American Institute of Fishery Research Biologists

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VOL. 31, NO. 1 JANUARY, FEBRUARY 2002

A Member's Duty: Provide Nominations

AIFRB Outstanding Achievement Awards

We are solicitating nominations for the Outstanding Achievements Awards. This is your opportunity to provide nominations and help AIFRB recognize the individuals and organizations that are making outstanding contributions to our science. Two awards are given for each year.

The Individual Achievement Award for 2003 will be given to an individual who has made significant contributions to the advancement of fishery science. This is the highest award for achievement. Candidates will be rated on the following criteria: significance of publications, exceptional service to the profession, outstanding teaching or training of students, important discoveries or inventions, and significant contributions to the advancement of fishery science. It is important that applicants address each of the criteria thoroughly.

The Group Achievement Award for 2002 will be organizations with outstanding records of scientific contribution to fishery science or fishery resource policy. It is the Institute's highest award for achievement and recognition of organizations that nurture excellence in fishery science. Candidates will be rated on the following criteria: sustained contribution of significant publications, exceptional service of the fishery profession, outstanding teaching or training programs, important discoveries or inventions, and significant contributions to the advancement of fishery science. Again, it is important that applicants address each of the criteria thoroughly.

The nominating letter should include name, address, telephone number, and email address of nominee, a short resume of the nominee, and a letter fully describing how the nominee meets the criteria. Please include your name, address, telephone number and email address.

Nominations for these two awards are due by ***June 3, 2002***. Fishery scientists whose names were submitted and selected as runner-ups last year will also be considered. Submit nominations to Dr. Linda Jones, Northwest Fisheries Science Center. For your information and help in considering nominees, attached are the lists of Individual Outstanding Achievement Awards 1979-2002 and Group Outstanding Achievement Awards 1982-2000.

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

If you have any questions, please contact:

Linda Jones – Linda.Jones@noaa.gov

Jack Helle – Jack.Helle@noaa.gov

Bill Taylor – Taylorw@msu.edu

Individual Outstanding Achievement Award

Year	Recipient
1979	Elbert H. Ahlstrom
1980	James E. Sykes
1981	F. Heward Bell
1982	Richard H. Stroud
1983	Kenneth D. Carlander
1984	David W. Schindler
1985	Peter Larkin
1986	William G. Gordon
1987	William F. Royce
1988	Reuben Lasker
1991	Robert L. Burgner
1992	William W. Fox
1993	Arthur D. Hasler
1994	William E. Ricker
1995	Raymond J.H. Beverton
1996	Reeve M. Bailey
1997	William G. Pearcy
1998	John H.S. Blaxter
1999	Saul B. Saila
2000	John R. Hunter
2001	Kenneth E. Wolf
2002	Fred Utter

Group Outstanding Achievement Award

Year	Recipient
1982	Canadian Journal of Fisheries and Aquatic Sciences
1983	Great Lakes Sea Lamprey Control
1984	Harvesting Technology Division, NMFS, Pascagoula, MS
1985	Sport Fishing Institute
1986	International Pacific Halibut Commission
1988	Southwest Fisheries Center, NMFS, La Jolla, CA
1992	Cooperative Fish & Wildlife Research Units Center & Related Coop Units
1997	International North Pacific Fisheries Commission
1998	The Illinois Natural History Survey
1999	National Fish Health Research Laboratory, USGS, Kearneyville, WV
2000	International Pacific Halibut Commission

Late Nominations: W.F. Thompson Award

Jack Pearce, Committee Chair, would consider late nominations for the W.F. Thompson Award for the best student-written paper. If you know of a paper of exceptional quality in any journal, **Do Not Dawdle**! Contact Jack Immediately! Phone: 508-540-4572; Fax: 508-457-0105; email: buzbay@cape.com

U.S. Department of Commerce Honors AIFRB Members

Among the 200 plus employees and offices of the National Oceanic and Atmospheric Administration receiving in November gold, silver, or bronze medals for service to the U.S. Department of Commerce were two AIFRB members: Mark Helvey, Gold; Mike Sissenwine, Silver.

AIFRB Powered by Hoisin Sauce? West Coast Districts Are Hard Acts to Follow!

A combined meeting of the Northwest Washington and Southwest Washington – Oregon districts featured the now world-famous Ken Chew AIFRB Multi-Course (usually about 10 courses) Chinese Dinner, on February 19, at the China Harbor restaurant, Seattle wherein was consumed "a 5 star imperial Chinese cuisine with garden fresh northwest ingredients."

After dinner AIFRB members, spouses, and friends enjoyed short special presentations of the W.F. Thompson Award for the Best Student Paper in 2001 to Mark Terwilliger (OSU), recognition of the Founders Fund, and the 2002 Outstanding Achievement Award, with the latter recipient, Fred Utter, talking and showing slides about "Some Remarkable Byproducts of an Unplanned Career: The Contagious Power of Cooperative Interaction."

Student dinners were subsidized by the Recruitment Fund of the parent-AIFRB budget.

According to Director Tom Keegan the Northern California District AIFRB hosted a very successful winter banquet on January 19, at The Mandarin restaurant, top of the historic Woolen Mill Building at Ghirardelli Square, San Francisco. Thirty members and guests enjoyed the view of San Francisco Bay and Fisherman's wharf, and each other's company, while feasting on Mandarin Minced Squab and Hot & Sour Soup, Prawns A la Szechwan, Mongolian Beef, Cashew Chicken, Pork A la Mandarin, and Snow Peas with Mushrooms. For dessert, Mandarin Flamed Bananas. The new year of AIFRB activities includes monthly dinner and presentation meetings, service activities (e.g., student paper judging), conference session planning, and other special events.

Keegan, Summer Morlock and Lourdes Rugge organized the January banquet. The next was to be at the Gulf of the Farallones Headquarters conference room at Crissy Field, San Francisco.

At that meeting was a presentation that they had been trying to schedule for over a year. Over the past three years, Fred Griffin, Gary Cherr, and their colleagues, have traveled to Hokkaido, Japan, as part of an NSF grant to observe and gain first hand information on the efforts of Japanese fishery research scientist to rebuild depleted herring populations on Hokkaido. This collaboration included the Japan Sea Farming Association, a fishermen's association involved in restoration of depleted marine stocks throughout the country. A specific research objective was to identify and characterize the molecules on herring sperm that function during sperm activation and fertilization. Fred Griffin, a Research Biologist at the UC Davis, Bodega Marine Laboratory, presented the results of this collaborative effort among scientists and fishermen, summarizing Efforts to Restore Herring Stocks in Japan.

The District provided the pizza, salad, and refreshments at no charge.

On March 21, Dr. Mary Yoklavich (NOAA-NMFS SWFSC, Santa Cruz Laboratory) will talk about her deepwater research on fishes and habitats in and around the Big Creek Ecological Reserve. This presentation will include some video clips and some of the Santa Cruz Lab's latest research using lasers to characterize the seafloor.

Another Founding Member Passes
Fred Cleaver
1916-2002

Dr. Fred C. Cleaver died February 6, 2002, at age 85, in Portland, Oregon. He had been living in Milwaukee, Oregon since 1999 and previously, in Lake Oswego, Oregon.

Dr. Cleaver was born June 27, 1916, in Everett, Washington, the first son of an English sailor and an Iowa farmer's daughter who met on a train near Tacoma, Washington. He grew up in Kalama, Washington, where he graduated from high school in 1933, earning two letters playing football as a 135 pound guard. Dr. Cleaver graduated from the School of Fisheries at the University of Washington in 1941 and received a Doctorate in Fisheries there in 1967.

He belonged to many professional societies including The American Fisheries Society, The American Institute of Fishery Research Biologists, and the Pacific Fishery Biologists. Dr. Cleaver was one of the 26 original founding Fellows of The American Institute of Fisheries Research Biologists in 1956.

From 1936 until his retirement in 1976, Dr. Cleaver worked for the Washington Department of Fisheries, the U.S. Bureau of Fisheries at Bristol Bay, Alaska, the U.S. Fish and Wildlife Service in Honolulu, Hawaii, The Fish Commission of Oregon, and the National Marine Fisheries Services. Dr. Cleaver's duties and assignments included research into the methodologies of determining sustainable yields of various fisheries including Alaskan king crab, salmon, and steelhead, and conducting biological research on various domestic and international fish populations including tuna, flounder and herring. In 1968, he became the program director of the Columbia River Fisheries Program where he managed programs to increase the runs of salmon and steelhead through the operation of hatcheries, establishing bypass fishways at migration obstructions, and installing screens at dangerous river diversions. He wrote and published numerous scientific articles, and reports from his research were instrumental in commercial fishing negotiations with Canada, Japan, and the former U.S.S.R.

In 1941, he married Rosemary Hays of Portland, Oregon. She died in June 1993.

He is survived by his daughters, Celia Andrews of Walla Walla, Washington, Nancy Bonifield of Hillsboro, Oregon, Pamela Wagner and Susan Zumberis both of Portland, Oregon; six grandchildren; and six great-grandchildren; his sisters Marguerite Hicks of Castle Rock, Washington, and Barbara Williams of Seattle, Washington. His brother, Richard died in 1990.

In correspondence to treasurer Allen Shimada, Dr. Cleaver's daughter, Pam Wagner wrote saying that "He was a lucky guy really – he LOVED fish and got to spend his whole life thinking about and working with them and surrounded by outstanding colleagues who shared his passion".

American Rivers Responds: Canning River is Threatened!

— If history guides —

By Pamela A. Miller

The Canning River – More Threatened than Ever.

In your last issue, Bill Wilson, an oil industry consultant, asked why American Rivers listed the Canning River as one of the nation's Most Endangered Rivers.

Today, the Canning River marks the sharp contrast between lands scarred by oil and gas exploration and the wilderness landscape within the Artic National Wildlife Refuge. Forming its western boundary, the Canning River separates the only protected five-percent of Alaska's North Slope coastal plain and foothills from a sprawling industrial complex the size of Rhode Island.

The Canning River's wild character is threatened by pending Congressional energy bills that would open the coastal plain of the Artic Wildlife Refuge to oil drilling. The refuge is a unique area protecting a full spectrum of Arctic habitats that was established in 1960. Polar bears den in drifted snow banks along the Canning River and muskoxen utilize its floodplain willow stands for winter shelter and year-round forage. The Canning provides the most extensive over-wintering habitat for dolly varden and Arctic grayling in the entire refuge, as well as rearing habitat for these species. Artic cisco migrate through nearshore coastal waters. The Canning delta has a unique concentration of large deep lakes and extensive wetlands within the refuge, which supports fish and nest sites for loons, tundra swans, black brant, and long-tailed ducks.

Due to its location on the western border, the Canning River and delta would be the first to face exploration and development. Already, ExxonMobil has proposed gas development on adjacent state lands with a gravel causeway 6 miles away and production wells just a mile from the boundary that would degrade the Canning's remoteness. On nearby Flaxman Island, the oil company is just now cleaning up decades-old drilling wastes and contamination.

Seismic exploration uses convoys of bulldozers and 56,000-ton "thumper trucks" tracking lines hundreds of feet apart that could disturb feeding muskox and denning polar bears. In 1985, a female polar bear abandoned her maternity den on the Canning Delta coast after seismic vehicles tracked within 700' of it – despite a ½ mile buffer zone regulation and monitoring program. Most polar bears den sites are not known and cannot be avoided.

Exploratory drilling is a noisy operation requiring massive amounts of scarce freshwater during winter for ice roads, drill pads, and airstrips, risking over-wintering fish and benthic invertebrate habitats. Compared with areas to the west around Prudhoe Bay where there are thousands of lakes, the Arctic Refuge coastal plain has far fewer. Most are located in the Canning Delta area, and so these lakes face disproportionate threats. Due to limited water sources in the refuge, permanent structures such as gravel mines and reservoirs excavated in river floodplains, desalinization

plants, or gravel roads could be necessary even for exploration. Permanent infrastructure like roads, pipelines, airstrips, reservoirs, gravel mines, and oil processing plants would be constructed for oil production in the Canning River watershed. Despite new advances, a sprawling network of roads and pipelines would result.

What does the record show at Prudhoe Bay and 18 other fields? An average of 400 spills of oil and other toxic substances. During horizontal drilling of a pipeline under the Colville River, 2.3 million gallons of drilling waste were lost and never found. Over 1,000 miles of pipelines, 4,000 exploratory and producing wells, 170 production and exploratory drill pads, 500 miles of roads, 1,100 miles of trunk and feeder pipelines, 2 refineries, many airports, many camps with living quarters for hundreds of workers, and a total of 25 production plants, gas fields, primarily in the floodplains of rivers where at the least they altered the natural environment, and have resulted in stranded fish in isolated pools and loss of riparian willows. Scientists documented significant negative effects of offshore gravel causeways (roads) to nearshore fish habitat.

Margaret Murie, early Refuge advocate and recipient of the Presidential Medal of Freedom, captured the value of the river in *Two in the Far North*, "Although the instant you fly west of the Canning River, man is evident in all the most blatant debris of his machine power, east of the Canning the tundra, the mountains, the unmarked space, the quiet, the land itself, are still there."

Pamela A. Miller was a wildlife biologist for the U.S. Fish and Wildlife Service on the Artic National Wildlife Refuge and studied the effects of Prudhoe Bay oil development. She is now President of Arctic Connections in Anchorage, Alaska and a local supporter of American Rivers "Most Endangered Rivers."

Ms. Miller provided these comments for American Rivers as a result of my request to that organization. –Ed.

Gunderson Represents AIFRB for 4th World Fisheries Congress

At the request of AIFRB president Gary Sakaqawa and of Bernard Megrey, chairman of the International Steering Committee (ISC) for the Congress, Donald Gunderson of the University of Washington will represent the AIFRB on the ISC. The ISC first met in Phoenix in August 2001 and will continue its work primarily through the medium of email.

Mac Crimmon Ailing

Dr. Hugh Mac Crimmon is suffering from Alzheimer's disease and is now in a nursing home. His family may be reached at 108 Harvard Road, Guelph, Ontario NIG3ZZ.

Response: Sampler on Marine Reserves

Ed Joyce Writes:

Editor

I just wanted to tell you that it was really gratifying to see Karl Wickstrom's bleating article reprinted in the last, "Briefs". He complained so bitterly about the gullible media and the lack of justification for actions that propose to restrict his recreational fishing. Yet it was those same media folks he so expertly manipulated to pass a constitutional amendment in Florida to eliminate net fishing a few years ago. An action very much unjustified for most species, and one that could have been passed years earlier by the authority of the Marine Fisheries Commission. The Commission never did so, because the evidence supporting such action was not strong enough to meet the requirements of the law.

I guess it is really true, "He who lives by the sword, dies by the sword!"

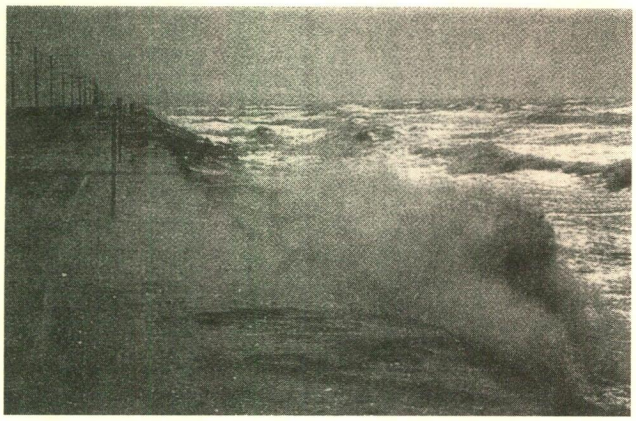
No Time to Lose

Facing the Future of Louisiana and the Crisis of Coastal Land Loss

By Bill Herke, AIFRB Fellow

The extensive marsh of coastal Louisiana was formed on sediment deposited by the Mississippi river over the last 7,000 years. During that time the mudflats that formed were subject to wave erosion, and to subsiding below the water surface as they compacted, but sediment deposition rate exceeded mudflat loss rate, and the mudflats became covered with marsh grasses. The vegetated marsh gradually encompassed a broad band up to 50 miles wide extending from Texas to the state of Mississippi. But the marsh began disappearing in the last century. Of the approximately 4 million acres of marsh existing in 1930, about a million acres have converted to open water, and this conversion is continuing at the rate of about 30,000 acres per year.

The change from increase in marsh area to decrease in area is due to human causes, and I will name a few. Since 1930, massive flood protection levees have been built along



Highway 82, the only east-west highway in lower southwestern Louisiana. Once set back from the Gulf, it is now in danger of begin breached. The chenier highway rests on the last ridge between the Gulf and vast marsh plain.

the Mississippi river nearly to its mouth. The water and sediment formerly over topped the riverbank during high water periods, and the associated sediment and nutrients continually reinvigorated the marsh. The levees now prevent this. In addition, a network of dams on the Mississippi and its tributaries have reduced the amount of sediment reaching the mouth of the river and available for longshore transport and deposition. Also a pervasive network of canals has been dug throughout the marsh to facilitate oil and gas exploration and drilling, and for navigation. This has changed the hydrology of the area, allowing more rapid ingress of salt water into fresh marsh regions and accelerated drainage of fresh water to the Gulf of Mexico. The result has been the death of some of the fresh marsh vegetation, and a resulting erosion of the highly organic soil because the roots are no longer there to hold the soil in place.

The conversion of marsh to open water is facilitated by the fact that the majority of the marsh is less than 3 feet above sea level. Loss of the marsh has extremely serious consequences. The Coalition to Restore Coastal Louisiana is a coalition of individuals, businesses, civic and environmental groups and communities who have come together to work for the future of Louisiana's coast. The Coalition recently published a 57-page report (titled "No Time to Lose") outlining the problem of marsh loss, the economic and environmental losses involved, and the steps necessary to restore the marsh. Some of the economic and environmental losses from not taking these steps are:

1. Loss of protection for oil and gas production facilities. What is now the land-based support center for the Gulf of Mexico's oil and gas industry will become open water; 55,000 jobs could be lost.

2. Louisiana's wetlands and barrier islands protect navigation channels, anchorages, and waterways from winds and waves. The nation's most nationally important port system is at risk.

3. Louisiana's commercial fishery catch (about a billion pounds a year) constitutes about 30 percent of the nation's total, and its recreational saltwater fishing is some of the best in the nation. The marsh serves as the nursery for most of the species landed. The total annual economic-effect loss to fisheries in the year 2050 is estimated to be over $700 million.

4. Wetlands and barrier islands absorb storm surges and blunt the force of high winds, saving lives and property. Marsh loss will force widespread relocation; the economic and cultural costs could be in the billions of dollars.

A plan, titled "Coast 2050", has been formulated to restore Louisiana's coast. It was formulated by five federal

Constance Beach, Louisiana, USA. A harbinger of things to come.

and seven state agencies after a series of 65 public hearings and workshops. The purpose of the plan is "...to sustain a coastal ecosystem that supports and protects the environment, economy and culture of southern Louisiana, and that contributes greatly to the economy and well-being of the nation." The main strategies of the plan include watershed management such as river diversions, hydrological repairs, and barrier island restoration. For example, the Mississippi River Gulf Outlet (a man-made navigation channel) must be closed; funneling vast amounts of sediments into the deep waters of the Gulf must stop; new river deltas must be formed; river water must be moved farther east and west to support marshes there; and seasonally operated locks should be installed in some navigation

channels to reduce salinity stress on marsh grasses. The cost estimate for all these measures is $14 billion over 20 years, but left unchecked, the future land loss would risk many lives and over $100 billion in infrastructure and resources.

In this short note I have barely scratched the surface of the problem, its costs, and the solutions. The complete "No Time to Lose" report can be read on the Coalition's web site www.crcl.org, as can the details of "Coast 2050" on the web site www.lacoast.gov.

Dr. Herke is a board member of the Coalition to Restore Coastal Louisiana (CFCL). He is also a retired fishery scientist who spent over 30 years studying the role of Louisiana's coastal marsh as a nursery for fishes, shrimps, and blue crabs.

From: Sherkin Comment 2001 – Issue No. 28

A Classic Reprinted

Fish Skulls by William K. Gregory
original ed. 1933 416pp.
Prepublication Price $67.58
Krieger Publishing Co. 1-800-724-0025
P.O. Box 9542, Melbourne, FL 32902-9542

Emeritus $ Needed: Kerns Contributes

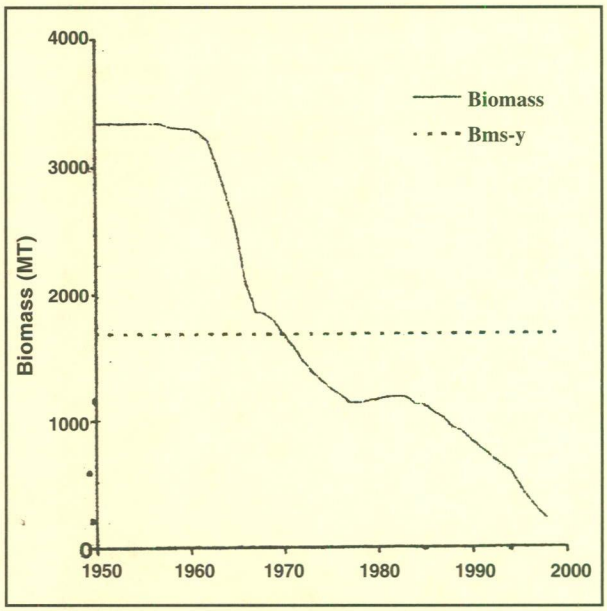
Contributions from emeritus members greatly ease the many strains on the Institute's Treasury. Emeritus Member O.E. "Bud" Kerns has recently made a generous contribution and I'm sure, urges other emeriti to follow his lead.

Petition to the National Marine Fisheries Service For the Listing of the Atlantic White Marlin as a *Threatened* or *Endangered* Species

Much abridged – Ed.

The Biodiversity Legal Foundation (BLF) and James R. Chambers hereby petition to list as *threatened* or *endangered* the Atlantic white marlin, *Tetrapturus albidus* Poey (1860), throughout its known range, and to designate *critical habitat* under the Endangered Species Act.

The Atlantic white marlin merits listing as a *threatened* or *endangered* species under the ESA because its population has declined to the point that it is now **threatened with extinction** throughout its range. The best available scientific information has documented a severe population (or stock) decline caused by commercial overfishing by many nations (targeting swordfish and tunas). Increasingly severe overfishing has been allowed to exist for over 30 years by the International Commission for the Conservation of Atlantic Tunas (ICCAT), which claims management authority for all Atlantic tunas and tuna-like fishes. The population's decline has been documented thoroughly by ICCAT's scientific advisors, the Standing Committee for Research and Statistics (SCRS). Stock assessments conducted by the SCRS represent the consensus of the world scientific community. According to the SCRS's latest stock



WHM-Fig. 4. Biomass trajectory estimated for white marlin with single combined index.

assessment conducted in July of 2000 the population's abundance was last at its long-term sustainable level in 1980. By the end of 1999, its abundance had declined to only 13 percent of its sustainable level. Depicted below is the record of 40 years of decline.

