title 16 Conservation Chapter 71-Atlantic Coastal Fisheries Cooperative Management Act sets forth the following: “The responsibility for managing Atlantic Coastal fisheries rests with the States, which carry out a cooperative program of fishery oversight and management through the Atlantic States Marine Fisheries Commission. It is the responsibility of the Federal government to support such cooperative interstate management of fishery resources.” It would seem to be a rational approach to fishery conservation: Have the states—who should know best what is happening in their waters—control that which is in their collective best interest. Each of the 15 states who make up the ASMFC has three commissioners to represent their state and, hopefully, the region as a whole.

What is missing here? There is no oversight at the Federal level with respect to how well the commissioners perform their tasks. Two attempts have been made to deal with the menhaden issue at the Federal level. In 2008, two bills were introduced in the House to reduce/eliminate menhaden harvesting for reduction purposes, which failed to get out of the subcommittee on fisheries. In 2009, Sen. Ben Cardin’s draft bill dealing with Bay restoration included a provision for the elimination of commercial fishing for menhaden in the Bay in the draft version. It did not survive to be included in the bill as introduced. While there may have been several reasons to drop this provision, one of the major, if not the major factor, was the jurisdictional issue as to which committee could deal with fisheries. So here we have a public resource being used for private enterprise, an agency of the government which has chosen not to deal with the issue, and the public has no recourse through Congress even though Congress set up the organizational structure for regulatory process. Sounds like Catch-22 doesn’t it?

Is there a means to provide accountability through federal oversight? Not unless Congress, under pressure from the public, elects to introduce legislation that places the ASMFC under an existing department—such as Commerce—for oversight purposes. Given all of the complications with governmental bureaucracy, this does not seem to be likely. Alternatively, it is not impossible but would take a Herculean effort to lobby the governors of the affected states to direct their respective commissioners to be more proactive and take decisive action to reduce the menhaden harvest.

With regard to the “science” side of this issue, it is understandable that the ASMFC declares that decisions have to be made based on the best available science. Regrettably, fishery science is quite imprecise and does not usually provide a clear path for the decision makers. For example, the assessment model currently used to determine menhaden stock abundance concludes that the stock is not overfished and overfishing is not occurring. Under the research program a different model was developed by a Canadian university that concluded that the stock was overfished, had been overfished for some time and overfishing was continuing. No effort has been made to resolve these radical differences and determine what process should be used.

Similarly, studies were carried out in the Bay—and some outside the Bay—to determine what role menhaden had in the diet of striped bass. One concluded that menhaden were only 15 percent of their diet while the other determined that menhaden made up 75 percent of the diet. Again, no effort was made to determine which was more accurate as it might have a significant effect on the stock assessment procedures. How can one depend on science to answer questions on the need for changes in regulation when differences of this magnitude exist and are not resolved?

Further, the science(s) recognized by the management board are selective at the very least. Despite unchallenged data showing insufficient nutrition for predators, declining catch levels, a declining stock level—even with present stock assessment methodology—and abysmal recruitment levels, these factors seemingly have no influence on the management board. Anecdotal evidence from those who make their living on the water or who are recreational anglers is equally discarded. No consideration has been given to socioeconomic issues as they pertain to the menhaden fishery. The technical committee that advises the board on the science side of the fishery has not been open to methodology other than what has been employed for some time. The advisory panel which provides the board with public input is heavily oriented toward industry representation.

With all of these factors at play with respect to menhaden management, is it unexpected that no action is taken to increase the menhaden by reducing the quantities removed? If one looks at the history of Atlantic menhaden management, one sees a

consistent contraction of the reduction industry over time until there is now only one processor remaining. It appears that the principle reason for closure of the factories was economic. The present processor is the most technologically advanced, which has much to do with its survival. But even so, it is not—according to financial statements—very profitable. If history is any guide, it is probably inevitable that this venture will also fail economically, primarily because of the insufficient supply of raw material.

The big question here is: When and if this happens, will the remaining stock of menhaden be able to reproduce itself and what will be the condition of the dependent predators in these circumstances? Given the present lack of adequate regulation, this may very well happen.

From: Bay Journal, December 2009

France to Claim Exclusive Mediterranean Fishing Zone

CASSIS, France — France intends to assert sovereign rights over marine resources off its Mediterranean coast, declaring a 70-mile Exclusive Zone (EEZ) in a bid to protect dwindling fish stocks. French Environment Minister Jean-Louis Borloo made the announcement during a trip to southern France, saying he hoped that other Mediterranean nations would follow suit to prevent overfishing by fleets from outside the region. Under the 1982 United Nations Convention on the Law of the Sea (UNCLOS), an EEZ gives states sovereign rights over fishing and marine resources, outside its 12-mile territorial waters and up to 200 miles from its shores. France has the world's second largest EEZ after the United States thanks to its many overseas territories, but had not previously staked a claim in the Mediterranean "because there was no justification for doing so," Borloo said. France in 2004 declared an Ecological Protection Zone in the Mediterranean, under the MAR-POL anti-pollution convention, enabling it to prosecute ships that dump waste at sea up to 60 nautical miles from its coast. But Borloo said France needed to go further in order to "protect French fishing, but especially to protect fish." "The French government has decided to declare an EEZ in the Mediterranean ... with a perimeter of approximately 70 nautical miles, corresponding to our existing environmental protection area," he told reporters. "We are changing policy because it is unacceptable for boats from around the world to be able to draw on resources, especially of fish, anywhere except in the 15-mile territorial waters, without any control," he said. He said Paris hoped to "avoid the arrival of powerful industrial fleets in the closed sea of the Mediterranean."

Exclusive Economic Zone?

Under the law of the sea, an Exclusive Economic Zone (EEZ) is a seazone over which a state has special rights over the exploration and use of marine resources. It stretches from the edge of the state's territorial sea out to 200 nautical miles from its coast. In casual use, the term may include the territorial sea and even the continental shelf beyond the 200 mile limit.

Under the terms of the UN convention, an EEZ gives a coastal state the right to regulate fishing activities, explore and exploit all natural resources within the zone's waters, seabed and subsoil. States have the right to determine the fish catch and deliver licenses within their EEZ, while working to prevent over-exploitation in concert with regional and international organizations. France's national fisheries committee welcomed the move, saying it would give "the means to exercise controls, even if we are not talking about shutting down any fisheries." Until now, very few countries have declared exclusive zones in the Mediterranean. Were all coastal states to do, every point in the sea would fall under one or the other state's jurisdiction, Borloo said France hoped to see more countries decree EEZs within the framework of the Union for the Mediterranean "and for us to have a debate among ourselves for the total protection of the Mediterranean." Launched in Paris a year ago, the 43-member grouping aims to foster cooperation in one of the world's most volatile regions, with protecting marine resources one of its main stated goals.

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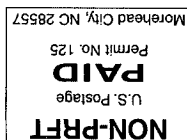
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