The cause: fishing mortality (fishing pressure) had been allowed to rise dramatically to 8 to 10 times the sustainable level by the end of 1999. At this rate of decline, the species will become *functionally* or *ecologically extinct* well within the foreseeable future (in less than five years) unless dramatic remedial action is taken both nationally and internationally, as we recommend herein. Based on the detailed record developed by the SCRS for ICCAT, it is clear that the existing international and domestic regulatory mechanisms and programs controlling fishing have long been inadequate to conserve white marlin. Domestically, this is the responsibility of the Secretary of Commerce acting though NMFS. The domestic and international fishery management bodies have failed to limit catches sufficiently and protect key habitats (i.e., prime spawning and feeding areas) in order to maintain the white marlin population at its long-term sustainable level (ICCAT's stated management objective). Failure to maintain a healthy white marlin population undermines the objective of the Atlantic Billfish Fishery Management Plan (FMP) (SAFMC, 1988) and fails to comply with the basic requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The latter stipulates that populations of fishery resources are to be maintained at their optimum yield (an abundance greater than the long-term sustainable level) and bycatch (the incidental capture of unintended, unwanted or prohibited species) is to be avoided and minimized.

Petitioners

The Biodiversity Legal Foundation (BLF) is a science-based, non-profit organization dedicated to the preservation of all native wild plants and animals, communities or species, and naturally functioning ecosystems. Through visionary education, administrative, and legal actions, the BLF endeavors to encourage improved public attitudes and policies for all living things. The BLF has tracked changes in the biological status of numerous imperiled marine and estuarine species over the past 10 years.

James R. Chambers is a fisheries biologist with 36 years of professional experience. He is the principal of Chambers and Associates, a scientific consultancy specializing in conserving marine fish and their essential habitats. For the final two years of his 30-year federal government career, he was responsible for management of Atlantic swordfish and billfish in the Highly Migratory Species Management Division in NMFS headquarters. He holds a M.A. degree in Marine Science from the Virginia Institute of Marine Science, College of William and Mary.

The white marlin *(Tetrapturus albidus)* is a sleek, powerful fish of the open ocean colored deep blue on the upper half of its body and silvery-white on its lower half, armed with a long, sharp-pointed bill (for feeding and defense) and having a long tapered dorsal fin.

White marlin grow to at least 9.2 feet. (280 cm) total length (TL) and 181 pounds (82 kg) although few reach a weight of 125 pounds. Females grow larger than the males. There are no morphological features or color patterns to differentiate the sexes. White marlin females mature on average at about 45 pounds and a length of 61 inches LJFL (lower jaw fork lenght) while males mature at about 40 pounds and about 55 inches LJFL. White marlin first become vulnerable to commercial fisheries at about 30 pounds. They may live for 25 to 30 years of age, producing dramatically larger numbers of eggs with increasing size.

The Istiophoridae (billfishes) are apex or top predators of the open ocean. They are some of the largest and swiftest animals in the sea and display behavioral, anatomical, and physiological adaptations for a mobile open-sea existence.

White marlin are slightly smaller than Pacific sailfish and about double the maximum size of Atlantic sailfish and the various spearfish.

A pelagic and oceanic species, white marlin usually swim above the thermocline in waters with surface temperatures of more than 22°C. They frequent the higher latitudes of the northern and southern hemispheres only during their respective warm seasons, phased six months apart. White marlin are found only in the Atlantic Ocean and adjacent seas (SCRS/00/23). They are epipelagic, being found primarily in the upper 300 to 600 ft (100m to 200m) of open-sea areas, and neritic (utilizing the waters over the continental shelf), and are also found in coastal waters seasonally. White marlin can be found off the American East Coast from Nova Scotia to Brazil, and the eastern side of the Atlantic Ocean from southern Europe (including the Mediterranean Sea) to South Africa (NMFS, 1999a). While their abundance has declined by more than 90 percent, we are aware of no published studies documenting a collapse in their range. Anecdotal evidence suggests their inshore abundance has diminished with the decline in their abundance. They now appear to be found predominantly in only their essential habitats. Their key spawning and fall feeding areas are located at the extremes of their range. Concentrations of white marlin are seen in the summer and the early fall in the Middle Atlantic Bight, the northern Gulf of Mexico, and off La Guaira, Venezuela.

White marlin migrate thousands of miles annually throughout the tropical, subtropical, and temperate waters of the Atlantic Ocean and its adjacent seas. As adults, they feed at the top of the marine food web. Their food resources (small fishes and invertebrates such as squid that can be swallowed whole) are distributed in patches and occur at relatively low densities compared to prey for more generalized (lower trophic level) feeders.

White marlin are sought as a premiere big game species in the United States, in the Caribbean region and throughout

their Atlantic Ocean range. White marlin are also taken commercially by longline, entanglement or gillnet fisheries and by purse seine fisheries which target swordfish and the larger tunas, especially in the western Atlantic. A small number are taken by directed artisanal fisheries using small craft in the Caribbean and along the South American coast. They are also caught incidentally (as bycatch) in tropical tuna longline fisheries that use shallow gear deployment.

The highest reported catches of white marlin by the world's industrial fleets have occurred historically in the western central Atlantic (including the Gulf of Mexico and Caribbean), across the central Atlantic in a broad band on either side of the equator lying between Africa and South America, and in a large area off Brazil extending eastward to well beyond the Mid-Atlantic Ridge and nearly to Africa.

A dramatic decline in recreational landings is obvious beginning in the late 1980s. This decline was the result of voluntary efforts by this sector to promote conservation of the declining billfish populations. During the same period, bycatch of marlin by the commercial sector actually increased. It did so in proportion to the increasing effort (total hooks fished per year).

Many anglers consider marlin as the premiere big game fish, worldwide, and billfish anglers are the elite of the recreational fishing community.

The white marlin is the primary billfish caught from Cape Hatteras, north. They are caught in the greatest number off the U.S. mid-Atlantic coast and are thus a mainstay of this important billfish fishery.

The world's largest sport fishery for the white marlin occurs in the summer from Cape Hatteras, NC, to Cape Cod, MA, especially between Oregon Inlet, NC, and Atlantic City, NJ. Successful fishing occurs up to 80 miles offshore over submarine canyons and the edge of the continental shelf, extending from Norfolk Canyon in the mid-Atlantic to Block Canyon off eastern Long Island (Mather, *et al.*, 1975). Concentrations are associated with rip currents and weed lines (fronts), and with bottom features such as steep drop-offs, submarine canyons and shoals (Nakamura, 1985). The spring peak season for white marlin sport fishing occurs in the Straits of Florida, southeast Florida, the Bahamas, and off the north coasts of Puerto Rico and the Virgin Islands. (We believe these are their primary spawning grounds.) In the Gulf of Mexico, (post-spawning) summer concentration are found off the Mississippi River Delta, at De Soto Canyon and at the edge of the continental shelf off Port Aransas, TX, with a peak off the Delta in July, and in the vicinity of De Soto Canyon in August. In the Gulf of Mexico adults appear to be associated with blue waters of low productivity, being found with less frequency in more productive green waters.

The best scientific and commercial information available makes it abundantly clear that Atlantic white marlin should be listed on the basis of four factors: (A) overutilization for commercial purposes, (B) inadequacy of existing regulatory mechanisms, (C) predation, and (D) other natural and manmade factors affecting its continued existence.

Commercial fishing is responsible for at least 99.89 percent of the current reported mortality of Atlantic white marlin. Recreational tournaments are responsible for the remainder - 0.11 percent (see Table 1). Non-tournament sport fishermen (individuals and charter boats) take a few additional white marlin, but their number is likely quite small and insignificant in view of the very high release rate - 99 percent as self-reported - increasingly observed in U.S. and international billfish fisheries.

The primary commercial gear-types used are drift or pelagic longlines, drift entanglement nets or gillnets and purse seines.

Longline gear takes 92 percent of white marlin reported landed by all ICCAT members in the Atlantic Ocean in 1999.

Ed. Note. The entire, highly-documented, petition is 90 pages long and has an additional 21 appendices. Contact BLF or NMFS for copies.

A Meeting of Note

Sixth Marine and Estuarine Shallow Water Science and Management Conference, March 18-20, Atlantic City, NJ. Ten sessions dealing primarily with dredging, dredged material and harbor maintenance as these affect the marine environment. Contact: Ralph J. Spagnolo at 251-814-2718 or Fran Reilly at 540-286-0072.

Sorry, but the announcement reached me too late for timely notice in Briefs. –Ed.

Western Salmon Losing Federal Protection?

A judge's ruling to overturn federal protection for a single population of salmon has prompted the National Marine Fisheries Service to launch a review of at least 20 other populations, and possibly overhaul its policies toward hatchery-raised salmon.

Federal Judge Michael Hogan in Oregon ruled that the wild population should not be viewed separately from the thousands of other hatchery fish born each year. He stated in his decision "that NMFS' listing of Oregon Coast coho salmon under the Endangered Species Act creates the unusual circumstance to two genetically identical coho salmon swimming side by side in the same stream, but only one receives ESA protection while the other does not."

Other species of western salmon could be included in the ruling and possibly lose federal protection.

From: International Angler 64 (1), January-February 2002

Federal Columbia/Snake salmon funding and recovery work seen as inadequate

An American Rivers analysis of funding for salmon recovery on the Columbia and Snake rivers for fiscal 2002 has found federal spending to be inadequate to implement the federal salmon recovery plan released one year ago. American Rivers called for the administration and Congress to mend broken promises by doing far better in fiscal 2003.

The $435.6 million in funding allocated to the Columbia-Snake basin's imperiled salmon and steelhead was about $300 million short of the amount needed to adequately implement the salmon plan. The funding gap represents a failure by the administration and Congress to make good on federal commitments – a failure that is likely to reinvigorate public debate over partial removal of the lower four snake River dams.

In December 2001, the federal government announced its plan to recover stocks of salmon and steelhead in the Columbia and Snake Rivers listed under the Endangered Species Act. Salmon advocates have long sided with the majority of scientific opinion in the region, insisting that an effective recovery plan must include partial removal of the four dams in addition to addressing other factors, such as inadequate river flows and outdated hatchery practices. However, the federal salmon plan relies only on unspecified habitat improvements, hatchery and harvest policy reforms and modest improvements at federal dams. The federal plan's strategy, referred to by the federal agencies as "aggressive non-breach," provides for revisiting the option of partial lower Snake River dam removal at check-points in three, five and eight years, should the other measures fail or fail to be funded.

"We've seen the 'non-breach,' now where's the 'aggressive?'" said Rob Masonis, Acting Director of American Rivers Northwest Regional Office. "Northwest citizens were promised last December that the federal government would fund and implement major new recovery measures while keeping the lower Snake River dams in place. Now, only a year later, the Administration and Congress have failed to deliver on that promise."

Salmon plan implementation delayed, recovery measure suspended

The inadequate recovery funding comes in the wake of other failures by federal officials to deliver on Columbia and Snake River salmon recovery commitments. During the spring and summer of 2001, federal dam operators consistently failed to maintain minimum levels of river flow and to spill water over dam spillways as called for in the federal plan. Both flow and spill are considered critical to the survival of young salmon migrating to the Pacific Ocean. The failure to meet flow and spill targets, combined with severe drought conditions, produced the deadliest migration for young salmon and steelhead on record.

From: American Rivers, Winter 2002

Judge's Ruling Aid To Pacific Rockfish

Environmentalists won a lawsuit to protect Pacific rockfish when a federal judge ruled in their favor. Judge James Larson of the U.S. District of California agreed with the claim by environmentalists and ordered NMFS to reassess catch limits for two badly over fished species, bocaccio and lingcod.

"This is a huge victory for Pacific rockfish and for protecting the Pacific Ocean," said Drew Caputo, a senior attorney with NRDC (Natural Resources Defenses Council), the lead plaintiff in the lawsuit. "This court decision requires the federal government to get serious about protecting them."

Judge Larson stated in his opinion that "NMFS has not observed its duty to obtain accurate bycatch data, nor bothered to explain its decision to ignore these factors and not adjust bocaccio and lingcod bycatch percentages in the face of evidence that it should. Most rockfish discarded in this manner are dead when discarded or die shortly afterward."

"Discarding fish is a wasteful practice that threatens the recovery of depleted species," said Mark Powell, Pacific fish conservation manager for The Ocean Conservancy. "The court order forces managers to count the dead fish, which is the first step in responsible management."

From: International Angler 64 (1), January-February 2002

Gov. Davis Vetoes Abandoned Oil Rigs Bill

Environmentalists supported California Gov. Gray Davis' October 13 veto of a bill that would have permitted the oil industry to leave abandoned oil rigs off California's central coast as "underwater reefs."

Current law requires oil companies to dismantle and remove obsolete offshore platforms. The bill would have allowed platforms to stay on the unproven theory that the underwater scaffoldings might constitute artificial reefs for fish. This legislation would also require the oil companies to supply an unknown amount of money, but potentially millions of dollars, into state funds in part for marine resource protection and restoration.

Despite oil industry claims that the rigs would provide new marine habitat, Davis concluded that "there is no conclusive evidence that converted platforms produce net benefits to the environment."

Warner Chabot, The Ocean Conservancy's Vice-President for Regional Operations, supported Davis' reasoning. "The environmental and economic harm of 'rigs-to-reefs' outweigh any supposed benefits," he told the *Los Angeles Times*. "In fact, the oil industry was the only clear beneficiary of this legislation."

The Ocean Conservancy was particularly concerned that the bill would foster the idea, unsupported by science, that the "reefs" would increase fish production. This would lead to further dumping of trash in the ocean on the claim that it, too, would act as "reefs."

Some controversies never die. –Ed.

From: Blueplanet, Winter 2002

Blue Crabs show slight sign of rebounding in Chesapeake

A year after reaching a landmark agreement to cut blue crab harvest pressure, scientists and watermen say they are seeing hints of a blue crab rebound in the Chesapeake Bay.

When all of the figures are in, officials and watermen alike agree that the 2001 harvest will again be well below average.

But both reported some encouraging signs at the December meeting of the Bi-State Blue Crab Advisory Committee. While catches were far below average in the spring and summer, they rebounded in the fall, with watermen reporting, in the words of one, "some of the prettiest crabs I ever saw."

At the same time, watermen reported seeing huge numbers of small crabs which – if they survive – could bode well for the population in coming years.

Further, Virginia surveys found that the number of breeding-age female crabs – one of several factors used to gauge the health of the stock – had doubled from last year's record low, although it remains well below historic levels.

Committee members took all of those signs as evidence that their actions launched last year to reduce fishing pressure on the blue crab are working.

The committee, created by the Chesapeake Bay Commission to help coordinate management of the Bay's most valuable commercial species, in December 2000 recommended that fishing pressure be reduced 15 percent over three years to help the crab population rebuild from near-historic lows. Last year, the states took the first step toward that goal, acting to reduce the fishing pressure 5 percent.

The idea behind reducing fishing pressure – basically, the amount of gear and time that can be used to catch crabs – is to allow a greater percentage of the blue crab population to survive and reproduce.

Scientists said that over time this should lead to a larger, more stable crab population which will allow watermen to catch more crabs, despite the reduced effort.

Boosted by a strong rebound in catches during the late summer and fall, the Maryland 2001 crab catch of about 20.5 million pounds slightly surpassed the 2000 catch of 20.2 million pounds, but was well below the eight-year average of 32.8 million pounds.

In the Potomac River, the hard crab harvest was about 2.4 million pounds, better than the 2.1 million pounds landed in 2000, but far below the eight-year average of 5.6 million, according to A.C. Carpenter, director of the Potomac River Fisheries Commission.

Final figures were not available for Virginia, where the crab season runs through the winter. But Jack Travelstead, fisheries director for the Virginia Marine Resources Commission, said that through September, hard crab landings were off 30 percent from 2000. Catches improved in the fall, but not enough to compensate for the bad start of the season, and he estimated the total catch would end up being down by 20 percent. It's one of the worst years in the last seven or eight for hard crab harvests," he said.

Harvests of soft and peeler crabs – which have been increasingly targeted in recent years – rose slightly in the Bay. They represent only about a tenth of the total crab harvest, although their portion has grown in recent years.

The states are now making plans to go forward with the next round of reductions. But Maryland – the first state to announce its plans for 2002 – enraged watermen when Gov. Parris Glendening announced plans to enact the next 10 percent of cuts in a single year, rather than stretching reductions over two years as originally planned. In announcing the regulations, Glendening said "acting aggressively" was warranted because research continues to show the overall population at or near record lows.

"This group has mandated 15 percent over three years, but there seems to be a breakdown in communications of whatever in Maryland," said BBCAC member John Brooks, Jr., of the J.M. Clayton Company in Cambridge, MD. "If this proposal goes through as proposed, this will be my last meeting. It will put me out of business." Other Maryland watermen echoed that sentiment.

The Virginia Marine Resources Commission and the Potomac River Fisheries Commission anticipate cutting harvest by 5 percent. The VMRC is expected to hold hearings in January, while the Potomac commission anticipates action later in the winter.

On another issue, Eric Schwaab, fisheries director for the Maryland Department of Natural Resources, released a first look at findings from a recreational crab harvest study in Maryland. He said about 9.6 million crabs were caught by recreational fishers in 2001, or 15 percent of the total

by recreational fishers in 2001, or 15 percent of the total state catch. But he called that one-year survey a "snap shot" of landings in "what is a fairly depressed stock" and that the study needs to be repeated.

Lack of information about the recreational crab catch has long been a problem for managers when setting overall harvest targets. Some people have contended that the recreational catch could equal the commercial blue crab landings.

From: Bay Journal, January-February 2002

NOAA Provides Major Help in Future Dam Removal

Dam removal continues to become an increasingly accepted process to restore riverine habitat. In 2001, 25 dams were removed across the country. The political and social battles to reach community consensus on dam removal have become less arduous than in years past, but once agreement has been reached that a dam, which no longer makes sense, needs to be removed, funding must be identified to remove that dam. This can prove extremely difficult due to a lack of designated funding sources, either within the different branches of federal and local governments or the private sector. For this reason, in March 2001, American Rivers pursued and successfully entered into a Cooperative Agreement with the National Oceanic and Atmospheric Administration (NOAA) Community-Based Restoration Program.

This Cooperative Agreement will provide more than $1 million during its first year for anadromous (migratory) fish habitat restoration through dam removal and fish passage projects throughout the Northeast and Mid-Atlantic States as well as California. The agreement has not only allowed American Rivers to increase its ability to provide technical assistance in dam removal situations, but also established a separate grant program that will leverage half a million dollars. These grants are designed to provide support for local communities that are utilizing dam removal or fish passage to restore and protect the ecological integrity of their rivers and improve freshwater habitats important to anadromous fish.

Projects must have the following five critical components to qualify for funding under the grant program:

1. Successful restoration of anadromous fish habitat, access to existing anadromous fish habitat, or natural riverine functions.
2. Proper ecological, social, economic and engineering considerations
3. Minimize any identifiable short- or long-term negative impacts to the river system as a result of the project
4. Community involvement in project decision making and may have community involvement in the implementation
5. Potential for public outreach and education

Projects that meet these five criteria will be eligible to receive up to $25,000 in a non-renewable grant to assist in the technical application of fish passage or dam removal.

American Rivers set two application deadlines to help better manage the project. The first, December 1, 2001, was set to allow for projects that will impact the upcoming spring run of anadromous fish from their homes to their spawning grounds in the freshwater estuaries of the rivers. The second deadline, April 1, 2002, will allow work to be done after the spring run but before the next season's run or, for some species, a fall run.

The coordination of this funding is an intricate process that relies on local grassroots input to assure the scientific validity of each project. During the first six months of this agreement between American Rivers and NOAA-CRP, significant effort was put into developing regional restoration steering committees in each of the three targeted areas. These regional committees are vital in selecting the projects that will be funded and in continuing to provide technical assistance to groups and government officials in those regions. The coordination of these funds has allowed the Rivers Unplugged campaign to connect with and contact grassroots groups and local governments that had previously been working independently. The projects have also allowed American Rivers to become more aware of the full extent to which dam removal is becoming an accepted practice.

The demand for these funds has been strongly reinforced by the response to availability of the grant. The program's link on the American Rivers website quickly became one of the most viewed pages, resulting in dozens of inquiries and applications.

For more information on the program, a complete application, and eligibility guidelines, please visit www.AmericanRivers.org/feature/restorationgrants.htm or email rivergrants@amrivers.org. For more information on the NOAA Community-Based Restoration Program and its partners, please visit www.nmfs.noaa.gov/habitat/restoration/community/index.html.

From: American Rivers, Winter 2002

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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, susan.huntsman@noaa.gov Subscription $30 a year to Institutions and Non-Members. Officers-Gary Sakagawa, P.O. Box 271, La Jolla, CA 92038-0271, gary.sakagawa@noaa.gov -President; Barbara Warkentine, SUNY-Maritime College, Science Dept., 6 Pennyfield Ave., Fort Schuyler, Bronx, NY 10465-4198, synodus@aol.com; Allen Shimada, NMFS, Office of Science and Technology, 1315 East West Highway, Silver Spring, MD 20910, allen.shimada@noaa.gov -Treasurer. I S S N - 8755-0075

American Institute of Fishery Research Biologists

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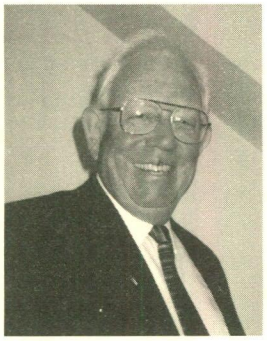
VOL. 31, NO.2 MARCH, APRIL 2002

A Tough Choice! Yours to Make!

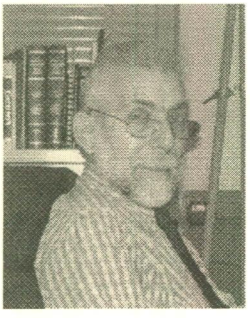
Selection of President Elect – 2002



RICHARD H. SCHAEFER

Richard (Dick) Schaefer was born in East Orange, NJ, on November 12, 1935, and was raised in Maplewood, NJ which he considers to be his hometown. After graduating from high school in 1953, Dick entered Rutgers University (RU) during the fall of that year. While there, he began a career in fisheries during his sophomore and junior years (1955-1956), conducting summer and winter (ice-fishing) creel censuses for the New Jersey Division of Fish & Game on several popular lakes around the state. During the summers of 1957 and 1958, Dick was promoted to the NJ Lake Survey Project Team, which conducted limnological/fisheries studies on those same and other lakes. After receiving a BS and MS in Fisheries Science from RU in 1957 and 1959, respectively, he took a job as a Marine Fisheries Research Biologist with the New York Conservation Department (NYCD) on Long Island. With the exception of a few years out for military service at the Radioimmunology Branch of the US Army Medical Research Laboratory at Ft. Knox, KY, Dick worked continuously for the NYCD until 1972, having advanced to the position of Director of the NY State Marine Fisheries Laboratory at that time. He left the NYCD to take a staff position at the federal level in the newly created National Oceanic and Atmospheric Administration (NOAA). Soon after, he migrated to NOAA's National Marine Fisheries Service (NMFS) and remained with that agency until his retirement from government service in April of 2002. While with NMFS, Dick held a variety of supervisory/managerial and office directorate positions, most of which involved implementation of the Magnuson/Stevens Fishery Conservation & Management Act, the Atlantic Striped Bass Conservation Act, and the Atlantic Coastal Fisheries Cooperative Management Act. In 1994, he received the prestigious David H. Hart Award from the Atlantic States Marine Fisheries Commission for outstanding contributions to the betterment of marine fisheries on the Atlantic coast. Dick says, my hobbies include fishing (primarily fly-fishing) and hunting, and a little country/bluegrass pickin' & grinnin' (I can't tell you all of the places where I've been known to make a fool out of myself!).

Dick has been a member of AIFRB for over 30 years, and a Fellow since 1978. In support of his nomination, he writes, while I know, understand, support and adhere to the founding Purposes (Article IV) of the Institute, it never ceases to amaze me, after nearly 50 years of its existence, how many professional fisheries biologists I encounter who have never even heard of the organization, let alone its purposes. Although we need to continue to look inward to the professional development and performances of our membership, I believe we also need to look outward to let others know who we are and what we stand for and, if qualified, invite and welcome them into our ranks. In other words, I believe we need to market ourselves more aggressively. For example, how many of us, I ask, in addition to citing our level of academic achievement (e.g., BS, MS, Ph.D) adjacent to our names on personal or business stationery/cards, includes Associate, Member, Fellow or Emeritus of AIFRB? Members of other professional institutes/colleges do it all the time. I believe we should all be proud that we are members of the Institute, and we should never miss an opportunity to let others know as well. If you agree with me, then we should begin to explore as many ways as possible to get our light out from under the basket and make ourselves more visible in the public eye.



JOSEPH RACHLIN

Joseph Rachlin is the Dean of the Division of Natural and Social Sciences at Lehman College of the City University of New York. Joe received the BS degree in 1957 from the City College of New York, the MS degree in 1962 and the Ph.D in 1967 from NYU. His area of specialization is in fishery science. Upon completing his doctorial work, Joe entered the world of academe as a faculty member in the Department of Biological Sciences at Lehman College and within ten years of that appointment obtained the rank of Full Professor. Joe attributes his academic success to his love of teaching, research, and diversity of his research interests which include phylogeny, cytogenetics; aquatic toxicology, fish tissue culture; life history of marine invertebrates; and recently, an evaluation of sub-fossil fish and

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invertebrates from a third millennium BC site at Ghazi Shah, Pakistan. His research interests have led to the publication of over 50 papers in peer-reviewed journals and as many abstracts. He supports his research through grants and has had well over ¾ million dollars in funds awarded to him.

In recognition of his expertise in his field, Joe has been elected a fellow of the International Academy of Fishery Scientists headquartered in Rome, Italy and is listed on the F.A.O. United Nations Register of Experts on Marine Pollution. Joe serves as a member of the editorial board of The Archives of Environmental Contamination and Toxicology, and this year Joe was elected Fellow of the Linnean Society of London.

In 1993 Joe was asked to join the College's administrative staff and to head up the Division of Natural and Social Sciences. Despite the demands that this administrative post requires, Joe continues to maintain his research program, mentoring graduate students, teaching at least one course per semester, and actively participates in professional societies – among which he is a main collaborative with the IACERE (Inter-American Comparative Ecosystem & Regional Economies) Team of the Americas Center on Science and Society which has led to extensive travels and presentations in Mexico, Chile, and now Japan.

Joe, who joined AIFRB in 1973, was elected to the rank of fellow in 1976. His involvement with AIFRB was recognized in 1997 when the Board of Control voted to award him the Institute's Distinguished Service Award. From 1986 to 1992 Joe held the position of District Director of the New York/New Jersey District and chaired the Associate Research Award Program. In 1987 Joe assumed the role of Treasurer of AIFRB, a position he held until 1999. Joe is currently the District Director of the Keystone District having been elected into that position in 1999. Joe notes, "Having served in several key positions within AIFRB and having been a member of the Board of Control since 1986, I am familiar with the Institute and can continue the programs initiated by previous Presidents and make them successful. I will work to keep the Institute strong and promote its ideals of professionalism and research."

Outside of his professional life Joe enjoys photography and traveling, particularly to Europe, with his wife and family. As a new grandfather he is taking special pleasure in enjoying his grandson of nine months.

Enclosed in this issue of Briefs is a pre-addressed postcard-ballot for President-elect of AIFRB. Ballots must be returned to the secretary by 20 June 2002.

AIFRB to Judge Student Work

The AIFRB Northern California District judged student papers and posters at the AFS Cal-Neva Chapter meeting on April 18-20, 2002. In 2001 a total of 16 people judged at least three papers each. There was a core of about 4 people who collectively judged all the student papers. This year the AFS Cal-Neva Chapter has approved $300 for awards. The District selected a winner and 1st runner-up for both student presentations and student posters. This is in the spirit of treating posters and talks equally. Approximately 30 students entered papers at this year's AFS Cal-Neva meeting.

Submitted by - Tom Keegan, District Director

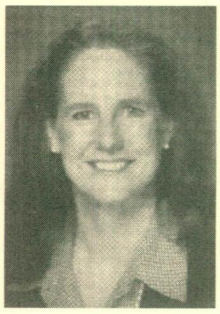
Sissenwine Honored Again

Dr. Michael Sissenwine, an AIFRB Fellow, was awarded the 2002 Dwight Webster Award of Merit from the Northeastern Division of the American Fisheries Society. The award was presented at the banquet at the Northeast Fish and Wildlife Conference, in Portland, Maine, on April 23, 2002. Dr. Sissenwine is a long-time employee of the National Marine Fisheries Service who holds a Ph.D in Oceanography from the University of Rhode Island. He currently is Director of the Northeast Fisheries Center, NMFS, at Woods Hole, MA, and recently was awarded the Department of Commerce's Silver Medal.

The Dwight Webster Award is the Northeastern Division's most prestigious award. It has been presented annually since 1978 and goes to an individual for long-term contributions to the fisheries profession, especially in the Northeast.

Contributed by - John Moring

Susan Shipman Appointed Director



The Georgia Department of Natural Resources recently announced the appointment of Susan Shipman, former AIFRB member, to succeed Duane Harris as Director of the Coastal Resources Division, effective upon the retirement of the current director on April 1, 2002. Susan has served as Chief of Marine Fisheries for the Coastal resources Division since 1984. She is the state designee to the South Atlantic Fishery Management Council and is currently serving as chair of the Atlantic States Marine Fisheries Commission. She was awarded the Captain David H. Hart Award last year for her contributions to the Commission and its 15 member states.

From: The South Atlantic Update February 2002

Ed. Susan, come back, we miss you.

Join the Board of Control and AFS

Baltimore, August 18-22, 2002

The AIRFB Board of Control will meet in Baltimore on August 17 and 18, 2002 in conjunction with the American Fisheries Society (AFS) annual program. All members are invited to attend the AIFRB Board meetings.

The 2002 AFS program symposia will be a worldwide event, offering a wealth of information on marine, estuarine, and freshwater fisheries and habitats. Over 350 abstracts have been submitted by participants from countries including the United States, Canada, Mexico, Australia, Brazil, Germany, Iran, Japan, Nepal, Nigeria, Sri Lanka, South Africa, Turkey, and Taiwan. There will be 27 symposia and individual contributed paper sessions offered within a 3-day program with 11 concurrent sessions. If your interest is in marine systems, you may want to attend the session on understanding and managing coral reef ecosystems, including mapping, monitoring, and assessment of coral reefs. Symposia on shark essential fish habitat, Pacific Ocean animal tracking, marine protected areas, ecosystem management, or cooperative data collection programs in marine commercial fisheries may also be appealing. If you're interested in estuarine ecology or management, you may prefer the sessions on the Hudson River estuary, striped bass management, bluefish, natural fish passage, Chesapeake Bay fisheries, or bays, sounds, gulfs, and lagoons. If freshwater fisheries are your preference, you won't want to miss the symposia sessions on tailwater fisheries, National Forest aquatic resource management, or bioengineering for aquaculture, habitat, and fish passage.

If you have an interest in leadership development, you won't want to miss the special symposium "Developing a Leadership Institute for AFS," which will feature presentations by recognized leaders in the natural resource field and discussion on the direction and content of the leadership development program. At least 4 poster symposia have been organized for the 2002 program. The largest symposium, "Current Research on a Living Fossil, the Horseshoe Crab (*Limulus polyphemus*)," includes 21 posters on every imaginable aspect of horseshoe crab biology and management. Other special poster symposia include "Recovery of Endangered Species: Evolutionary Trajectories and Ecological Contexts," "Fisheries of the Delaware River Basin," and "Striped Bass." These symposia, combined with the contributed posters, are likely to number in the hundreds and will be on display for the entire 3-day meeting in the trade show/poster hall.

Website: www.fisheries.org/annual2002

Nominees Sought for Southeastern Award C.W. Watson Award

Nominations are being sought for the Clarence W. Watson Award. This annual award will be presented at the Southeastern Association of Fish and Wildlife Agencies Annual Conference in Baltimore, Maryland, October 26-30, 2002.

The Clarence W. Watson Award is the most prestigious award given in the Southeast and is presented to the career individual who, in the opinion of the Award Committee, *has made the greatest contribution* to wildlife or fish conservation during the previous year or years. Consideration includes research, administration, law enforcement, I&E, wildlife management, fish management, teachers, and students. Preference is given to nominees in the Southeast. The award is a mounted bronze plaque presented jointly by the Southern Division of the American Fisheries Society, the Southeastern Section of the Wildlife Society, and the Southeastern Association of Fish and Wildlife Agencies.

Nomination should be submitted in the format shown below and should include complete information on the candidate's background; i.e., education, training, noteworthy accomplishments, and particularly, the achievement(s) for which the nomination is being made. The nomination should include, but not be limited to, a description of the accomplishment(s), application in the state and region concerned, time involved, and the amount of aid received from associates. As much information as possible should be furnished to aid the committee in making the selection. A previously unselected nominee may be resubmitted each year. Last year's recipient was John E. Frampton of South Carolina.

Selection will be based on specific accomplishment(s) and other information included in the letter of nomination. Nominations should be sent to: Bobby Grinstead, Chair; 40929 State Road 19; Umatilla, Florida 32784; phone – (352) 669-3153; email – bgrinstead@fs.fed.us as soon as possible, but not later than July 15, 2002.

Nomination Format:

I. Background Information: a.) Name; b.) Birth Date; c.) Education; d.) Employment History

II. Accomplishment(s)* and application of accomplishment(s) upon which the Award should be made: a.) Problem or opportunity with which nominee was involved; b.) Action nominee took to solve problem or capitalize on opportunity; c.) Results (accomplishments) of nominee's actions.

*The C.W. Watson Award may be given for accomplishing a single item or a series of different non-related items. But the award is given to a nominee who has contributed the most to any of the appropriate areas of fish and wildlife conservation. Emphasis is on contribution, not tenure. Those making nominations are requested to insure that they explain clearly what was accomplished and how it contributed.

Two Titles of Interest

Fishery Science: The Unique Contributions of Early Life Stages

Edited by Lee A. Fuiman and Robert G. Werner, AIFRB Fellow

Publication Date: September 2002

336pp., 6 ¾ x 9 ¾, paperback, ISBN 0-632-05661-4, Price $49.99

A complete understanding of the research on the early life history of fishes is essential to advanced students of fish biology, fisheries, and aquaculture. *Fishery Science* compiles and organizes a wealth of information in this subject area. Each chapter of the book covers a topic traditionally taught in fisheries science courses from the point of view of the importance of early life stages. The user-friendly, clear writing style of this well-illustrated book allows for easy absorption of the contents, which include: Population analysis, Habitat requirements, Fishery management, Human impact, Case studies, and other relevant topics. The experienced editors and contributors facilitate in-depth study of this core area, providing a text that will be particularly useful to upper level students of fishery science and aquaculture.

About the Editors: Lee A. Fuiman, Ph.D., Professor and Senior Research Scientist, Section of Integrative Biology, University of Texas, Austin, Department of Marine Science at the Marine Science Institute in Port Arkansas. Fuiman's research is directed toward understanding how processes affecting larval fishes have serious consequences for populations of adults and includes both laboratory and field experiments on the behavioral and sensory capabilities of fish larvae. **Robert G. Werner**, Professor Emeritus of Environmental and Forest Biology, College of Environmental Science & Forestry, State University of New York, Syracuse. Werner's research focuses on the ecology of fishes, particularly during their early life history.

Arctic Charr Aquaculture

By Gavin Johnston

Publication Date: October 2002

304pp., 6 ¾ x 9 ¾, hardcover, ISBN 0-85238-272-3, Price $92.99

(Although not by an AIFRB member, this book may foretell interesting times. See Schuck later in this issue. Ed.)

Commercial production of Arctic charr is on the verge of a surge similar to that of Atlantic Salmon 15 years ago – experts estimate that the market can support 10-15 times as much Arctic charr as is currently being produced. Culture techniques for Arctic charr, however, are different than the techniques used for salmon or trout. This Fishing News Book provides the practical and theoretical information needed to successfully culture Arctic charr.

Arctic Charr Aquaculture opens with an overview of the subject, including: History and development of charr aquaculture; Biological attributes of Arctic charr; Physical requirements for growth and commercial production requirements; Charr health, nutrition and feeding. The second section serves as a practical guide for the producer operating an Arctic charr farm, either as a vertically integrated operation or as discrete hatcheries and grow-out farms. The remainder of the book is devoted to the business of commercially producing Arctic charr and, although it deals specifically with charr, it also covers many business aspects of farming relevant to any fish species under cold-water cultivation. Coverage includes farm business management, the economics and finance of Arctic charr farming, marketing charr products, and a closing section on how to avoid the pitfalls that others (including the author) have experienced.

Arctic Charr Aquaculture will give fish farm managers, fish biologists, and freshwater biologists the knowledge needed to farm and market Arctic charr.

About the Author: Gavin Johnston, Northern Biomes Ltd., British Columbia, Canada.

Both Books: examination copies available to U.S. instructors. Complimentary copies available for reviewers.

Both Available from: Iowa State Press, 2121 State Avenue, Ames, IA 50014-8300; Office: 515-292-0140, Fax: 515-292-3348, Orders: 800-862-6657, www.iowastatepress.com.

Prince Hobnobs with Royalty of Recreational Fishing

AFTCO Tag/Flag/ award winners show off their trophies at the IGFA International Auction & Banquet. Sponsors included Bill Shedd, president of AFTCO (third from right) and Mike Leech, president of IGFA (second from left). Dr. Eric Prince, AIFRB Fellow, far right, directs the Atlantic billfish tagging program for the National Marine Fisheries Service.

From: International Angler 64(2), March-April, 2002

European-Cyprinid Relationship Remains Intimate (Kinky?)

Jean-Francois Helias set an all-tackle record with this 99 lb 3 oz Siamese giant carp caught last November in Bung Sam Lan Lake, Thailand. He was bottom fishing with bread for bait.

From: International Angler 64(2), March-April, 2002

Big Funds Fuel Sea Lion Studies

Endangered: Scientist use $80 million in federal money to probe population crash

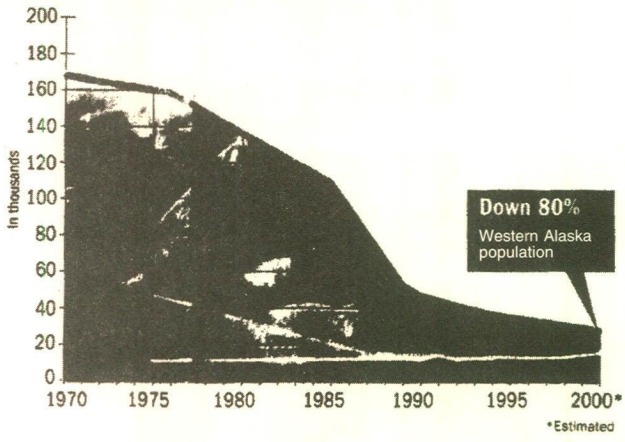
By: Doug O'Hara
Anchorage Daily News

When endangered Steller sea lions flop from the sea to rest on rocks in Resurrection Bay, scientists will watch by remote video. Divers have been lassoing juvenile sea lions with nooses. Field teams have been scrambling over slippery rocks to scoop up gobs of pinniped poop. Seward lab technicians are feeding captive sea lions special diets. In what may be the most intense, well-funded investigation ever undertaken into a single species, an armada of biologists over this year launched more than 150 studies to find out why the Stellar sea lion population crashed and what keeps the animals from bouncing back.

Over the past four decades, the population plunged more than 80 percent across the Gulf of Alaska and out the Aleutian Chain, from almost 180,000 animals in the late 1960s to fewer than 30,000. The official listing of this western stock as endangered has threatened Alaska's $1 billion ground-fishing industry. That conflict, as much as the biological implications of a species sliding toward extinction has spurred Congress to act. Last month, Congress appropriated $40 million for Steller studies in 2002, boosting federal funding to more than $80 million in just two years. The flood of money has generated laboratory experiments and research cruises and field studies by hundreds of scientists spread among 25 government agencies, academic institutions and groups.

Across a 2,000 mile arc of ocean, the marine ecosystem will be inspected and gauged with a focus rarely seen. "I don't think there's anything really to compare it to," said Bob Small, director of the state's marine mammal program and head of the 20-member recovery team formed under the federal Endangered Species Act. "As for putting money toward a specific species and its specific interactions, It's pretty unprecedented." "Maybe the best indication is how quickly this has ramped up," added sea lion research coordinator Lowell

Estimated North Pacific population Steller sea lions



Frits, a veteran fisheries biologist who was assigned by the National Marine Fisheries Service to oversee funding and keep track of the projects. "In 2000, we were looking at just under $5 million in funding for Stellers." The sheer amount of money has astonished some scientists.

During the early November meeting of the federal Marine Mammal Commission in Anchorage, chairman John Reynolds, a manatee specialist from Florida, used terms like "staggering" and "breathtaking" to describe the 2001 funding level of $43 million. That appropriation had been pushed by Alaska Sen. Ted Stevens. "It's probably equal to all the U.S. funding spent on all the other species combined," Reynolds said at the time.

Within a few weeks, Stevens had secured an additional $40 million for sea lion research through a spending bill for the Commerce, Justice and State departments. Stevens has made clear his hope that better knowledge of sea lions will help keep the valuable commercial fishery alive. "Last year's research funds are already paying dividends, and new research continues to disprove the link between fishing and the decline in sea lion populations," he said in a written statement. But several biologists say the research so far hasn't proved much except that sea lion biology is extremely complex. The things that affect sea lion survival – ocean conditions, food supply, predators – have changed over the decades, so the causes and effects are tangled up like an old fishing line snarled in the surf. "It's an unprecedented enigma," marine mammal biologist Lloyd Lowry told the Marine Mammal Commission in November. "Steller sea lion assessment is particularly problematic because there is no smoking gun."

The scope of the new research is daunting. At least 115 principal investigators have recruited 300 to 400 helpers to test six general hypotheses – competition with commercial fishing, environmental change in the ocean, predation by killer whales and sharks, diseases, contaminants and mortality caused by people. The new studies will build on previous sea lion research – 271 published papers and other reports, according to a recent bibliography – and take years to sort out, Fritz said. A database will soon go on the Internet to help nonscientists keep track. Some of the most intriguing studies will look at the role played by small, silvery forage fish like capelin, eulachon and sand lance, Fritz said. "They're kind of the grass of the sea," he said. "We're finding that they're a very important component of the food web, not only for fish that we like to eat, like halibut and pollock and cod, but they're also an important part of the diet for sea lions."

One of the most explosive issues has centered on how commercial fishing affects sea lion health. Among dozens of studies, one ambitious experiment off the east coast of Kodiak Island will control the level of commercial fishing in certain areas – and then measure what happens to sea lions in the vicinity over time Small said. "It's the type of work that hasn't been done before because it's extremely expensive and difficult to do on the scale that we need," he said.

Don't expect a simple answer, Small said. "People need to recognize that it's a very complex system, and it's not one or the other."

From: Anchorage Daily News, December 26, 2001

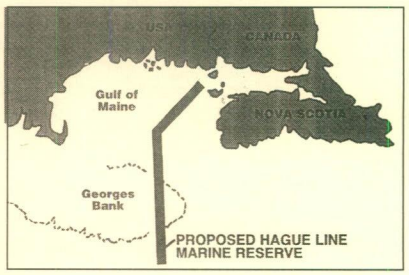
Thanks to Bernie Skud for this contribution.

A Funny Thing Happened on the Way to a Maine Vacation

By Howard Schuck

(Ed. Or with apologies to Thomas Wolfe – you can go home again, but might not want to!)

Last summer we had planned to visit the Maine coast in order to escape Arizona heat; and to see what salt water looked like after 6 years in the desert. I had no thought about fish – having left fisheries research in 1952, nearly 50 years ago; believing at the time the North Atlantic fisheries had been left in good hands. Thus, I came to Maine in tranquility, and at peace with the world, with cool ocean breezes, sights of windjammers, coastlines and lobster/clam bakes as my only goal. But soon after arriving, my serenity is interrupted by wife, a newspaper reader. She announces, "Here's an article in the 'Maine Times' about Georges Bank. I look and can't believe my eyes. Sometime recently Canada and the United States have apparently settled the long dispute as to which areas of the NW Atlantic each nation will have jurisdiction of. But, "Holy Mackerel!" – the accompanying map (fig.1) clearly shows the dividing line, termed the Hague Line, to cut straight across the entity of Georges Bank! I explode with, "What kind of person would ever divide the responsibility for management of



the discrete Georges Bank haddock population (and other species) between two nations (that have not always fully cooperated)? How could any American agree to a division of the ocean that all but dooms any hope that may remain for managing the extremely valuable Georges Bank haddock resource?" By the time we get really "Down East", and then venture into maritime Canada, I remember early visits, as Chief Haddock Investigator for the United States, to Canada's Atlantic Biological Station at St. Andrews (at the time ICNAF, International Convention for Northwest Atlantic Fisheries, was first functioning). Perhaps present scientists can explain this monstrous inter-nation agreement.

Canadian scientists deny any collusion with locating the Line, "The decision was arrived at not from science (or ease of managing discrete stocks), but was a 'political decision'". I point out that even before the formal U.S. Haddock Investigation began in 1930, Canadian and U.S. fishery biologists concurred that the haddock populations on the Nova Scotian Banks were different from the population on the Georges Bank. And a 1947 review of the knowledge of haddock, summarizing all tagging, larvae-drift and growth studies, concluded that haddock of Georges, Nova Scotia and Newfoundland were each different and independent populations. As further verification, a special cruise of R/V *Albatross III* in 1949 found haddock of the most southerly of the Nova Scotian Banks (Brown's Bank) to be distinctly different as to growth rate from Georges haddock just a short distance away across the deep Fundian Channel. This deep channel was very early recognized as the natural dividing line between the Nova Scotian and the New England (Georges Bank) population not only by scientists, but by the industry, which found the channel barren of groundfish, and did not fish there.

These facts convinced also the organizations responsible for identifying and allocating catches to standard, recognizable areas of oceans:

a. By 1936, the North American Council on Fishery Investigations had established that the separation between Georges Bank (Region XXII) and the Nova Scotia Banks (Region XXI) to be the Fundian Channel.

b. Then by 1943, these Regions had been subdivided into Subareas. The Fundian Channel was kept as the dividing line for statistical reporting, and for study of the different stocks of haddock (and other species) between Georges Bank and the Nova Scotian Banks.

c. Then ICNAF, as one of its first actions, renamed Region XXII as Area 5 – but again kept its northern boundary as the Fundian Channel.

These International, long-utilized, logical and useful (for assigning catches and for study of discrete stocks) delineations are destroyed (for Georges Bank) by the Hague Line. The integrity, perhaps even the existence of Subareas J and M of Georges Bank, is destroyed – and most of it is given to Canadian control. Continuity of reporting catches throughout the decades of biostatistics record-keeping is destroyed. There is probably no feasible way (even with computers) to divide the catches (which go back at least 1930 for J and M) into the amounts taken from the new Canadian and U.S. controlled areas.

And to management, Canadians are already trying to manage their new-found part of the traditionally U.S.-managed Georges Bank. But with different types of regulations than apply in the U.S. part. This managed split-responsibility seems unworkable for yet another disturbing fact of life – the Georges Bank stock is not stationary and during certain seasons of the year is concentrated in areas under U.S. control – but in other months in areas now under the jurisdiction by Canada. Combine that with different regulations being imposed by the two nations in their areas – and a totally chaotic situation for the fishermen of the two nations is evident.

My final St. Andrews expressions of disbelief that anyone would establish the dividing line at such a place – were that if a Political Decision, Canadian negotiators completely outmaneuvered their American counterparts out of authority to control one of the most valuable pieces of ocean property in the world. This decision would seem to render it virtually impossible for proper management of the haddock (and perhaps other species) of Georges Bank to be achieved.

While still being allowed into the Biological Station, I turn to a less ludicrous situation. I ask to see the methods being used for "assessment" of the haddock stock that resides in the Canadian part of Georges Bank.

I find myself incapable of comprehending what commodities it is these "assessments" are measuring. And I cannot understand the mass of math formulae, or symbols. I find this ironic – as at one time (admittedly long ago), I had been considered a biometrician – and had been given the task of determining the size of the population. And that we had accomplished this – and with enough accuracy (see Biometrics Society 1949) to have the courage to publically predict what the size of population would be in the next year (and what catch would result from this stock size). These predictions proved to have been accurate to 97% in 1951 and 98% in 1952. I ask why such a proven accurate method for assessing size of the Haddock population was discarded? With no good answer, this issue remains a great mystery to this day. Instead, we seem to be relying on something

new, something different, but something unspecified and unintelligible. We have a mass of mathetical calculations, symbols and formulae as indicators; but seemingly they have never been shown to represent size of the population. Essentially a complex mathematical model that has never been validated.

Having caused enough trouble at the St. Andrews Atlantic Biological Station, we check out of the Algonquin Hotel, and start our return along the Maine coast. But wife again sees something fishy in a newspaper. The Bangor Daily News of August 4th reports that one project of the Atlantic Salmon Restoration Program is to construct a weir across the mouth of the Machias River – to prevent Atlantic Salmon from ascending the river to spawn!

I am stunned. It is so astounding; it forces another interruption of serenity, and to stop at the USFWS National Salmon Hatchery at Craig Brook in hopes of an explanation. The seeming absurdity is explained this way – "It is 'Aquaculture' salmon that are to be prevented from spawning." "Why?" Answer – 1. Aquaculture salmon are domesticated salmon, and 2. USFWS does not want them to spawn – and produce another generation of domesticated salmon in the river – or to interbreed with the few wild salmon that may still exist.

I ask, "Who are these undesirables? Where do they come from?" The answer, "They are escapee from the hundreds of aquaculture pens along the coast of Maine and maritime Canada. They escape due to their instincts to swim to mid-ocean to mature, or upstream to spawn. Also by seals chewing the netting of the pens for a meal of salmon. I ask if it had not in advance been known that keeping salmonoids under hatchery (or aquaculture) conditions – generation after generation – produces a domesticated race and one that possesses characteristics different from "wild fish"? Specifically, a greatly lowered ability to survive when planted in the wild and forced to contend with the rigours of predation, natural diseases, having to find their own food and (in streams) having to fight the currents? I get no real response, so I "drop the other shoe" and bluntly point out it had been already demonstrated that these effects were occurring (after generations of hatchery domestication) to the brown trout of America. And that I find it ironic to have to say that it was I who produced this documentation. And that it was even published in by this very USFWS – (in its own Progressive Fish Culturist). I get the feeling that Craig Brook personnel may not be aware of the existence of this important exposé, "The impacts of domestication upon brown trout may apply also to the other species that spend time facing the rigors of stream life before going to the sea, particularly perhaps Atlantic Salmon". Seemingly someone responsible for Atlantic salmon well-being must have been aware of the risks, penalties or consequences of hatchery domestication of their precious wild salmon. And the potential similar impacts of domestication in the new aquaculture operations. So I ask, "Who could have aided this huge aquaculture domestication industry to get started by supplying the eggs or fry?" The answer, "We did."

It would appear that a potentially disastrous action, perhaps well-intentioned at the time, has come around to "bite" the Atlantic salmon managers in the rear. Due to their own hatchery domestication operations, and the new aquaculture domestication, wild Atlantic salmon may well be doomed.

Having caused enough trouble for the USFWS salmon authorities, I depart Craig Brook and try to resume my peaceful pilgrimage along the wonderful Maine coast. But as we backtrack, we pass through Machias. At the falls of the river we see a plaque erected by Washington County Promotions Board, "wild Atlantic salmon, once common in most New England Rivers, are now found in only a few Maine rivers, including the Machias." "Fewer and fewer wild salmon have returned to Maine rivers during the past several decades. No one knows for sure why populations have declined. Alteration of the river beds, human activities along the rivers and at sea, natural predators, and environmental conditions could all be factors. The federal and state governments are working with the public to invest in salmon hatcheries, water quality improvement, and land management plans to ensure that wild salmon continue to return to their native rivers.

Ye gads, I think – What a cop-out of a statement! – "No one knows for sure. This is like a spokesman for the Tobacco Promotions Board saying – No one knows for sure whether smoking causes cancer." I conclude, "What a pitiful official position. And somehow it is not terribly reassuring to be told that "fed." and state govts. are working on the problem."

We continue southward trying to resume a normal tourist visit. But wife spots another newspaper article. In headlines on the front page – "FISH STOCK ASSESSMENTS CHALLENGED." Oh my gosh – Heresy. I see that an Anne Porter of the Ellsworth American is reporting widespread disarray between the fishery managers, the fishery scientists and the fishing industry of the North Atlantic. The fishermen are now violently rebelling against the flood of regulations, and attacking their inventors (the managers). But they are also, perhaps for the first time, seriously doubting and criticizing the input testimonies of the fishery scientists. This discrediting of the scientists, who are supposed to furnish valid justification of the management regulations, is, to me, disturbing.

Some of the complaints: 1. "...few disagree that the rules to protect fish stocks should be based on science,

not politics. But the methods used by federal fisheries scientists have increasingly come under fire from other scientists, as well as from state regulators and fishermen;" 2. Stock assessments are the basic engine that drives fishery management; 3. These stock assessments are based on mathematical models; 4. But Bob Bayer, Director of University of Maine's Lobster Institute, questions the accuracy of the assumptions the models are based on, noting that many models have a poor track record. He points out that federal scientists have predicted the imminent crash of the lobster industry regularly since the 1970s; 5. "...Maine Department of Marine Resources" biologist, Ted Creaser, worries that most of the data his department collects appear only as agency reports, not as articles in scientific journals, - accessible to other researchers; 6. University of Maine lobster biologist, Steneck, said that non-peer as well as peer reviewed works are also necessary for timely actions by the managers, (the federal New England Fishery Management Council and the interstate Atlantic States Marine Fisheries Commission), but he worries that the managers do not understand the difference between the two. "As much as we can, we should be dealing with information that's been peer reviewed;" 7. University of Maine Professor Jim Wilson, "I've come to the conclusion that letting the agencies managing the resource also do the research is a big mistake. For 30 years NMFS has consistently told fishermen the lobster industry is about to collapse, and it has consistently grown larger and larger. It makes the science look ridiculous, it makes the agency look ridiculous; but they can't back-off because it has been the policy for so long."

"My gosh," I say, I'm not alone, naive or totally 'out of the big picture' in being aghast at the inability of current analysts to describe (explain) the current theory and data used in their 'assessments' – of population size (for Georges Bank for instance). By 1950 we had done this, and all the way back to 1931 (when the U.S. Haddock Investigation was initiated). We exposed this "model" to peer review in scientific journals, including the mathematically-oriented biometrics society of America and; to non-peer (industry) review.

I obtain the other 3 parts of Ann Porter's 4-part series, noting they cover management rather than the fishery scientists. Quotes: 1. "Few disagree that cutbacks are needed in many fisheries. Stocks of groundfish, scallops, shrimp, and many others have been depleted by years of overfishing;" 2. "The fact that many important decisions are being made by non-fishermen is a problem;" 3. Headlines, front page – "FISHERMEN CLAIM FEDERAL BUREAUCRACY IS TOO BIG, REMOTE; SHUTS THEM OUT;" 4. "I would prefer the National Marine Fisheries Service have nothing to do with our business" – lobsterman John Carter; 5. "There is an impenetrable bureaucracy", said State Senator Jill Goldthwait, "If you want to talk to someone at NMFS, you never talk to the same person twice;" 6. "The New England Fishery Management Council, NMFS's regional rule making body, covers waters from Maine to Connecticut. "If I want to get involved with the process", said lobster dealer Dana Rice, " I've got to rush up and get two minutes to give my opinion...how can I make my case on something as complicated as herring or lobster, with one statement and questions?"; 7. "The real sad thing", said Dana Rice, "is that all these regulations – for 20 years – haven't really done a whole lot for the resource;" 8. State Senator Jill Goldthwait, who chairs the Legislature's Marine Resources Committee, and serves on the Atlantic States Marine Fisheries Commission, agrees, "With the possible exception of striped bass, it's hard to point to an example where....we made the fishery better by management;" 9. "Georges Bank Haddock stock has sunk dismally over the 30 years it has been managed by the New England fishery Management Commission;" 10. "Efforts to save the groundfish stocks have shifted to shrimp, scallops and most recently dogfish. All are now also depleted;" 11. "For 20 years we had the latitude to make accommodations...and lessen impact upon the industry", said New England Fishery Management Council Chair Tom Hill, "and we used it and we used it and we failed." Rice sees this (failure) to be the result of an adversarial approach to fisheries management. "If there had been dialogue rather than swearing at each other, I think the resource would have been better off;" 12. This seems to strengthen the case for fishermen to have more influence in the management process. Peter Shelly, a senior attorney for the Conservation Law Foundation, who has spent much of his career fighting for the preservation of fish stocks, agrees, "They can't do much worse than the Federal government and the New England Council have on their own."

At the end of our six-weeks vacation, I try to comprehend which of my (unexpected) impressions are of significance (at least to me personally). I find I am somewhat heartened, in a strange way, to learn that others are also doubting the present methods of assessing the size of the fish stocks. And that even present scientists are mystified, and unable to understand what is being touted as valid measures of fish stock size – including "my" Georges Bank haddock population. And I am astounded at the disarray of the fisheries of the North Atlantic. And of the outspoken disrespect of fishery scientists, as well as the regulatory agencies charged with managing the fishery resources in the best interest of the nations and their peoples, including the fishermen. I am surprised that collaboration between the key elements: scientists, managers and the using public (fishing industry)

has declined to seeming disarray; and that the system of managing these valuable resources seems dysfunctional.

Now a "has-been", I can have no (and desire no) direct impact upon this tragic quagmire. I am restricted perhaps to merely recording my impressions of the changes, which have (and which have not) occurred in my absence of 50 years. But perhaps the luxury of being able to look back so far can be of value in comprehending the significance of present year's data and situations. Perhaps such history or "hind-sight" may be some benefit to those who may wish to try to "come to grips" with this situation.

Next summer we may visit the Pacific Northwest coast. But wife will not read the local newspapers.

Howard Schuck's Fishery Résumé: Chief, Trout Investigator, N.Y. State, 1940-1944; Chief, U.S. Haddock Investigation, 1948-1952; Scientific Advisor to International Convention for Northwest Atlantic Fisheries, 1950-1952; Scientific Advisor to Atlantic States Marine Fisheries Commission, 1948-1952; Co-Originator of U.S. Atlantic Bluefin Tuna Investigation, 1949.

(Ed. Note: If you hear that Howard is to vacation in your neighborhood, you might want to be out of the office that day)

Coho Delisting Overturned

In September 2001, a federal judge stripped Oregon coastal coho salmon of legal protections afforded them under the Endangered Species Act because of discrepancies between how hatchery and wild fish were treated. In spite of the dire condition of wild stocks of these coho, the federal agency responsible for salmon survival, the National Marine Fisheries Service, refused to appeal this ruling. The delisting decision also gave the green light to timber sales in Oregon that had been stopped to protect coho.

Seeing a crack in federal salmon protection, anti-salmon forces, made up mostly of agriculture and real estate development interests, filed copycat petitions with NMFS to strip protection from almost all the other protected west coast salmon stocks. Earthjustice stepped into the breach to restore protections for the coho and fight off the other challenges. Seattle Earthjustice attorneys Patti Goldman and Kristen Boyles appealed the coho delisting decision to the Ninth Circuit Court of Appeals and in December won a stay of the earlier delisting decision – reinstating protection for the fish while the case is going forward. Logging in coho habitats that had resumed was suspended by the court of appeals action, except for one timber company that continued to log one of the affected timber sales until an additional federal temporary restraining order was obtained. Meanwhile NMFS has announced it will undertake a review of its hatchery policy in 2002 in an effort to sort out the situation. Among the groups Earthjustice is representing are Oregon Natural Resources Council, Pacific Rivers Council, Pacific Coast Federation of Fisherman's Associations, Institute for Fisheries Resources, Coast Range Association, Siskiyou Regional Education Project, Audubon Society of Portland, and Sierra Club.

From: In Brief, Winter 2002

Klamath Basin Calmities

Threatened fish – the shortnose sucker, Lost River sucker and coho salmon – in the Upper Klamath Lake and the Klamath River were dealt a blow in February. An interim report by the National Academy of Sciences suggested that, in the face of regional drought, the Fish and Wildlife Service and National Marine Fisheries Service had "no substantial scientific foundation" to withhold water from farmers in order to provide the fish more water. A full report is due in 18 months.

From: The Planet, March 2002

Trawlers, Technology Killing Deep-Sea Life

Fishing vessels that trawl thousands of feet below the surface may be wiping out the exotic creatures of the ocean depths faster than scientists can discover them, researchers warned. In recent years, sturdier winches, stronger cable, and more powerful engines have allowed fishing trawlers to extend their reach to depths of 3,000 feet and beyond, biologist Callum Roberts claimed at the annual meeting of the American Association for the Advancement of Science in Boston. At those depths, growth is so slow that harvested fish take decades to be replaced, and damaged coral may require centuries or more to grow back, he said.

In a study published in the journal *Trends in Ecology & Evolution*; Roberts compared the current situation to last century's clear-cutting of ancient redwood forests in the western United States. In the Pacific off New Zealand, trawling has cut orange roughy populations to one-fifth of their original levels. Because those fish live to be 150 years old and do not reproduce until they are in their 20s, they could take decades to recover. Sea-bottom coral, sponges and seafans also suffer greatly when trawls scrape the ocean bottom.

From: International Angler 64(2), March-April, 2002

Recent Research Finds Disturbing Evidence in Oculina Bank Area

The shelf-edge Oculina coral reef ecosystem, located off the central East Coast of Florida, is unique among coral reefs and exists nowhere else on earth. The area is called the Oculina Banks because of the coral, *Oculina varicosa* (ivory tree coral), that grows primarily on the ancient limestone ridges and pinnacles distributed throughout the area. The Banks extend about 90 nautical miles (nm) along the shelf edge from Ft. Pierce, to Daytona Beach, Florida ranging from 15 to 30 miles offshore. The delicately branched coral attains heights from 1 to 16 feet, stretching to form thicket-like habitats that support a very rich and diverse marine community. The reefs and pinnacles of the Oculina Bank have been known as fertile spawning grounds since the late 1970's and early 1980's when scientists working in manned submersibles observed gag and scamp grouper in large spawning groups.

The uniqueness, productivity and vulnerability of the *Oculina* habitat moved the Council in 1984 to declare a significant portion (92 square nm) a Habitat Area of Particular Concern (HAPC). As an HAPC, fishing practices involving bottom trawling, dredging, traps and bottom long lines were prohibited in the area. In 1994, the Council closed the original HAPC for a period of 10 years to bottom fishing. This Experimental Oculina Research Reserve (EORR) would provide researchers with an area in the South Atlantic region to study the effects of prohibiting fishing for snapper grouper species and the characteristics of an unfished resource area protected from habitat damage. Further expansion of the HAPC was made in 2000 and now encompasses 300 square nm.

Dr. Chris Koenig, a research biologist with the Department of Biological Sciences at Florida State University, has been actively involved with research in the Oculina Bank. During the December Council meeting, Dr. Koenig reported his recent findings as part of a research team working with NOAA's "Islands in the Stream Expedition". In early September of 2001, eight days of the Expedition were devoted to submersible studies of the Oculina Bank area. Dr. Koenig gave an overview of the research efforts and preliminary findings. He explained that an earlier submersible survey conducted in 1995 suggested that much of the EORR habitat, the economically important fish populations and the grouper spawning aggregations described in the 1970's and '80's were decimated by 1995. Preliminary findings from the September 2001 surveys found that most, an estimated 90%, of the Oculina habitat within the EORR has now been reduced to rubble. Damage north of the area may be even greater. Included in Dr. Koenig's report is the alarming estimate that only 20 acres of fully intact Oculina thicket habitat remain in the entire HAPC and probably in the world.

While other factors may play a role in the decimation of Oculina coral, Dr. Koenig believes that illegal trawling may be a key factor. "I think the evidence is very strong, if not overwhelming, that trawling is continuing in that area", stated Koenig as he referenced photos showing evidence of trawling alleys. He also described damage to several experimental areas where scientists are conducting restoration studies to evaluate the potential for transplanting the coral. Dr. Koenig emphasized the need for better enforcement, including the use of Vessel Monitoring Systems (VMS) for commercial trawlers. "No where else is the habitat as unique as this deep water Oculina habitat. Nowhere else in the world is it known. You've got 20 acres of it left. A trawler in one night could annihilate all of it...something needs to be done and it needs to be done soon," stressed Koenig.

From: The South Atlantic Update, February 2002

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American Institute of Fishery Research Biologists

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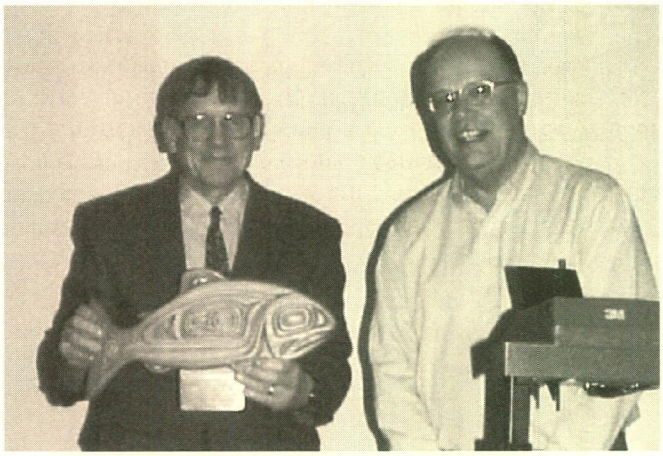
Utter Receives Outstanding Achievement Award

AIFRB's highest award, the Outstanding Achievement Award, for 2002, was presented to Dr. Fred Utter of the University of Washington and NMFS-Seattle for his pioneering, outstanding and trend setting work in biochemical genetics. Utter's research formed the basis for much of the current thinking on genetic diversity in fish populations and provides guidance for identifying and conserving salmon populations. Director Bruce Miller presented the award (photo), fittingly a carved wooden plaque of a salmon with an engraved brass plate recognizing Fred's achievement. Afterwards, during fortune cookie and tea time, Fred gave a wonderful retrospective look and illustrated talk of how he got where he is, which he titled "Some Remarkable Byproducts of an Unplanned Career: The Contagious Power of Cooperative Interaction."

The presentation occurred at the 2002 NW Washington District Dinner Meeting, Seattle, February 19, 2002.



Dr. Fred Utter (left) receives salmon plaque symbolizing the Outstanding Achievement Award from Director Bruce Miller at the Northwest Washington District meeting February 19, 2002.

Terwilliger Honored for Student Paper

Mark Terwilliger, recipient of the W.F. Thompson Award for 2002.

The W.F. Thompson Award for 2002 recognizing student research and writing was presented (in absentia) to Mark Terwilliger, currently at Oregon State University. The award ceremony was part of the Washington Northwest District meeting, February 19, 2002.

The Thompson Award included a certificate, a free year of membership in AIFRB, and a $1,000 check. Terwilliger's paper, "Age, growth, longevity, and mortality of blackcheek tonguefish, *Symphurus plagiusa* (Cynoglossidae: Pleuronectiformes), in Chesapeake Bay, Virginia", was published in 1999 in Fish. Bull. 97:340-361. Unfortunately, Mark, who indicated he was very much looking forward to attending the dinner in Seattle, was ill and unable to attend. However, Director Bruce Miller mailed the certificate and check, and received gracious acknowledgement from Mark.

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

Mark Terwilliger: Some Background

By Thomas Munroe

Mark came to VIMS from Millersville State University, Pennsylvania, where he had limited exposure to the marine environment primarily through course work offered at the College. As a graduate student, he wanted to conduct a field-oriented research on fishes. Through course work and thesis research activities at VIMS, Mark quickly learned about field techniques for collecting fishes, the vicissitudes of working in the marine environment, learned techniques for preparing otoliths and scales for aging fishes, learned histoligical techniques for maturity staging of gonads of fishes, learned data interpretation and statistical applications for data analysis, and learned how to prepare and write results for scientific publication.

I first met Mark when he was a new graduate student at the Virginia Institute of Marine Science. Over beer and pizza, we talked about his research interests and career plans. He told me of his interest in becoming a fisheries biologist and his desire to study some aspect of fishery biology on a fish species occurring in Chesapeake Bay. I recommended that he examine the age-growth and life history of blackcheek tonguefish. I recommended this project for several reasons. First, Mark's graduate assistantship was funded through the juvenile finfish trawl survey conducted by VIMS, where blackcheek tonguefish were the sixth most abundant fish and second most abundant flatfish taken in the trawl survey. Secondly, the life history characteristics of this flatfish (and most of the other 70+ species of the genus Symphurus) were virtually unknown. This project afforded Mark the opportunity to work on a commonly collected flatfish species that had not been studied before.

I felt that Mark's work should be considered for the Thompson award because it represented an important contribution to our comparative knowledge concerning life history characteristics of small-sized flatfishes, it was an original contribution towards understanding the age structure of the population of blackcheek tonguefish residing in the Chesapeake Bay area, which is the population at the northern extreme of the species range, and it presented quality information of the age-growth of a cynoglossid flatfish. In fact, his was the first study to quantify age-growth of a member of the genus Symphurus, and one of only a handful of studies conducted to date on the 140+ members of this family (Cynoglossidae) worldwide. Finally, Mark's study contributed important comparative information of age-growth and population structure of flatfishes living in temperate zone estuaries.

Dr. Thomas A. Munroe, National Systematics Laboratory

Kasahara Generosity Recognized

An award was presented by Vice-Director Kate Myers at the Washington Northwest District meeting in Seattle, February 19, 2002 to Dr. Hiroshi and Mrs. Toshiko Kasahara of Seattle for their generous initial support of the new AIFRB Founders Fund The award was received by Mrs. Kasahara and consisted of both a wonderful vintage photo of Dr. and Mrs. Kasahara, and also a beautiful wooden, carved dish from Fiji; both gifts were obtained by AIFRB President Gary Sakagawa.

Vice-District (Washington-NW) Director Kate Myers (left) recognizes gift to AIFRB Founders Fund by Kasahara family of Seattle, Mrs. Toshiko Kasahara (right) received token gifts from the AIFRB.

Atlantic States Marine Fishery Commission Recognizes Vaughan

Douglas Vaughan recipient of ASMFC Award of Excellence for 2002.

AIFRB Fellow and former Carolina District Director Douglas S. Vaughan received the 2002 Award of Excellence for Scientific, Technical, and Advisory contributions in support of inter-jurisdictional fisheries management from the Atlantic States Marine Fisheries Commission. Doug's award recognized his participation and contributions, which were instrumental to the success of species technical committees and special projects over almost two decades. He is especially known for directing and expanding stock assessments of Atlantic menhaden and pioneering efforts in stock assessments of weakfish and red drum. Doug's contributions have significantly improved the scientific quality of Atlantic States Marine Fisheries Commission's services in resource assessment and management under the Atlantic Coastal Act.

John Moring Passes Unexpectedly

John Richard Moring, Ph.D., 56, died unexpectedly on May 9, 2002 in Portland, Maine. He was born in San Diego, California, February 4, 1946, the son of Walter Forman and Lois Griffin Moring. John graduated from Point Loma High School in San Diego, and then received Bachelors of Science degrees in Oceanography in 1968 and Fisheries in 1969, from Humboldt State University in 1970, and a Ph.D. in Fisheries from the University of Washington in 1973. Prior to moving to Maine, John worked for the Oregon Department of Fish and Game. Since 1979, he has been employed as the Assistant Leader of the Cooperative Fisheries Research Unit of the U.S. Biological Survey stationed at the University of Maine. At the time of his death he was also a Professor of Zoology at the University. He was a very productive writer, scientist, and teacher. He had a broad knowledge of both marine and freshwater fishes, and was very interested in stream ecology, the effects of forest practices on fish habitat, and tide pool fishes. He aided in the restoration of the Atlantic salmon in the Penobscot River. He was a very dedicated teacher who, since 1979, was the major professor for 34 graduate students, of whom he was very proud. He also served as a member of many other graduate committees. John's research efforts have been acknowledged by his receipt of numerous awards such as the Dwight Webster Award of Excellence from the American Fisheries Society. In addition to other honors from the American Fisheries Society, the National Biological Survey and the U.S. Fish and Wildlife Service also acknowledged the quality of his work. He also received numerous awards for his photography. A member of the American Fisheries Society since 1967, he served as president of the Northeastern Division as well as president of the Fisheries History Section. He was a Certified Fisheries Scientist. He has been a member of the American Society of Ichthyologists and Herpetologists since 1971. In 1995, he became an Elected Fellow of the American Institute of Fisheries Research Biologists. He was also a member of Sigma Xi. His affiliations included membership in the Western History Association, the Western Writers of America, and the Mining History Association. A prolific writer, John published over 137 scientific papers, as well as over five dozen freelance articles, short stories, newspaper articles, humor pieces and poems, and two non-fiction books. A new non-fiction book is due to be published this coming fall. John loved the American West. In 1995, his book, Arthur Hill: Western Actor, Miner, and Law Officer, was nominated for the Bancroft History Prize. Another book, Men With Sand, was nominated for a Spur Award. John is survived by his wife of 33 years, Kathleen; two sons, Matthew and his fiancé Lila Abraham; and Samuel and his fiancé Carrie Congleton; his brother and sister-in-law Peter and Silvija Moring and their daughter Rita; his brother-in-law Don Raig; and his loving dog Lucky. John enjoyed the dear friendship of many very special friends. A memorial service was held at 3 pm, Tuesday, May 21, 2002 at Brookings-Smith, 133 Center Street, Bangor, with the Rev. Robert T. Carlson, pastor of the East Orrington Congregational Church, officiating. Relatives and friends were invited to share conversation and refreshments at the Brookings-Smith Family Center, 163 Center Street, Bangor, following the service. Gifts in John's memory may be made to any of the following: the University of Maine for the Black Bear Scholarship Fund, Black Bear Club, 5747 Memorial Gym, Orono, ME 04469-5747; to The Homestead Foundation (of the Western Writers of America), James A. Crutchfield, Secretary/Treasurer, 1012 Fair Street, Franklin, TN 37064; or to the Northeastern Division of the American Fisheries Society (for students), attn. Scott Decker, New Hampshire Dept. of Fish and Game, 2 Hazen Drive, Concord, NH 03301.

From: Bangor (ME) Daily News, May 16, 2002.

John was not only a gifted scientist and an all-around good fellow, but was one of the most faithful contributors to Briefs. I'll miss him. Ed.

Northern California District Supports Students: Outstanding Student Presentations

For the second straight year, the American Institute of Fishery Research Biologists, Northern California District, organized the judging of student presentations at the Symposium and 36th Annual Meeting of the American Fisheries Society, California-Nevada Chapter, held at Granlibakken Resort and Conference Center, Tahoe City, California. Northern California District members conducted the judging, with help from AFS Cal-Neva members. Sixteen student papers were in the running for cash prize awards, including $100 for Best Student Presentation, and $50 for Best Student Presentation Runner-up. This year we awarded two runner-up prizes. Student posters from the AFS Poster Session, coordinated by Robert Blizard, were also evaluated by AIFRB members for Best Student Poster ($100 cash prize). All winners will receive a joint certificate from both organizations. This year's winners are:

Best Student Presentation: Helen Neville-Arsenault; University of Nevada, Reno. *Estimating Genetic Structure and Dispersal Patterns in Non-equilibrium Populations: Application of Novel Tools to a Metapopulation of Lahontan Cutthroat Trout.*

Best Student Presentation Runner-up: Sudeep Chandra; University of California, Davis. *Species Invasions and Cultural Eutrophication in Lake Tahoe: Documenting Changes to Lake Food Web Structure from Stable Isotope Measurements of Archived Museum Specimens.*

Best Student Presentation Runner-up: Peter Allen, University of California, Davis. *Warm Water-induced Growth Depression in Juvenile Green Sturgeon.*

Best Student Poster: Mike Limm, California State University, Chico. *Beneficial Rearing Habitat for Juvenile Chinook Salmon (Oncorhynchus tshawytscha) in the Sacramento River: An Analysis Using Otolith Microstructure.*

Congratulations to the winners and a heartfelt thanks to the seventeen judges who participated in the student evaluations during the three days of meetings. Thanks also to Larry Brown, President, AFS Cal-Neva Chapter, and to the Cal-Neva Chapter for providing funds for the student awards.

Submitted by: Tom Keegan, AIFRB Northern California District Director

Science Fair Judged: Great Lakes Members Guide Youth

The South Central Great Lakes District, AIFRB, presented four Special Awards at the 44th Annual Southeastern Michigan Science Fair, held at Washtenaw Community College, Ann Arbor, MI, March 8-9, 2002. The Award consisted of a handsomely printed Certificate of Recognition and an AIFRB logo hat. AIFRB was listed as an awarder of Special Awards in the Science Fair booklet and in an article in the Ann Arbor News, March 30, 2002.

The four winning projects:

1.) *An investigation into the uptake of phytoplankton by photosynthetic corals.* Senior Team Division. Jon Sanders and Megan Jensen, Kalamazoo Area Schools, Kalamazoo, MI. 2.) *Learning abilities in goldfish.* Junior Senior Team Division. Cheryl Wenzinger, St. Francis of Assisi Catholic School, Ann Arbor, MI. 3.) *What environment does a crayfish prefer?* Junior Experimental Division. Katherine Drake, Forsythe Middle School, Ann Arbor, MI. 4.) *Shells (Biodiversity Display).* Junior Division Models and Collections. Ann Arbor Open School, Ann Arbor, MI.

Judges for AIFRB were Dr. Neal R. Foster, Mr. John R.P. French, III, and Dr. Dora Passino-Reader. Mr. French was offered an AIFRB logo hat for serving as a judge for AIFRB. The Science Fair also provided a souvenir glass, tiepin, supper, and snacks for all judges.

Submitted by: Dora Passino-Reader

Do We Need To "List" White Marlin?

By Richard B. Stone

A recent petition to list white marlin as a threatened or endangered species by the Biodiversity Legal Foundation and James R. Chambers (see Briefs, Jan-Feb 2002) has stirred up more than a little controversy. At first reading this might appear to make one think: Great! Finally they're going to protect at least white marlin! But the situation may appear quite different if it is analyzed more thoroughly. There is no question that white marlin are over-fished. The latest assessments from the Standing Committee on Research and Statistics (SCRS) of the International Commission for the Conservation of Atlantic Tunas (ICCAT) continue to conclude that even with all the uncertainties inherent in the analyses, white marlin are over-fished. The real question is: are they threatened with extinction as the Petition states or are management measures in place domestically and internationally adequate to prevent extinction and allow long-term recovery?

To fully understand the merits, or lack thereof, of this Petition one needs to understand the ramifications and conditions of such an official listing under the Endangered Species Act (ESA). Regulations implementing the ESA state: "Endangered species means a species that is in danger of extinction throughout all or a significant portion of its range. Threatened species means any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Additionally, under the ESA one of the factors in determining endangered or threatened species status is whether or not any efforts are "being made by any State or foreign nation...to protect such species, whether by predator control, ...or other conservation practices, within any area under its jurisdiction, or on the high seas." A listing of white marlin as endangered could result in the prohibition of all fishing for billfish and similar species in large areas of the U.S. exclusive economic zone (EEZ) but would not affect foreign fishing outside the EEZ.

Domestically white marlin and other billfish species are managed under the Atlantic Billfish Fishery Management Plan (FMP) and reserved by law as recreational species with no retention or possession allowed in U.S. commercial fisheries. White marlin by-catch mortality does occur, however, in the swordfish long-line fishery (40.8 MT in 2000). The U.S. recreational fishery is virtually a catch and release fishery with strict minimum size and total catch allowances and only 0.2 MT reported landed in 2000. Thus, a State (the U.S.) does have efforts in place to conserve white marlin resources.

The major source of white marlin mortality comes from the foreign long-line fisheries. In 2000 an estimated 757 MT of white marlin were caught in these fisheries. International management initiatives for billfish through ICCAT have improved in recent years as a result of hard work by the U.S. delegation. The initial resolution in 1997 called for a 25% reduction in landings of all countries from 1996 levels. The annual amount of white marlin that can be harvested and landed for the years 2001 and 2002 can be no more than 33% of the 1999 landing level. In 2000, ICCAT also recommended that there be a minimum size for recreational catch (which the U.S. already had) and that all live white marlin caught by long-lines and purse seines be released in a manner that maximizes their survival. Information is not yet available that allows us to evaluate the effects of the 2000 recommendations. However, these measures meet another requirement under the ESA (i.e., efforts by any foreign nation) for protecting the species by conservation practices.

So what do we do? If we support the Petition to list white marlin we stand a chance of reducing the 40.8 MT domestic long-line catch through additional area closures, but we also stand a good chance of totally eliminating the recreational fishery for all billfish and any tournaments where white marlin might be taken – even catch and release tournaments! Keep in mind that fishing for tuna and other pelagics also could be eliminated in areas where one might encounter and hook billfish. Eliminating the recreational fishery for billfish is totally in opposition to the major objective of the Billfish FMP which states "maintain the highest availability of billfishes to the U.S. recreational fishery by implementing conservation measures that will reduce fishing mortality" and would cause considerable negative economic impact to many fishing communities along the Atlantic Coast.

Another option that I think is more prudent is to work hard within the international community to ensure that the ICCAT management measures are followed and improved. At the same time, we must insist that NMFS carry out the mandate of the existing Billfish FMP and reduce mortality in the domestic long-line fishery through additional area closures and gear modifications. As I have pointed out, there are domestic and international management measures in place. Also, white marlin are very fast growing as are other billfishes, so their life history, along with the management measures in place, makes it extremely unlikely that they will become extinct in a very short time as the Petition leads one to believe. These facts alone make listing improbable and the potential impact on recreational fisheries, when other means of stock recovery are available, make it unacceptable.

Make no mistake, we do need to focus on conservation efforts for white marlin and other billfish species. But let's do it through existing management bodies, and insist that NMFS fully implement the provisions of the Billfish FMP rather than resorting to drastic and unnecessary measures such as proposed in the Petition. This approach will benefit both the resource and the resource users.

New Red Porgy Stock Assessment: A sex-switching species remains in trouble

The red porgy stock assessment workshop (SAW) was convened by the South Atlantic Fishery Management Council at the NOAA Center for Coastal Fisheries and Habitat Research, Beaufort, North Carolina on Monday, April 8. The SAW's objectives were to conduct an updated stock assessment of the red porgy, *Pagrus pagrus*, stock off the southeastern U.S. and to conduct stock projections based on several possible management regimes.

Participants in the workshop included state, federal, and university scientists, as well as observers from the Council. The SAW worked at Beaufort until April 12 and continued its work, communicating by email and conference call, through May 6. All decisions regarding stock assessment methods and acceptable data were made by a consensus of all participants.

Available data on red porgy include abundance indices and recorded data on landings, including data on size and age distributions of some landings and indices. Four abundance indices were developed by the preceding data workshop (DW): two indices derived from catch per unit effort (CPUE) in the NMFS head boat survey (1976-1991 and 1992-1998) and two derived from CPUE observed by the SC MARMAP fishery-independent monitoring program ("Florida" trap index, 1983-1987; and chevron trap index, 1990-2001). Landings data are available from all recreational and commercial fisheries.

In addition to this report, a CD-ROM was produced that contains all data used in the assessments, reports of the DW, detailed explanation of data used, model runs and results, and computer code that was used for projection and the detailed projection results. The CD-ROM supplements this report by providing complete technical detail of the assessment and SAW process.

The SAW applied both age-structured and age-aggregated models to available data. The age-structured model was considered the primary model, as recommended by the DW.

Results of both models depict a heavily exploited stock with considerable decline over the period examined. Based on results of the base-case run of the age-structured model, the 2001 spawning stock size is estimate at about 43% of B_{MSY} (Biomass at maximum sustained yield) while the 2001 fishing mortality rate is estimated at about 45% of F_{MSY}(Fishing mortality rate at maximum sustained yield). Thus by standards of the Sustainable Fisheries Act and given the Council's definition of MSST (Minimum spawning stock threshold)= 0.775 B_{MSY}, the stock is estimated as over-fished (55% of MSST), but not presently undergoing over-fishing. The latter state reflects the restrictions imposed by Amendment 12. Estimates from sensitivity runs of the age-structured model and from several runs of the production model are quite similar. The picture of stock status is also consistent with the most recent previous assessment of the stock.

The protogynous nature of red porgy creates complications in management not encountered with gonochoristic species. Protogynous species may switch from female to male as they age. Selective removal of larger fish, predominantly males, can affect the reproductive potential of the population to some unknown degree. SSB (Spawning stock biomass) in this assessment combines males and females and therefore assumes both sexes have equal contributions to production of recruits. Preliminary examination of SSB by sex indicates the fast drop in SSB in the early years of the fishery was due to the removal of large males and male spawning biomass. The female spawning biomass was reduced at a slower rate particularly after imposition of minimum size limits.

In such a situation, a target fishing mortality with large minimum sizes in the fishery is likely to result in differential mortality between the sexes. Consequently, the target fishing mortality may achieve the target SSB while the corresponding sex ratio of the population may not be optimal for sustaining yield. For that reason, Vaughan et al. (1992) recommended use of total mature biomass, rather than female mature biomass, in estimation of reference points based on spawning biomass. The effect of fishing on the transition rate from female to male has not been well studied. In devising management measures to rebuild the spawning stock, the size and sex structure of the target SSB should be considered as well as its total biomass.

Stock projections were used to estimate the years in which the stock would have at least a 50% probability of reaching B_{MSY} under four possible management policies. Results are: under F= 0, by 2010; under a moratorium (by catch mortality only), by 2013; under Amendment 12, by 2018; under Amendment 9, not within the 25-year span of the projections.

The entire document can be accessed at: http://shrimpccfhrb.noaa.gov.~mprager/rpsaw/

Coastal Zone Management Through Time
July 13-17, 2003
Call for Abstracts

Conference Themes: Port and harbor management, Regional land management, Management responses to coastal hazards, and Management of aquatic resources.

Oral Presentation: Present-Day Perspectives

Submit an abstract to give a 20-minute oral presentation on where we are today in one of the theme areas

Panel Session: Present-Day Perspectives

Submit an abstract to organize a concurrent panel session lasting one-and-a-half hours.

Dialogue Session: Present-Day Perspectives

Submit an abstract to organize a dialogue session lasting three hours.

Plenary Panel: Historical Perspectives

Submit an abstract to organize a plenary panel on one of the four major themes.

Plenary Panel: Present-Day Perspectives

Submit an abstract to organize a plenary panel on one of the four major themes.

Workshop or Training Session

Submit an abstract to organize a pre-conference workshop or training session of three to six hours in length.

Poster Presentation

Submit an abstract to present a poster on a specific theme topic.

Abstract Submission Guidelines: The accepted length for each abstract is 250 words or less; Abstracts must be received by Monday, September 16, 2002; All abstracts must be submitted on line via the submission form at www.csc.noaa.gov/cz2003; Acceptance notifications will be mailed by December 2002.

All submitted abstracts will be subject to peer review. Preference will be given to submitted abstracts that relate directly to one of the four conference themes. Originality, topical interest, and space constraints will also be considered.

Authors of accepted abstracts will be requested to submit a revised extended four-page summary of their presentation for publication in the conference proceedings.

All expenses involved in preparing and presenting papers are the responsibility of the presenters. All presenters are required to pay registration fees and all associated travel expenses.

Questions? Contact Jan Kucklick, Coastal Zone 03 technical program coordinator, at Jan.Kucklick@noaa.gov or (843) 740-1279

TRAVEL AWARDS AVAILABLE

Apply for a 2003 Research Assistance Award!! Would you be able to use up to $350 to present results of your original research at a scientific meeting? Or to conduct research at some distant study site? Join the list of noted awardees that have benefited from this financial assistance for research.

The Research Assistance (RA) Award was established in 1986 to support travel expenses associated with professional development. It is offered annually to graduate students and other Associate members of the Institute. The award is granted to cover travel expenses associated with presentation of results of original research at scientific meetings, or with conducting research at distant study sites. The criteria used to judge candidates are: Associate member in good standing, original paper or project of scientific merit, travel expenses not paid by study grants and not more than two RA awards received in a lifetime. How to Apply: Send a research abstract, a letter of support from the student's sponsor, and a two-page curriculum vitae to: Dr. Jerald S. Ault University of Miami RSMAS 4600 Rickenbacker Causeway Miami, FL 33149 Tel: (305) 361-4884 Fax: (305) 361-4791 ault@shark.rsmas.miami.edu

Deadline for receipt of application: August 2, 2002

Annual AIFRB Reception – August 18

On August 18, 2002 at the Baltimore Sheraton during the AFS meeting at 5:00 pm, the Board of Control (BOC) will sponsor a no-host AIFRB reception. This reception is open to AIFRB members, friends and anyone attending the AFS meeting. BOC and all current and potential AIFRB members are urged to attend this reception. It is one event that the BOC as a whole can participate, meet our members and reach out to recruit new members. Our brochure with membership application form will be available. A raffle is planned.

European Union (EU) Fisheries Policy: Commission outlines reform to give the EU fisheries sector a future

"It's make or break time for European Union (EU) fisheries. If we want to give our fishermen a future, we need a new Common Fisheries Policy (CFP). Either we have the courage to make bold reforms now, or we watch the demise of our fisheries sector in the years ahead. The desperate race for fish has to stop. Over - capacity is the enemy – not only of the fish stocks, but also of the future of our fishermen. We want EU aid to work for conservation, not against it. This means more EU money to help fishermen, more money to scrap vessels, no more money for building new vessels. Only the right balance between our fleet and available fish will bring economic stability to the EU fleet and maintain employment in coastal areas. The Commission is determined to end the yearly setting of fishing quotas at unrealistic levels. We want to see a long-term approach, allowing the dwindling stocks to recover and giving fishermen more stability to plan ahead. To clamp down on those who cheat we propose more efficient controls and tighter and uniform sanctions. We are laying out an action plan to fight illegal fishing and ensure sustainable fisheries beyond EU waters. Today we have fired the starting shot for a socially, economically and environmentally healthy EU fishing sector", Franz Fischler, Commissioner for Agriculture, Rural Development and Fisheries, said.

Achieving a smaller, but viable EU fishing fleet ....

Given the urgent need to reduce fishing effort, the use of public aid for new vessels or to make existing vessels more efficient is counter productive and can no longer be justified. Instead of allocating money to build new vessels to add to an overcapacity fleet, the Commission is opting to use public money to eliminate this excess fishing capacity and to help the fishermen who leave the sector find alternative employment or retired.

On the basis of current scientific advice about the main EU fish stocks and estimates of the activities of the fleets concerned, the necessary cut in fishing effort (between up to 30 and 60% according to the state of stocks and the regions) under multi-annual plans would result in an estimated withdrawal of some 8,600 vessels which represents 8.5% of the number of EU fishing vessels and about 350,000 GT or 18% in tonnage.

As a consequence of the reform, more EU funds would be available for: co-financing of national early retirement schemes; individual compensatory payments to fishermen in case of permanent withdrawal of their vessel; payments to fishermen to help them retrain or diversify their activities outside marine fisheries; or the introduction by Member States of nationally financed accompanying social measures for fishermen in order to facilitate temporary cessation of fishing activities in the framework of plans for the protection of aquatic resources.

Full document at: http://europa.eu.int/comm/fisheries/news_corner/press/info2_07_en.htm

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America's Most Endangered Rivers 2002

Same song, a few new dancers.

1.) Missouri River: Montana, North Dakota, South Dakota, Nebraska, Iowa, Kansas, Missouri – Threat: Dam Operations
2.) Big Sunflower River: Mississippi – Threat: Flood Control Projects
3.) Klamath River: Oregon, California – Threat: Water Withdrawal and Pollution
4.) Kansas River: Kansas – Threat: Pollution; Removal of Clean Water Act Protections
5.) White River: Arkansas – Threat: Navigation and Irrigation Projects
6.) Powder River: Wyoming – Threat: Coal Bed Methane Extraction
7.) Altamaha River: Georgia – Threat: Reservoir and Power Plant Construction
8.) Allagash Wilderness Waterway: Maine – Threat: Removal from Wild and Scenic Rivers System; Loss of Wilderness Values
9.) Canning River: Alaska – Threat: Oil and Gas Exploration and Development
10.) Guadalupe River: Texas – Threat: Water Diversion
11.) Apalachicola River: Florida – Threat: Dredging and Water Withdrawals

From: American Rivers, 30(2) Spring 2002

NOAA Proposed Rule To Place Limits on Charter Boats in Gulf

NOAA Fisheries has published a proposed rule for Amendment 14 to the Fishery Management Plan for the Coastal Migratory Pelagic Fishery of the South Atlantic Region and Amendment 20 to the Fishery Management Plan for the Reef Fish Fishery of the Gulf of Mexico.

Amendments 14 and 20 would:

Establish a 3-year moratorium on the issuance of charter vessel or head boat (for hire) permits for the reef fish fishery and coastal migratory pelagics fishery in the exclusive economic zone of the Gulf of Mexico.

From: International Angler 64(3), May-June 2002

Feds Reopen Klamath Irrigation Gates and Spawn a New Lawsuit

Salmon are Put at Risk. Again.

On March 29 Interior Secretary Gale Norton and Agriculture Secretary Ann Veneman ceremoniously reopened the water gates at the Klamath Project in Southern Oregon, diverting Klamath River water to farmers and away from salmon and the coastal communities that rely on them.

Biologists at the US Fish and Wildlife Service and the National Marine Fisheries Service issued letters approving the diversions for the months of April and May. Michael Rode, Klamath River coordinator for the California Department of Fish and Game told the Los Angeles Times, "Those flows are just far too low" to allow the fish to survive.

Rode told the Times the Klamath River needs at least 2,400 cubic feet of water per second during spring months to provide adequate habitat for young salmon. But federal officials have decided that flows of 1,742 cubic feet per second in early April, dropping to 1,043 cubic feet in late May, are adequate to protect the young salmon. Earthjustice responded in late April with a new lawsuit on behalf of a broad coalition of commercial fishing groups and environmental organizations aimed at getting adequate flows restored to protect the river's fisheries during the essential spring migration.

From: In Brief, Spring 2002

Fishing, boating strengthen our connection to waterways

By Kathryn Reshetiloff

National Fishing and Boating Week was June 1-10, 2002. Formerly focusing solely on fishing, the event has been expanded to promote boating as well. Fishing and boating are still favorite pastimes of many Americans. And obviously, the two often go hand in hand.

Recreational fishing and boating are good for our economy. It is estimated that more than half a million boats were sold in 2000 and more than $25 billion was spent at retail outlets in that same year for new and used boats, motors and engines, trailers, accessories and other associated costs.

Recreational anglers spend more than $37 billion a year to fish. This tremendous economic impact includes $108.4 billion in industry output; $28.3 billion in salaries and wages; $5.4 billion in federal and state income and sales taxes; and 1.2 million full- and part-time jobs.

Over a year, the average angler 16 years and older spends $151 for fishing tackle and other equipment; $436 for trip-related goods and services; and $106 for transportation.

Fishing is also beneficial to the conservation of our aquatic resources. Excise taxes on fishing equipment fund the Federal Aid in Sport Fish Restoration Program. This program, coupled with fishing license sales, makes up 83 percent of the funding for state fisheries programs.

Abridged From: Bay Journal 12(4), June 2002

Maryland, VA speed up reductions on blue crab harvests

Faced with continued worries about the health of the Bay's most valuable fishery, Maryland and Virginia have opted to accelerate curbs on blue crab harvests. The two states had agreed late in 2000 to phase in a 15 percent reduction in harvest pressure over a three-year period, and both last year implemented the first 5 percent cut toward that goal. But rather than continue on that pace, the Maryland Department of Natural Resources approved new regulations in March that will put the full 15 percent reduction into force this year.

"As a result of these actions, Maryland will reach the goal one year early, and we do not expect to implement additional regulations for 2003," said state Department of Natural Resources Secretary Chuck Fox. In late February, the Virginia Marine Resources Commission approved new actions that would achieve an 11 percent reduction. The commission was expected to take further action at the end of April that would bring the total reduction to more than 14 percent. " If we do more than 10 percent this year, we'll have to do less next year," said Robert O'Reilly, a biologist with the VMRC. "And I think the end result is that everyone, the commission and the industry, will feel a little better about it next year." Officials in both states said part of the reason for speeding regulations was to reduce uncertainty for watermen, who have been facing changing rules each year. In addition, the quicker phase-in of regulations offers an added margin of safety for the blue crab stock. Last year, surveys continued to suggest that several key indicators of stock health were at, or near, all-time lows.

Because of mounting concern over the state of the crab population, the Bi-State Blue Crab Committee, created by the Chesapeake Bay Commission to help coordinate baywide management, called for the 15 percent reduction in fishing effort because it would ultimately result in doubling the crab spawning stock, a measure of reproducing females.

Scientists say that will result in a larger, more stable crab population which, in turn, means the crab catch will eventually increase, even as fishing pressure is reduced. Maryland plans, among other actions, to increase the minimum size for male crabs from 5 to 5.25 inches, as well as set new minimum sizes for "peeler" crabs and establishing an eight-hour workday. In addition, the commission is considering extending a blue crab sanctuary, which now exists in water more than 35 feet deep, into water that is only 30 feet deep. It is also considering a 1-week closure of the sponge crab (egg-bearing females) season in July, or actions that would result in an equivalent reduction, such as an 8-bushel per boat sponge crab limit for July. Those actions would bring Virginia's reduction to more than 14 percent.

Abridged From: Bay Journal, April 2002

Geoff Moser, AIFRB Fellow, Retires

Geoffrey Moser (AIFRB Fellow) retired on June 14, 2002 after nearly 40 years of service with the Bureau of Commercial Fisheries and successor agency the National Marine Fisheries Service. He is a world leader in the field of larval fish ecology and taxonomy. Thanks to his pioneering work, leadership, and excellence of his team at the Southwest Fisheries Science Center (SWFSC), LaJolla, CA, the larvae of most fishes in the California Current can be identified by visual means. Their identifying features are described in the 1,517-page monograph, the "Early Life stages of Fishes in the California Current" (CalCOFI Atlas 33), containing descriptions of 586 species and 2,500 illustrations. This book is one of the finest scholarly achievements ever produced by NMFS; it is widely used throughout the world as an identification guide and frequently copied by others in regional guides. Geoff Moser's work has been central to CalCOFI and continues to this day. In the early years most of the larvae taken in cruises were not identified, but today most of them are; over 500 species are routinely identified each year. He and his staff identified the larvae of many species which were previously unidentified. In addition, they went back through the past collections identifying larvae using the characters thereby making a new time series for species starting from the beginning of CalCOFI. This huge task was accomplished while overcoming a large backlog of unidentified plankton collections as well. This work is documented in a series of CalCOFI Atlases and publications. The bottom line is that CalCOFI ichthyoplankton time series is, and continues to be, up to date so that the data are available for stock assessments from the current year back to 1950.

Geoff has published many outstanding papers on larval ecology over the years and recently he has begun studying assemblages of species as a measure of the ecosystem state. His ideas are just the beginning of a new understanding of ecosystem function provided by the CalCOFI time series, which will hopefully be carried onward by others. The SWFSC expects to continue the fine tradition that Geoff established, of making ichthyoplankton data a practical and timely source of information for resource investigations and stewardship. However, it is undeniable, the SWFSC and CalCOFI family is losing one of the best minds in the field, and an unparalleled source of knowledge on the early life history and ecology of larval fishes. The family will not be the same without him. His friends and colleagues wish him well in his new future.

Submitted by; John Hunter

Hatchery crab release planned to try to boost dwindling wild population

Scientists in Virginia and Maryland are planning an experimental release of 40,000 hatchery-raised crabs to boost the Chesapeake's dwindling crab population. The crabs will be placed in selected tributaries this summer to see if rivers and creeks that don't seem to have many crabs will be able to support them. If the crabs thrive, the experiment could be the first step toward supplementing the Bay's dwindling crab population through captive breeding.

Abridged From: Bay Journal, April 2002

Protecting speedy migrants of the sea

Bluefin tuna are built for speed. Capable of accelerating to up to 55 mph, these pelagic Olympians are known to travel thousands of miles. Given their itinerant ways, effective management requires extensive collaboration among nations.

A decade ago, Environmental Defense worked with the United Nations on an agreement to protect migratory fish species, including tuna, swordfish and sharks. The accord went into effect recently after being ratified by 30 nations, including the United States. "Although some parts of the high seas are already covered by international rules, other areas are completely unregulated" says marine ecologist Dr. Rod Fujita. "This treaty will help fill important gaps in the conservation of fishes that migrate."

Fujita played a pivotal role in developing the agreement's wording, ensuring that the United Nations adopted a precautionary and ecosystems-based approach toward management of these vulnerable fisheries. In addition to regulating catches, the pact sets a precedent for safeguarding habitat.

From: Environmental Defense (33) 3, May 2002

Preserving unique ecosystems in Cuba Potential Marine Protected Areas is Caribbean

Anchoring off Cuba's coast, Columbus pronounced it "the most beautiful land ever seen." Centuries later, the brilliant white beaches remain largely untouched. "Few Cubans have boats – and fewer have gas," explains Environmental Defense (ED) scientist Dr. Ken Lindeman.

Politics and poverty have insulated Cuba from development and the environmental destruction that often accompanies it. But now hotels are popping up across the island, and tourism is projected to double by 2005. For seven years Lindeman has been working with Cuban researchers to lay the groundwork for marine conservation. "Cuba still has an opportunity to build protections," he says. By co-sponsoring workshops and educational exchanges, we are helping assemble scientific information for a network of marine protected areas. Several dozen sites, potentially protecting hundreds of square miles, are under consideration.

Protecting Cuba's coastline also involves policies on land. "Cuba has excellent laws in place," notes ED attorney Dan Whittle. "The challenge is implementation." To inform developers and government agencies about watershed protection and other sustainable practices, we are writing a coastal policy handbook with Cuban policy experts. "Our goal is to ensure that the environmental review process is thorough and open," says Whittle. Lindeman and ED analyst Azur Moulaert recently taught the first-ever course on coastal management by a U.S. nonprofit at the University of Havana. "Helping Cuba protect its waters is a win-win situation," says Lindeman. "Because of prevailing ocean currents, the conservation of the country's fisheries may help replenish U.S. fisheries as well."

From: Environmental Defense 33(3), May 2002

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American Institute of Fishery Research Biologists

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VOL. 31, NO.4 JULY, AUGUST 2002

Our New President Dick Schaefer

Incoming President Dick Schaefer accepts gavel of office from his grateful predecessor, Gary Sakagawa. Baltimore 2002.

President's Report for 2002

Gary Sakagawa

At our BOC meeting in Phoenix, Arizona a year ago, I delivered what was intended to be my last President's report. Instead, at the end of that meeting, I was elected Interim President for a year until a President-elect could be elected, and was told to return the following year with another report. So here I am again, reporting to the BOC.

How well did the Institute do in achieving its objectives during the past year? We made advances in some and need improvements in others. Our objective of recognizing outstanding achievement and competence of fishery scientists was advanced with selection of Dr. Fred Utter to receive the Institute's Outstanding Achievement Award-Individual category for 2002. Fred was recognized for his outstanding life-time work in fisheries research and in training students. Our W.F. Thompson Award for 2001 went to Dr. Mark Terwilliger for his student paper, published in 1999, "Age, growth, longevity, and mortality of blackcheek tonguefish, Symphurus plagiusa (Cynoglossidae: Pleuronectiformes), in Chesapeake Bay, Virginia" (Fish. Bull. 97). Our W.F. Thompson Award Committee, chaired by Jack Pearce, for the 2002 award completed its task and selected Dr. Axayacatl Rocha-Oliveres as the recipient for his paper, "Molecular identification and description of pelagic young of the rockfishes Sebastes constellatus and Sebastes ensifer" (2000, Fish. Bull. 98). Our Outstanding Achievement Awards Committee, chaired by Linda Jones, also completed its tasks and submitted recommendations for the Board to consideration at this Baltimore meeting.

Our objective of promoting advances in fishery science and high professional standards of conduct by fishery scientists also was advanced during the year. Eighteen members met professional requirements for advancement in rank during the year. Members promoted to our highest rank of Fellow were: Kenneth Beal, David Bennett, Richard Brodeur, George Burgess, David Geist, Richard Jacobson, John Michael, Jr., and Edward Ueber. Tom Lambert, who has served the Institute in various capacities and has done an outstanding and sustained job, was selected to receive the Institute's Distinguished Service Award. Richard (Dick) Schaefer was elected as our President-elect. He takes over as President after the August BOC meeting.

We continued to select the best candidates to serve on committees and to expand woman and minority participation in our activities. These volunteers provide the Institute with much needed assistance and they gain, in return, different perspectives, networking opportunity, and a better understanding of the Institute's role and purpose.

Six issues of *Briefs* were published during the year. The latest, May-June issue, was mailed this month. *Briefs* featured news, about Institute activities and members, and opinions of colleagues. We continued to maintain a website (www.aifrb.org) to serve as an additional source, besides *Briefs*, for current information about the Institute and its activities. In 2001, the Institute became a co-sponsor of the 4th World Fisheries Congress. The Congress is planned for 2004 and will be held in Vancouver, British Columbia. The Institute's involvement is limited to matters concerning the technical program for the Congress.

We did not do well with some objectives and we need to implement corrective actions for those where corrective actions are not yet underway. Operating revenue, for example, fell by about 30% from the year earlier largely because of reduced receivables from dues, voluntary contributions and investment income. Reductions in spending approved by the Board in Phoenix appear to have lowered expenses by an estimated 10% from the year before. The exact amount of reduction won't be known until all expenses for this BOC meeting are tabulated. Nonetheless, the preliminary data indicated that expenses and revenue for operations will balance out at the end. In other words, we dodged the deficit spending issue this year. Next year, however, we face a similar balanced budget problem again. Adjusting spending downwards further will cripple the future of our projects – some projects, in my view, are already under-funded and in need of upward adjustment. Revenue needs to be increased. An increase in

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

membership dues appears to be the only immediate solution for increasing revenue. Increasing voluntary contributions and recruitment are alternatives. Pursuit of a solution to increasing revenue needs urgent Board attention.

I would like to note that although the total revenue from voluntary contributions fell from the year earlier, the number of members and friends making donations to the Institute continues to grow. I appeal to all members and friends to make a voluntary donation to the AIFRB for either the Founders Fund or for unrestricted use to assist the Institute in carrying out its objectives. Donations to AIFRB are tax deductible.

Plans to select candidates for the Institute's Research (travel) Assistance Awards for 2002 hit a snag and a solicitation announcement did not appear in *Briefs* as planned. Consequently, the selection process has not yet been completed. The process will be completed in the months ahead and winners announced before the end of the year. The Committee, chaired by Jerry Ault, plans to distribute up to $350 per recipient to support participation in a professional conference or for travel to research sites.

We also appear to be falling behind in advancing the profession. Howard Schuck provided reflections on a number of issues in this regard (see *Briefs*, March-April 2002). His reflections along with almost daily news and reports about the depletion of fish stocks, collapse of fisheries, economic hardship of fishermen and failures in stewardship ought to be nagging at fishery scientists to take stock. What has gone wrong? What has gone right? Has our scientific research kept up with the demands for fishery management advice? Are we pursuing the right types of research for developing appropriate solutions to fishery issues? Are we demanding and training the right stuff, including professional conduct and ethics, to the next generation of fishery scientists? All of these questions and more ought to be the subject of debate. We can learn from our successes and failures and plot a new direction or fine-tune our current direction in order to meet the changing needs of society. Our Celebration (50th Anniversary) 2006 Committee, chaired by Bruce Miller, might consider some of these questions for discussion at the Celebration 2006 conference.

In closing my report, I wish to thank the BOC officers, District Directors, Committee Chairs and Committee Members, who volunteered their services, worked diligently on assignments and served during my tenure. You did a sterling job and the Institute would not have been effective without your involvement. I appreciate your service and trust that you will continue to serve the Institute. It was a pleasure working with a stellar group of colleagues, who did not flinch from challenges. Finally, I wish to thank the membership for the continued support, encouragement and constructive suggestions. I trust that Dick Schaefer will now receive your support and together we can reach greater heights in advancing the objectives of our Institute in the coming years. Thank you again.

Gary Sakagawa, Interim President

August 17, 2002

Thanks for your generous donation.

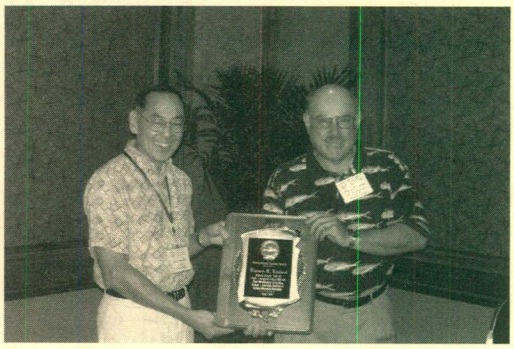
AIFRB Distinguished Service Award: 2001 to Thomas R. Lambert

By Barbara E. Warkentine, Secretary

AIFRB is proud to have among its members individuals who are willing to go that extra mile to help our Institute remain strong and keep it in the forefront of professional organizations. Thomas R. Lambert is just such an individual. In recognition of Tom's dedication and commitment to the Institute the AIFRB Board of Control has voted to honor him with the Distinguished Service Award.

Tom has been a member of AIFRB since 1974 and currently holds the rank of Fellow. From 1991 to 1993 Tom was the District Director for Northern California. Despite the fact that the duties of District Director can be quite demanding, Tom in 1992 volunteered to Chair the Associate Research Award Program. He continued to serve in this capacity until 1999 when he agreed to become the Chair of the Membership Committee. Tom, as Chair of this Committee, has significantly improved the procedures for handling applications for membership. Because Tom is such a willing worker and a delight to work with, he often sought out by his colleagues to participate in many other AIFRB activities, such as proofreading the Institute's Procedures Manual, and assisting in the redesign of our membership and award certificates.

AIFRB is honored to have such a dedicated colleague among its ranks.



Tom Lambert accepts Distinguished Service Award 2002 from President Sakagawa, Baltimore August 2002.

Minutes: (Much Abridged)
2002 Annual Meeting – Board of Control
Hyatt Regency Hotel
Baltimore, Maryland 17-18 August 2002

Attending: Officers: President Gary Sakagawa, President-Elect Richard Schaefer, Past President Clark Hubbs, Secretary Barbara Warkentine, Treasurer Allen Shimada, Membership Chair Thomas Lambert; District and Regional Directors: NW States, Northwest Washington, Bruce Miller; SW States & Mexico, Southern California, Michael Hinton; Northern California, Thomas Keegan; Arizona/New Mexico, G. Morris Southward; Central States & Middle Canada: Great Lakes Dora Passino-Reader; Northeaster States & Eastern Canada, Keystone Joseph Rachlin; Capital, Frank Panek; Southeast States & Eastern Mexico, Florida, Thomas Schmidt; Committee Chairs: Capital Management Committee, Charles (Pete) Cole; Members: Mark Collins (SC), Bill Wilson (AK), Gil Rudonski (NC)

Subset of attendees at Board of Control meeting, Baltimore, August 2002, l-r, Joe Rachlin, Morris Southward, Frank Panek, Tom Schmidt, Barbara Warkentine, Mike Hinton, Gary Sakagawa, Dora Passino-Reader, Dick Schaefer, Al Shimada, Tom Lambert, Tom Keegan and Bruce Miller.

Local Arrangements (Panek and Warkentine): District Director Panek, responsible for this year's meeting arrangements, acknowledged the assistance of Marilyn DeArman (AFS meeting coordinator) for her help in arranging for our meeting needs.

2002 Membership List and Directory: Treasurer Shimada made the membership directory available to all BOC members. The names of members are posted on the website and are updated regularly.

Treasurer's Report:

State of the Treasury: Treasurer Shimada reviewed the financial activities for the period of Sept/01/01 to July/31/02. At the close, the total income was $21,619.89. Total expenses $17,801.05. Estimated cash at the end of fiscal 2002 is therefore $6,429.57. Assets, in the Capital Account totaled $37,186.78 from various money market funds, stocks, and mutual funds.

Delinquent Members: A list of delinquent members was distributed to the BOC for their review. Treasurer Shimada reported that there are currently 95 delinquent members for fiscal year 2002 dues. This represents a $2,850 shortfall in revenue to the Institute. This discussion resulted in the following recommendations:

1. The Treasurer will continue to send out dues notices using the current format.
2. Separate mailings will go out during the year to all delinquent members. These members will be fully informed as to what year(s) (fiscal) they are in arrears.
3. A mid-year listing of delinquent members will be sent to all District/Regional Directors. This list will include full addresses and years in arrears.

Founders Fund: Treasurer Shimada stated that the market value for this account stands at $7,324.44. The market loss over the past year was -$8,516.70. The Treasurer will consider a more diversified portfolio and work with the Capital Management Committee to revise investment strategies.

Membership Committee (Lambert):

Results for 2002: Dr. Cecil Jennings of the University of Georgia has been appointed to the Committee. This year there were 11 new members and 18 promotions. Chair Lambert emphasized the importance that personal contact by BOC members to potential members is important. One half of this year's new recruits were brought in by BOC members.

Progress with Implementation of Press Releases for New Fellows: Chair Lambert proposed the following plan for handling press releases:

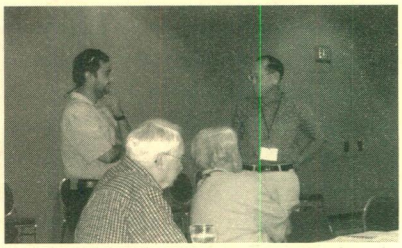
1. Using the individual's CV/Resume to write up a bare bones release; 2. Get a quote or two from the fellow; 3. Send the release back to the fellow for his/her use.

The BOC suggested that the release, once approved by the fellow, be sent to the Executive Officer and the public relations office at the individual's place of employment. It was also suggested that special publications such as Alumni publications receive the release.

Recommendations and Plans for 2003: Recruitment is a significant part of the responsibilities of Regional/District Directors. Chair Lambert suggested that Regional/District Directors contact schools to solicit recruits. Chair Lambert will provide all Regional/District Directors with a list of new members within their areas so that they can personally contact these individuals. He will also notify all Regional/District Directors of any status changes associated with their members. Directors were reminded of their responsibilities to maintain contact with their members and of ensuring that their members seek promotion in rank when appropriate.

President-Elect Schaefer stated that part of the problem with recruitment is that many people don't know what they are being recruited for. This needs to be addressed.

W.F. Thompson Award Committee (Warkentine for Pearce): The committee selected Dr. Axayacatl Rocha-Olivares to receive the W.F. Thompson Award for his paper entitled: Molecular identification and description of pelagic young of the year rockfishes. *Sebastes constellates and Sebastes ensifer*, published in Fish. Bull. 98:353-363, (2002).



Dr. Rocha-Oliveres (left) recipient of the W.F. Thompson Award 2002 and Gary Sakagawa at Board of Control meeting, Baltimore, August 2002.

Research Assistance Award Committee (Ault): The award was delayed because the committee received only 5 applications. Various BOC members voiced their opposition to this delay. A ***motion*** by Director Rachlin that the Research Award Committee consider only the five applications received and that individual awards need not to be of a set value but can be from $100 to $350 was **seconded** and unanimously **approved** by the BOC.

Outstanding Achievement Awards Committee (Jones):

Nominations (individual) for 2003: The committee recommended two individuals. A ***motion*** by Director Passino-Reader to present the Award (Individual) to Dr. Howard Bern was **seconded** and unanimously **approved** by the BOC.

Nominations (group) for 2003: The committee recommended two groups for consideration. A ***motion*** by Past President Hubbs to present the Award (Group) to the Great Lakes Fishery Commission was **seconded** and unanimously **approved** by the BOC.

Recommendations: The BOC reviewed recommended criteria for ranking nominees for the Individual Achievement Award. The BOC supported the five criteria set forth by the committee and recommended a sixth criterion: 6. Significant contributions to the advancement of fisheries management.

For the group award, the BOC agreed with the committee's recommended criteria for ranking the group nominations. The BOC recommended that the criteria be parallel to those for the individual with a minor adjustment to criteria number 1. For the Group awards it should read as follows: 1. Contribution of significant publications.

Distinguished Service Award (Sakagawa):

2001 Award Presentation: President Sakagawa presented the Distinguished Service Award to Membership Chair Tom Lambert.

2002 Awards: The committee gave the 2002 Distinguished Service Award to Secretary Barbara Warkentine for her continuous service to AIFRB.

Report on *Briefs*: President Sakagawa reported for Editor Huntsman that six issues of *Briefs* were produced this year.

Report on Productions: President Sakagawa reported for Productions Editor Merriner. Membership brochures were updated and made available to District Directors throughout the year and for the BOC meeting. The BOC emphasized a need to have a poster produced that could be electronically transferred to District Directors. Director Passino-Reader has agreed to work with Productions Editor Merriner to move this production forward.

The BOC established that the Institute would maintain two poster types: 1. Standard table format for the annual meeting, and 2. Roll-up poster. The Productions Editor would still maintain and update both poster types. The roll-up poster would have national and region applications. This would have a standard format that would allow for a district section.

The BOC agreed that the membership brochure be updated. The application section needs more space available for the applicant's information.

District Reports on District Activities: Some districts have not held elections for officers in accordance with AIFRB bylaws. The President will notify District Directors of their obligation of holding elections for District Officers.

Project Reports:

Website and proposal to change server (Hinton): Director Hinton had agreed to remain as the AIFRB Webmaster. The site now contains the District Bylaws, *Briefs*, and membership list. There is room on the site for districts and District Directors should make use of this. Materials for posting on the Website should be in straight text using either Word or Word Perfect. Digital photos are welcome.

We might want to have members select to receive *Briefs* by e-mail, Website or hard copy to cut operating expenses. President Sakagawa suggested that we ask members by having printed on the dues cards their preferred medium for *Briefs*: email, website, or hard copy.

Passino-Reader suggested, based on feedback from members, that the site contain such things as job notices and grant

postings. Hinton suggested that we consider links to Institutes that have a concentration of AIFRB members. For example if a person asks "Where can I get an education in fisheries?", the AIFRB Website would point them to centers that have a strong core of AIFRB members.

World Fisheries Congress IV (Sakagawa and Gunderson): Our intention to head a session did not succeed. Don Gunderson continues to explore our involvement in this Congress.

Celebration 2006: This meeting will be in Seattle to celebrate the 50th Anniversary of AIFRB at the site of origin. Having the celebration at one of the NMFS sites would keep costs down. The first week in June would be a suitable time.

Founders Fund: Sakagawa and Archivist Myers will inform relatives of Founders of this fund. Donations totaling $6,500 were received this year. Unrestricted donations greater that $50 are assigned to the Founders Fund. Unrestricted donations that are less than $50 are assigned to operating budget. This year the family of Dr. Cleaver donated $1,000 to the fund. Treasurer Shimada acknowledges donations and suggested that the President send letters of acknowledgement as well. President Sakagawa will acknowledge donations in *Briefs*.

The market has hurt the fund significantly. Hinton suggested that we consider a more diversified investment strategy given the current bear market. Rachlin suggested that no new money to the fund be invested into AOL until it stabilizes. Miller suggested that Treasurer consider bonds. Treasurer Shimada accepted all suggestions and will be contacting the Capital Management Committee members for their input and advice.

Handing of Fish (Hubbs and Rachlin): Director Rachlin indicated that the committee has approved the final draft of the document regarding guidelines for the care and handling of fish and it is now in the hands of AFS for review and action.

New Business:

Nominating Committee: Candidates must be at the rank of Fellow and must not reside in the Southwest states and Western Mexico Region or the Northwest States and Eastern Canada Regions.

Proposal for an AIFRB Symposium: Fellow Doug Vaughan proposed that AIFRB co-sponsor a symposium at the 2003 AFS meeting in Quebec City on the topic of quantitative methods for fisheries science. A ***motion*** by Director Hinton to co-sponsor this symposium was **seconded** and unanimously **approved**.

Sakagawa suggested that organizers of this symposium select and reward the best paper based on content and presentation. The nature of the award for this paper was discussed. Because organizers are commonly presenters, this judging and award process would need to be carefully worked out. President-Elect Schaefer will do this.

Balancing the Budget:

Proposal: Dues Increase. Members of the BOC opposed increasing dues. Panek argued that the Institute should not balance the budget by increasing dues but by increasing membership. Rachlin stated that we must find out why people are leaving AIFRB. From exit polls we can work towards addressing their concerns. President-Elect Schaefer stated that we must make clear to our members and to those we are trying to recruit what the benefits of membership are. We need to sell ourselves, e.g. place an ad in Fisheries. We need to put a real recruiting campaign together. It was suggested that a committee might be formed to explore our marketing strategies. Dues will not increase.

Proposal: Limit BOC meeting travel support. The BOC opposed this proposal. The current reimbursement policy will remain in place.

2003 Budget: The BOC agreed that we should be actively asking for donations and that there be published in *Briefs* a request for tax-deductible donations. For next year the BOC agreed to allocate $500 for the Thompson Award and $1,050 for the Associate Research Awards. We will publish six issues of *Briefs*. There will be a mid-year assessment of our finances.

Proposal: Membership concerns survey. Such a survey will not be conducted at this time.

Election Procedure: Warkentine was concerned about how the ballots for President-Elect were mailed. Many ballots returned after the date with indications that said "sorry but I didn't get around to reading the newsletter". The newsletter is a low priority piece of mail. If there is time sensitive material enclosed, then it must be noted on the outside cover. Warkentine suggested that the newsletter be stamped with "Ballot enclosed open immediately" or that there be a separate mailing for ballots. The BOC agreed that a separate mailing will be done for ballots.

District Structure: Hinton pointed out that the Institute might wish to look at how large a district is with regard to the region. Having large districts could account for the fact that many districts are having difficulty getting their members together for events. He further pointed out that large districts prevent adequate contact between members and the District Director. He proposed that a seventh region be considered that would consist of Arizona, New Mexico, and Texas. Currently these three states are with the southern California District. A ***motion*** by Rachlin to form a committee to examine and evaluate the realignment of regions and to consider in their examination and evaluation process the foci of activities within the regions and districts was **seconded** and unanimously **approved**.

***Briefs* publication frequency:** It was proposed that we publish *Briefs* quarterly rather than bi-monthly as a way of cutting expenses. Treasurer Shimada informed the BOC that publishing four instead of six issues would not save the Institute much money. Many BOC members opposed reducing the frequency of publication.

Recruitment and retention: President Sakagawa reminded all Directors that they could request special funds for recruitment activities. The BOC explored different ways to increase membership. Director Southward said that the Institute needs to shift

its thinking. Think about publishing something more than *Briefs*. Perhaps a special publication that focuses on issues of concern to fishery science (i.e. What does biodiversity mean?) could be produced. It would contain philosophical discussions. A committee should be formed to look at the feasibility of such a publication. The BOC supported this idea and will explore issues that can be debated.

President-Elect Schaefer further suggested that we have a committee to look at recruitment and retention. Membership Chair Lambert outlined what our members currently get. Director Keegan suggested that we organize a student symposium. Director Rachlin suggested that we grab the current opportunities that are available at our annual meeting. Rather than just have the display unmanned at the meeting that we assign people to be at it. The BOC agreed with the suggestions made. However, a committee will be established by the incoming President to look at the issue of recruitment and retention. This committee will not be a sub-committee of the membership committee but will be a stand-alone committee. Director Hinton suggested that the committee's first charge be to develop a set message as to what AIFRB is.

2003 BOC meeting: The BOC once again discussed alternatives to meeting with AFS.

A ***motion*** by Director Hinton to have the 2003 AIFRB Board of Control meeting with AFS in Quebec City, Canada, was **seconded** and unanimously **approved** by the BOC.

A ***motion*** by Director Rachlin that the President confers with BOC members regarding have AIFRB disengage with AFS in anticipation of upcoming meetings, was **seconded**.

The BOC discussed that a committee should be formed to explore when and where to have a separate meeting.

A ***motion*** by Director Hinton to amend the previous motion to have the incoming President create an *ad hoc* committee as a time and place committee was **seconded** and unanimously **approved** by the BOC.

Introduction of new President: President Sakagawa turned over the gavel to President-Elect Schaefer. Schaefer will serve as President for the next three years until the end of the 2005 BOC meeting.

President Schaefer informed the BOC that his goals include: 1. developing a clear understanding of what AIFRB is, and 2. developing a recruitment and retention plan. He will continue to advance the programs of Sakagawa.

Appointments (Schaefer): President Schaefer made the following appointments for the 2002-2003 year. ***Regional Directors:*** Bruce Wing, Alaska & Western Canada; Bruce Miller, NW States; Raymond Wilson, SW States & Mexico; Dora Passino-Reader, Central States & Middle Canada; Jack Pearce, NE States & East Canada; Thomas Schmidt, SE States & East Mexico. ***Officers and/or Directors:*** Secretary, Barbara Warkentine; Treasurer, Allen Shimada; Membership Chair, Thomas Lambert. ***Standing Committees:*** Archives, Kate Myers; Capital Management, Charles Cole (Chair), Joseph Rachlin, and William Wilson; Distinguished Service Award, Clark Hubbs (Chair), Vaughn Anthony and Gary Sakagawa; Membership Committee, Thomas Lambert (Chair), Cecil Jennings, Joseph Margraf, Douglas Vaughan, and Barbara Warkentine; Publications, BRIEFS Editor – Gene Huntsman, Production Editor – John Merriner, Correspondents – George Guillen; Outstanding Achievement Award, Linda Jones (Chair), John Helle, and William Taylor; Associate Research Award, Jerald Ault (Chair), Colleen Caldwell, and Robert Stickney; W.F. Thompson Award, John (Jack) Pearce (Chair). ***Special Committees:*** President-Elect Nominations, Gary Sakagawa (Chair), Charles Cole, Vaughan Anthony, and Clark Hubbs. AIFRB meeting (2003), BOC members; Web-page, Michael Hinton, Joseph Rachlin, James Nance, and Kate Myers; Celebration 2006, Bruce Miller (Chair), John Merriner, Joseph Rachlin, and Thomas Schmidt; AIFRB-AFS Liaison, John Helle; World Fisheries Congress IV, Donald Gunderson.

A Passing

Leslie W. Scattergood

Leslie W. Scattergood, 88, a marine biologist who retired from the NOAA in 1980 as chief of the Scientific Publication Division, died on August 11, 2002 at a nursing home in Boothbay Harbor, Maine.

Les was born in Seattle, WA and graduated from the University of Washington in 1936 and was a teaching fellow in fisheries at the University until 1939. While in school he worked in a salmon cannery in Alaska, the International Pacific Halibut Comm., International Pacific Salmon Comm., and the Washington State Dept. of Fisheries. He was hired as an Aquatic Biologist in 1939 by the U.S. Bureau of Commercial Fisheries (later the FWS, BCF, and now NMFS) in Boothbay Harbor, ME. During World War II, he was assigned to the Office of the Coordinator of Fisheries. After the war, with additional funding in Maine, he conducted research on species in the Gulf of Maine, was in charge of the Herring Investigations, and became the Director of the BCF Biological Laboratory from 1958-1961. He was Chief of the BCF Division of Publications in Washington DC from 1961-1970 and continued in a comparable position under NOAA until 1972. From 1972 until he retired in 1980, Les was Chief of the Scientific and Technical Publication Division of the Environmental Science Center – responsible for scientific publications of the Weather Service, National Ocean Survey, Satellite Service, Geodetic Survey, and NMFS.

In 1952-53, Les worked for the United Nations Food and Agriculture Organization (FAO) in the Republic of Panama where he conducted research on shrimp. In 1953-54, he was a Fulbright Scholar in Bergen, Norway at the Norwegian Institute of

Marine Research. From 1956-59, he was chairman (U.S. Section) of the Research Committee of the International Passamaquoddy Fisheries Board that examined the potential effects of the proposed tidal dam in the vicinity of the Bay of Fundy. He was a Fellow and District Director of the American Institute of Fishery Research Biologists; a Certified Fishery Scientist in the American Fisheries Society and served on a number of committees and the AFS Editorial Board. Les was also a member of the Wildlife Society and served as Chairman of the Fisheries Publication Awards Committee; was a member of the Atlantic Fishery Biologists; Editor of the Atlantic States Marine Fisheries Comm.; Assoc. Editor of the Progressive Fish Culturist; member of the Conference of Biology Editors and was on a Working Group of the UNESCO Scientific Committee on Oceanic Research which met in Plymouth, England and Marseilles, France to improve the distribution of marine science information. He attended six Gordon Research Conferences on science information. (GRC is a non-profit organization that provides international forums for discussion of research and technologies in the biological, chemical and physical sciences and is headquartered in Kingston, Rhode Island.)

I had the good fortune to have Les as my boss when I transferred to the Boothbay Harbor Lab, and soon realized what a bibliophile he was. I was impressed by his wide interests which were in evidence in his publications (over 80) on a variety of species and topics including lobsters, sea urchins, shrimp, mussels, crabs, herring, cod, kokanee, sharks, mackerel scad, and berycids as well as marine mammals and turtles, birds, fish diseases, fisheries and fishing methods, compiling translations of foreign literature, etc. His papers and notes added measurably to the knowledge of organisms in the Gulf of Maine. Though not as well known or appreciated in fishery circles, his contributions as an editor and as chief of publication units improved the caliber of federal fishery publications and fostered a broader dissemination of scientific information. Les' achievements were accomplished without fanfare – typical of his considerate, dignified character.

Les was an active member of the Friends Meeting of Washington DC and after his retirement helped prepare hot meals for elderly members who gathered weekly for food and conversation. The family retained ties to Maine, returning each summer to their cottage in Southport. Les was preceded in death by is wife, Edna, in 1995 (she was his grade school sweetheart), and his oldest son Charles, who died in 1999. He is survived by a son, Leslie Scattergood, Jr., of Oak Hill, VA; two daughters, Elizabeth Scattergood Segal of Annandale, VA and Katie Scattergood of Boothbay Harbor, ME; nine grandchildren and five great-grandchildren. Memorial contributions may be made to the Coastal Maine Botanical Gardens, P.O. Box 234, Boothbay, ME, 04537.

Submitted by Bernard Skud

Membership Report

Tom Lambert, Membership Chair

***New Members**: Associate – Student*: Young Sin Kim; *Associate – Professional*: Emily G. Wyro, Shelly Hatleberg, Summer M. Morlock; Natasha Benjamin; *Member*: Oscar Sosa-Nishizaki, Kathleen (Kate) A. Moots; Michael S. Trianni, Luis E. Calderon, David E. Cowley, Vidar G. Wespestad; *Fellow*: Pamela M. Mace, Mark L. Wildhaber, Michael H. Horn; ***Promotions:** To Member*: Diana L. Watters; *To Fellow*: Kenneth L. Beal, David H. Bennett, Richard D. Brodeur, George H. Burgess, David R. Geist, Richard A. Jacobson, John H. Michael, Jr., Edward Ueber; *Emeritus*: Robert L. Burgner, Reeve M. Bailey, Fredrick M. Eiserman, Edmund S. Hobson, Joseph H. Kutkuhn, James Joseph, Richard L. Ridenhour, C. Lavett Smith, Paul Yokley, Jr.

Direct inquires on joining AIFRB or requests for promotion to: Tom Lambert, AIFRB Membership Chairperson, 3162 Mariola Rd., Sebastopol, CA, 95472, (707) 829-7882, fax (707) 829-8234, lambert5@pacbell.net

Another Major New England Defection

Angelo Incerpi, not an AIFRB member but widely known, has retired after 35 years from the Vermont Department of Fish and Wildlife. A retirement celebration was held September 6, 2002 in Montpelier.

Fellow Warner Retires After A Half Century

Fellow Kendall Warner has retired after a 50-year career with the Maine Department of Inland Fisheries and Wildlife. Receiving a B.S. from the University of Maine in 1950, and a M.S. from Cornell in 1952, Ken held a succession of responsible positions in Maine concluding with the post of Fishery Research and Management Supervisor in which he has served since 1984. Ken is an AFS Certified Fishery Scientist and has served as President of the Northeastern Division (1972-1973) as well as Chairman of their Program (many times), Archives, Awards, Resolutions, and Past-President's, Committees. Warner has been an AIFRB Fellow since 1971, a member since 1970, and served on our Membership Review Committee for 16 years, 1981-1977. Among Ken's many honors are The Northeast Division AFS's Professional Award of Merit and Presidential Award, The Silver Trout Award and Biologist of the Year Award from the Sunkhaze Chapter of Trout Unlimited, and the Thomas S. Pinkham Award from the Atlantic Salmon for Northern Maine organization.

$ 2003 Research Assistance Award Program $

American Institute of Fishery Research Biologists – 2002 Research Assistance Award Program – The Research Assistance (RA) Award established in 1986 is offered annually to AIFRB graduate students and other Associate members to support travel expenses associated with

professional development. The RA provides a maximum award of $500 towards the opportunity to present results of an original paper or research project of merit at scientific meetings, or to conduct research at distant study sites. All AIFRB Associate Members in good standing are eligible. An individual may receive 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) 361-4884, fax (305) 361-4791, HYPERLINK mailto: ault@shark.rsmas.miami.edu. Deadline is 1700 EST on April 17, 2003.

Our members at work: New Book Biology of the Spotted Seatrout

Stephen A. Bortone, Ph.D., Editor
The Conservancy of Southwest Florida, Naples, USA
A volume in the CRC Marine Biology Series

Biology of the Spotted Seatrout includes a classic systematic approach to studying the relationships between seatrout genera as well as a more modern approach to investigating intra- and inter-estuarine differences in genetic structure. Ecologists, fisheries biologists and managers, and environmental scientists worldwide will be able to use the information presented in this book as a model on which to establish a database of information to be used to assess and compare estuarine conditions and environmental health. This valuable book serves as a blueprint for bringing together the biological criteria necessary to begin landscape scale comparisons of estuaries based on the biological information of totally estuarine dependent species, such as the spotted seatrout.

Catalog no. 1129, July 2002, c. 296 pp.
ISBN: 0-8493-1129-2, $149.95

Gibbs Award – Nominations

Gibbs Award for Excellence in Systematic Ichthyology.

Nominations are solicited for the Robert H. Gibbs, Jr. Memorial Award for Excellence in Systematic Ichthyology from the American Society of Ichthyologists and Herpetologists (ASIH). The prize is awarded for "an outstanding body of published work in systematic ichthyology" to a citizen of a Western Hemisphere nation who has not been a recipient of the award. The award is offered annually and consists of a plaque and a cash award (approximately $5,000). The award is presented at the annual meeting of ASIH. Nominations may be made by any ichthyologists, including self-nominations, and should include the nominee's curriculum vitae, details of the nominee's specific contributions and their impact on systematic ichthyology. Nominations should be submitted by March 1, 2003 for the nominee to be eligible for that year's award. Nominations will be effective for three years. Four copies of each nomination should be sent to the ASIH Secretary, Dr. Maureen Donnelly, Department of Biological Sciences, Florida International University, 300 Northeast 151st Street, Miami, FL, 33181-3000, email: donnelly@fiu.edu or to the Chair of the 2003 Gibbs Award Committee, Dr. William D. Anderson, Jr., Grice Marine Biological Laboratory, College of Charleston, 205 Fort Johnson, Charleston, SC, 29412-9110, email: andersonwd@cofc.edu.

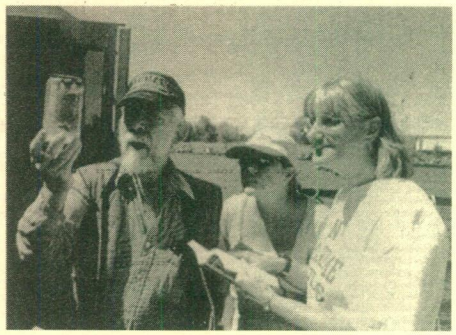
In July 2002 at the ASIH annual meeting in Kansas City, MO, the award for 2002 was presented to Dr. Joseph S. Nelson, Department of Biological Sciences, University of Alberta, Edmonton, for his outstanding contributions to the systematics of sticklebacks and psychrolutids and publication of three editions of his invaluable book "Fishes of the World".

Submitted by Bruce Collette

Marine Biologists Report a Thriving Bronx River

The Bronx River is thriving biologically and is a breeding ground and nursery for over a dozen species of fish and other aquatic organisms, from shrimp and horseshoe crabs to flounders and striped bass. That's the conclusion of marine biologists from SUNY Maritime College and CUNY's Lehman College, who have spent two years studying the river's estuary, which runs along a highly industrialized section for two miles north of its mouth at Hunts Point.

Despite the tires and car parts found along its shore and in its channel, the river is home to a surprisingly diverse fauna, including blue crabs, killifish and silversides that migrate into and out of the waterway. This summer, the biologists discovered the presence of two fish species – the naked goby and the seaboard goby, not seen before in the river, which they reported to the State Museum at Albany for its official records.



A team from CUNY and SUNY colleges in the Bronx are leading the Bronx River research effort. Above (l-r) Lehman Professor Joseph Rachlin CUNY doctoral student Linda Lulieata and SUNY Maritime Professor Barbara Warkentine identify new fish species found in the river.

CUNY and SUNY Colleges Take Lead in Bronx River Studies

On the research team were Dr. Barbara Warkentine, an aquatic biologist and coordinator of the Maritime College, Dr. Joseph Rachlin, director of Lehman College's Laboratory for Marine and Estuarine Research (La MER), and Dr. Antonios Pappantoniou, also of Lehman's Department of Biological Sciences, all AIFRB Fellows or members. Their collaborative relationship has made Lehman and SUNY Maritime – the only public senior colleges in the Bronx – the lead entities in studying the Bronx River

The quality of a river's water can be judged by the diversity and sensitivity of the species that live there. "Because sea anemones and oysters are sensitive species, they are classified as 'indicator species' of water quality," Dr. Warkentine explains. "Both species currently inhabit the Bronx River's estuarine section – an indicator of the high quality of its water despite the years of neglect and dumping that have made its shoreline relatively unsightly."

The river's estuary, which extends north to River Park at 181st Street, is a tidal area where salt water is gradually diluted by freshwater. The 23-mile river begins at the Kensico Dam just above White Plains and runs south through Westchester County and the central Bronx and at 181st Street becomes an estuary for about two-and-a-half miles to its mouth at Hunts Point.

Dr. Rachlin adds that, in terms of water quality, the river is safe for boating and even wading, although care has to be taken to avoid sharp pieces of metal that litter the bottom. He has spoken with community residents who regularly catch – and apparently safely consume – bass, flounder, blue crabs and other migratory species, but know to avoid oysters and other shellfish that live on the river's floor and may contain contaminants. The river is also home to shore birds, such as egrets, cormorants, blue herons, swans, ibis, mallards and a variety of gulls.

To conduct their studies, the scientists use SUNY Maritime's 46-foot-long research vessel. On August 9, while on one of their regular sampling runs, they observed a "dinoflagellate" bloom in the vicinity of Lafayette Avenue, which turned the river the color of red wine. Blooms of these microorganisms often temporarily lower the water's oxygen levels, creating stress for the fish. By August 14, the condition appeared to be abating.

Congressman Sees River's Great Potential for Recreation

Despite such occasional events, the scientists agree that the river is ready for a major clean-up and restoration so it can be used by the community as a valuable recreational resource. Congressman Jose Serrano, whose district includes the river's estuary, has worked with Governor Pataki to secure federal funds for restoration and educational studies of this body of water.

The Bronx River research by Rachlin, Warkentine and Pappantoniou was supported by the National Oceanographic and Atmospheric Administration (NOAA). The CUNY-SUNY team is currently awaiting word on a proposal for additional funding that would allow them to study more of the estuary as well as the freshwater sections of the Bronx River, running through the New York Botanical Garden and Bronx Zoo.

Promising Findings Stir Interest in More Research

The team began by studying the fish and invertebrates in freshwater sections of the Bronx River that had been previously surveyed by New York's Department of Environmental Conservation. With the NOAA funding, they became the first to focus their attention on the estuarine portions.

The data and species they have collected will be housed at Lehman's La MER facility as a repository for future studies and educational applications. These species include winter flounder, weakfish, striped bass, bay anchovy, menhaden, bluefish, silverside, killifish, striped killifish, butterfish, naked goby, northern pipefish, blue crab, horseshoe crab, shore shrimp, sand shrimp, ribbed mussels, oysters, soft shell clams, comb jellies, striped sea anemone and snails.

The nation's first maritime college, SUNY Maritime's curriculum features "Summer Sea" career training aboard Empire State IV to international ports of call as well as U.S. Coast Guard license and non-license programs. Boasting a 100 percent graduate placement rate, the College is home to the only Navy and Marine Reserve Officer Training Corps program in the metropolitan area. For more information, visit www.sunymaritime.edu. Lehman is a senior college in the City University of New York, with undergraduate and graduate degree programs in the arts and sciences, business, teaching, the health professions and other fields. For more information, visit www.lehman.cuny.edu.

From: Bronx Times
August 22, 2002

Commentary by Jack Pearce

A letter to AFS (then) President Ken Beal

To: Ken Beal

Dear Ken,

I just finished reading *Fisheries* for 2002 and wanted to say how interesting your President's Hook – "Discovering partnerships at Sea" was. Incidentally the sea mouse or "Aphrodite" is a polychaete worm (polynoidea), which is related to the penny or scale worms. They grow to be very large on the west coast and were eaten by first nation peoples in the old days.

More to the point – and more important – I greatly appreciated your view that a knowledge of these and other invertebrates is extremely important to understanding the marine fisheries, and managing them. When I first became a Federal employee I worked for Lionel (Bert) Walford in the Bureau of Sport Fisheries, Sandy Hook Marine Lab. Bert was the best fishery biologist I have ever known. His "Living Resources of the Sea (Ronald Press)" was a principal text in many college courses on marine

fisheries and illustrated the broad view of fisheries research and management that he had.

Shortly after arriving at Sandy Hook I was assigned a lead responsibility for artificial reefs, thermal additions (at the Cape Cod power plant), and effects of ocean disposal. Bert said "take a broad view, and work as you will" and "you'll gain the understanding necessary to eventually managing the fisheries in a sustainable manner!" How far sighted he was. Unfortunately the SHL was caught up in the reorganization necessary to form NOAA and much of our future thrusts were in behalf of cod and haddock with precious little opportunity to "take the broad view." We continue to pay the price.

Today key issues increasingly revolve around themes such as habitat protection and habitat improvements; introduced species and species interactive sanctuaries and reserves; limited access to stocks and habitats (reserves, closed areas); ecological replacements of over-fished species; endangered species; marine mammals; the precautionary principle; and score of even more arcane topics. For instance, the rise of genetic information in management doubles annually and yet a decade ago such techniques were rarely mentioned in the halls of bureaucracy and even less frequently taught in the Fish 001 class room. Results rarely appeared in *Fishery Bulletin*, which I edited, from 1995-99.

As we move forward toward resolving our many "tangled webs" ever more high tech studies will be commissioned, and even more basic observational studies of the associated invertebrates brought to bear on fisheries issues. I would hope that the AFS would play a greater role in ensuring that the training of geneticists, invertebrate zoologists, and other unappreciated disciplines are made a part of the fishery curriculum. Otherwise we are quite likely to be in the same "rock and a hard place" two or three decades hence.

Hope you have a great summer and cheers,
Jack Pearce

More White Marlin

White Marlin's Status Clarified

By Patricia Smith Heupel
Freedom ENC

Morehead City, NC – The National Marine Fisheries Service announced Wednesday that white marlin does not warrant threatened or endangered species status. It was good news for those concerned with both the recreational and commercial fisheries in the area. "Now the tournaments that we have here can continue and not have to work around any change in status," said Carol Lohr, Carteret County's tourism director who also sits on the boards of the Big Rock Blue Marlin Tournament and the Ducks Unlimited Tournament. "I'll have to say I'm very pleasantly surprised," said Jerry Schill, president of the North Carolina Fisheries Association, a commercial fishing-trading group.

NMFS initiated a review of the status of white marlin in December after Colorado-based Biodiversity Legal Foundation and James R. Chambers, a scientific consultant specializing in marine fish and their habitat, petitioned the agency to list the fish as threatened or endangered throughout its known range. The Endangered Species Act defines endangered species as any species in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is any species likely to become endangered within the foreseeable future. "We put together a status review team that looked at this species very carefully," said NMFS Director Bill Hogarth. "Based on the review, we determined that, although the species has declined greatly from historical levels, it is not currently at a level that warrants listing." Had white marlin been listed as threatened or endangered, it would have made it illegal to try to catch one, and NMFS likely would have implemented stricter rules for controlling incidental catches when targeting other species.

The petitioners had mainly expressed concern with incidental catches of white marlin in the commercial fisheries, already prohibited from selling the fish. In North Carolina, the long-time fishery that targets swordfish, dolphin fish and tuna would have been most affected by such a designation. "It literally would have put them out of business," Schill said.

Additionally, many sport fishing tournaments, including the Big Rock, hold a catch-and-release competition for white marlin. And white marlin can be accidentally caught instead of blue marlin. While NMFS has decided not to list white marlin as threatened or endangered, that does not mean the agency will not consider stricter management measures, said Jennifer Lee, fisheries biologist with the NMFS Protective Resources Division in the Southeast Regional Office. "This certainly isn't the end of the road," Lee said. NMFS could still consider such management measures as additional time and area closures or requiring release of recreational catches, Lee said.

From: New Bern (NC) Sun Journal, September 5, 2002

GAO questions spending on salmon

Recovery efforts have little definite success, says federal report

P-1 Staff and News Services

Federal agencies have spent more than $3.3 billion in the past two decades to help Columbia Basin salmon and steelhead runs recover – with little conclusive success, the General Accounting Office reported yesterday.

The report released by GAO, the investigative arm of Congress, raised concerns about the effectiveness of federal spending on recovery efforts and suggested better coordination among agencies is needed. "Although these actions are generally viewed as resulting in higher numbers of returning adult salmon and steelhead, there is little conclusive evidence to quantify the extent of their effects on returning fish populations," the report said.

The National Marine Fisheries Service responded: "This is an over-simplification of the state of knowledge regarding salmon-recovery efforts." The agency said scientists, for example, have documented that improvements to dams have made them less lethal to fish. GAO investigators said several factors have frustrated scientists' ability to measure success in boosting the dwindling fish runs. For one thing, the numbers of fish that return from the sea to spawn in fresh water each year is and always has been highly variable, and is influenced in ways scientists don't completely understand by weather and ocean conditions.

In addition, actions taken to help salmon and steelhead, such as restoring streams and ensuring that enough water is left in streams for the fish to live and reproduce, can take years to pay dividends, the report says. "However, federal agency officials are confident that their recovery actions are having positive effects and have resulted in higher numbers of returning adult salmon and steelhead than would have otherwise occurred," investigators reported. Investigators said it is clear that Columbia River salmon and steelhead are in deep trouble. An estimated 16 million returned annually to spawn in the mid-1800s. Over the past quarter-century the average has been about 660,000.

The costs totaled up in the report, which were not adjusted to reflect inflation, began in 1982 and lasted through last year. Nearly half the money was spent in the past five years. They account only for salmon recovery in the Columbia River Basin, not in Puget Sound. When Clinton administration in December 2000 refused to take the politically touchy step of dismantling four fish-killing dams on the Snake River, officials promised an "aggressive" program to help fish in other ways. But environmental activists have charged that the Bush administration's budget for the program falls far short of what the Clinton administration promised and amounts to a double-cross of the fish.

The report released yesterday said four federal agencies accounted for most of the money spent in the past five years. The lead spender was the Army Corps of Engineers, at $590 million. Most of that money was used for elaborate screens and bypass systems to help juvenile fish pass safely through Columbia Basin dams, the report said. The U.S. Forest Service and Fish and Wildlife Service each spent $100 million on habitat improvements and hatcheries. The U.S. Bureau of Reclamation spent about $62 million, primarily on water and habitat acquisition, the report said. Another $537 million in federal money went in the past five years to non-federal groups, mostly state and tribal governments, the report said.

A taxpayers group called the GAO report alarming. "There is really no evidence that this massive federal investment has been effective at all," said Autumn Hanna, policy analyst at Taxpayers for Common Sense, a budget watchdog organization. "We are sending billions of dollars down the river with no clear results and no accountability for how these agencies spend our money. "Continuing to federally fund this taxpayer boondoggle creates a massive long-term burden on the treasury," Hanna said.

A total of 11 federal agencies, led by the National Marine Fisheries Service, work on Columbia Basin salmon recovery, the report said. Several agencies reported weaknesses in the federal effort, including lack of a unified strategy and funding plan. Better coordination is needed to effectively implement salmon recovery measures, the report said. But by focusing only on how much money is spent, the GAO may have missed other important issues, said Wendell Wood of the Oregon Natural Resources Council, a conservation group that supports salmon recovery efforts. "How much is an individual salmon worth? We can ask that question both economically and philosophically," Wood said. "In dealing with the Klamath Basin we want real recovery, not money spent on spinning wheels."

Although no species has fully recovered since the federal effort began two decades ago, none has become extinct either, Wood said. "Yes, we've spent this money. We haven't lost any species but certainly haven't recovered them," he said. "This speaks to the fact that in our political system we solve problems with money, not with restoring habitat."

Submitted by Bernard Skud

From: Seattle Post-Intelligence, August 27, 2002

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American Institute of Fishery Research Biologists

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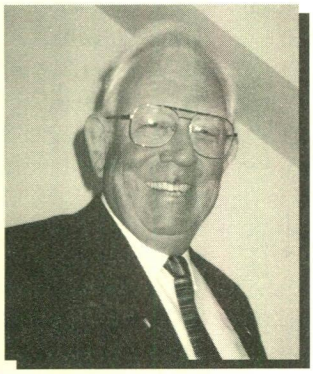
Message from the President



Dear Members, Fellows and Emeriti of AIFRB: First, let me thank you for the honor of being elected to serve as your President for the next three years. I hope you find me worthy of your trust to effectively carry out the obligations and responsibilities of the office. I can only assure you that I intend to give it my "best shot". Let me also say that we owe a great debt of gratitude to your outgoing President, Gary Sakagawa, and his team of officers and committee chairs/members for their dedicated and effective service during a time of great challenge for the Institute. As you know, elections inadvertently slipped out of "sync" and Gary graciously volunteered to serve an additional year in office until things could be put "back on track" in accordance with the Bylaws and Procedures Manual. Among other things, it is my intent to do just that.

As has occurred in prior years, much of the discussion at the recent Board of Control meeting in Baltimore, MD, focused on the current health of the Institute. Based largely on those discussions, it is my opinion that the Institute, along with many other professional organizations, is suffering from "wasting disease", i.e., little to no new-member recruitment, and reductions in current membership; at best, our membership remains static. Some of you may not be as concerned about growing the Institute as I am but, without such growth, I think the future viability of AIFRB as a professional organization is seriously threatened. Why is it that we are experiencing recruitment failure and increased out-migration of some of our cohorts? Let me share some of my personal views with you, and what I intend to try to do to reverse the declining trend and rebuild the organization. I intend to make this the major objective of my tenure.

In spite of the fact that AIFRB has been in existence for nearly 50 years, the Institute is little known, even among professional fishery biologists. Why? I believe it is because we have paid insufficient attention in promoting, advertising and marketing ourselves in a highly competitive marketplace. We need to start "blowing our own horn" more loudly, frequently, and forcefully. We need to articulate more clearly who we are, what we are, and why we are, and be better prepared to answer questions from current and prospective members such as "Why should I join? Why should I remain member/fellow? What does AIFRB have to offer that AFS and other professional societies do not? In what ways does AIFRB differ from them?" In other words, when asked, we need to be able to clearly answer "What's in it for me?" If we can't do that, we had better reassess our very existence. To address these concerns in part, I plan to establish two "ad hoc" committees in the very near future, one a promotion/marketing/advertising committee, and the other a member recruitment/retention committee, to develop and recommend actions and strategies to address these issues. I have some ideas of my own I plan to share with them. As soon as these committees are formed, I will provide you with the names and addresses of the chairs and would hope that you would also share with them some of your own ideas and recommendations.

In the meantime, there is much that we, the current members, fellows and emeriti can do to assist in this effort, and, in that regard, I am asking for your help and cooperation by committing yourself to the following:

Make it your personal responsibility as a current Member, Fellow, or Emeritus of AIFRB to recruit ONE, just ONE, new member to AIFRB before August 1, 2003. Include and display your current AIFRB affiliation and status (i.e., Member, Fellow, Emeritus) among the credentials, which accompany your name on every piece of professional correspondence, and personal identification you can think of (e.g., business stationery, business cards, authorships, etc.). Make certain that folks who should know, do know, that you are a Member, Fellow, or Emeritus of AIFRB. Talk up AIFRB every chance you get. Tell other appropriate persons about the organization. Get them interested in any way you can. Offer to provide them with information that explains what the organization is all about.

I may be your current President, but you, the Members, Fellows, and Emeriti are the Institute. I can't do it alone; I need and am asking for your help to accomplish the objectives outlined above, and I need all I can get. Thank you.

My e-mail address is dickschaef@aol.com. I welcome, and am always open to receiving, the benefit of your ideas, suggestions, and counsel as to how we can make AIFRB a healthier and more vibrant organization that can better serve the needs of its membership. Please don't be shy.

Sincerely
Dick

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

Too Few Fish Scientists? A Solution: Fewer Fishery Regulations!

Recruiting Fishery Scientists: Workshop on Stock Assessment and Social Science Careers

By the: Ocean Studies Board; Commission on Geosciences, Environment, and Resources;
National Research Council
Executive Summary

The National Marine Fisheries Service (NMFS) employs many fishery scientists with diverse skills. The agency finds that the supply of fishery biologists is adequate to meet most of its demand. However, increasing demands on the agency to understand fish populations and the social and economic conditions in fishing communities have created a need for additional experts in the fields of fisheries stock assessment and social sciences.

NMFS has developed plans for meeting its anticipated staff needs in stock assessment and social sciences and asked the National Research Council (NRC) to convene a workshop to discuss the plans and suggest other actions the agency might take to ensure an adequate supply of experts in these fields. Approximately 30 individuals gathered in Woods Hole, Massachusetts on July 17, 2000 under the auspices of the NRC's Ocean Studies Board to discuss NMFS' plans. This document summarizes the presentations and discussions at that one-day workshop. No attempt was made to reach consensus among the participants; thus, the suggestions recorded in this summary represent the personal views of workshop participants, as summarized by NRC staff.

Information was presented by NMFS at the workshop about their need to hire additional individuals in stock assessment and social sciences. NMFS proposed several actions to boost recruitment and retention of NMFS employees, including: developing targeted recruitment programs and cooperative arrangements with universities; enhancing continuing education opportunities for NMFS employees; increasing recruitment of individuals from related fields, increasing diversity; and building capacity in minority-serving institutions.

A number of bottlenecks, differing by institution, constrain enrollment in graduate schools. At the most basic level, some universities do not receive enough applications from individuals with relevant skills who can meet their entry requirements. In some cases, universities cannot provide financial support at the beginning of a student's graduate education, even though such support could be forthcoming later when the student possesses greater skills that could be applied to his or her advisor's research projects. In other universities, both funding and qualified applicants are available, but either the number of faculty or the infrastructural support limit the expansion of fisheries education programs. Foreign students often bring financial support with them and can surmount the other bottlenecks, but are ineligible for employment by NMFS and other federal agencies after graduation until they become permanent residents or U.S. citizens.

The supply and demand situation differs for stock assessment and social scientists. For stock assessment scientists, NMFS is the primary employer and demand is already large relative to the total supply. NMFS' anticipated expansion in this area exceeds the present capacity of university programs. On the other hand, NMFS is a minor employer of social scientists, thus, even relatively large changes in NMFS hiring decisions would add only a few slots and have a relatively small effect on the overall pool of social scientists available. NMFS' anticipated expansion in this area could probably be accommodated with little difficulty. A caveat, however, is that relatively few social scientists focus on fisheries and thus would require some persuasion to enter the field and time to learn the nuances of fishery issues.

Some suggestions for reducing the total demand for qualified scientists (including those at the Ph.D., Master's, and Bachelor's levels) may include (1) decreasing the regulatory requirements for fisheries, (2) managing more cautiously (e.g., setting lower total allowable catches) so that less information and analyses are needed, (3) developing and implementing management methods that require less stock assessment and social science advice, or (4) increasing technological capabilities for performing analyses without increasing staff levels. Another way to reduce the demand for stock assessment and social scientists within NMFS – and possibly total demand – would be to contract out a greater percentage of stock assessment and social science analyses to universities or private consultants.

However, most of the workshop discussions focused on ways to increase the supply of stock assessment and social scientists in the event that NMFS receives funding for its plans. Workshop participants considered both traditional and more innovative approaches. Traditional approaches included increasing the availability of graduate and post-doctoral fellowships, funding faculty positions in universities, sponsoring programs to reach undergraduates, placing NMFS employees in academic institutions, and disseminating information about career and employment opportunities more broadly. NMFS already is using many of these approaches and has made progress in targeted graduate fellowships for stock assessment science and fisheries economics, and in offering NRC and other post-doctoral fellowships to bring new individuals into NMFS laboratories. Many participants felt that NMFS could make additional progress using these traditional approaches.

As suggested by some participants, the most obvious approach to attract more stock assessment and social scientists to

NMFS would be to offer higher salaries for individuals with these specialties. This is a particular need for stock assessment scientists because their quantitative skills enable them to find work in other, more lucrative, professions. If salaries cannot be increased to competitive levels, non-monetary incentives could be offered to make up for the salary differences. Examples include travel to professional meetings, support for individual career development, funding and release time to conduct research, and exposure to national-level policy and projects.

Some of the shortfall in qualified employees can be met by hiring individuals from related fields with similar skills, but these individuals often require additional training to acquaint them with problems specific to marine fisheries. As an alternative, intensive retraining of qualified staff might help reduce the current shortfall.

Other less obvious, but potentially productive, approaches to meeting NMFS staffing needs could include working through scientific societies to find individuals in the academic or consulting communities who could fulfill NMFS' analysis needs, employing foreign scientists as guest researchers, nurturing applied mathematical ecology and population dynamics programs in universities, and sponsoring programs to reach high school students in an effort to influence their college careers.

For the full report contact: National Academy Press, 2101 Constitution Avenue, NW, Box 285, Washington, DC 20055 800-624-6242, 202-334-3313 (in the Washington metropolitan area), http://www.nap.edu

Research Assistance Awards: 2002

The Research Assistance (RA) Award established in 1986 is offered annually to AIFRB graduate students and other Associate members to support travel expenses associated with professional development. The RA provides a maximum award of $350 towards the opportunity to present results of an original paper or research project of merit at scientific meetings, or to conduct research at distant study sites. All AIFRB Associate Members in good standing are eligible. An individual may receive two awards in a lifetime.

Three AIFRB associate members received $350 awards in 2002. The award recipients, their affiliation, sponsor and meeting attended are listed below.

2002 Research Award Recipients

Ms. Somjintana Tungkawachara of the Oregon State University Seafood Laboratory presented the paper entitled "*Interactive Effect of Salt Concentration and pH on Enzyme Activities in Pacific Whiting Fish Sauce*" at the June 2002 International Food Technology Annual Meeting in Anaheim, California; **Mr. Steven J. Cooke** of the University of Illinois program in Ecology, Evolution and Conservation Biology will present the paper entitled "*Energetics of Synoptic Centrarchid Fishes Across a Parental Care Gradient*" in January 2003 Canadian Conference for Fisheries Research in Ottawa, Ontario, Canada; **Mr. Kelly S. Boyle** of California State University at Fullerton will travel to Santiago, Chile, to work with Professor F. Patricio Ojeda and his extensive specimen collection at the Pontificia Universidad Católica de Chile on the research paper entitled "*Comparison of Feeding Guild Structures and Ecomorphology of Intertidal Fishes from California and Chile: a Measure of Community Convergence*".

Submitted by: Jerald Ault

Editorial comment: Another food scientist?

With ample respect and admiration for the work of Jerald Ault and his committee and for the intellectual prowess and accomplishments of Ms. Tungkawachara, it is the position of the Editor of Briefs that food scientists are not, by the wildest stretch of imagination, fishery biologists. Food scientists do not meet the criteria for being a fishery biologist as described in the bylaws and are thus not eligible for membership in the AIFRB or to receive a research assistance award. The Board of Control was remiss in not clarifying that position to the Research Assistance Award Committee. Editor.

Northern California District offers exciting food, exhilarating information

On October 24, 2002 the Northern California district met at Ping's Mandarin Restaurant, at the first dinner/meeting of the season. Daniel Logan and his colleagues from the National Marine Fisheries Service presented the latest information on the following subjects: Daniel Logan – Changes in Permitting for Research on ESA – listed Salmonids; Brian Mulvey – San Francisco Bay Subtidal Habitat Goals Project (including oyster restoration project); Leah Mahan – NOAA Habitat Restoration Projects and Funding Opportunities; Natalie Consentino-Manning – New Invasive Species in San Francisco Bay and Mechanisms for Their Spread.

Submitted by: Tom Keegan

Is your district not meeting? If so, kick your director in the shins and point out the Northern California example. Editor.

Three Giants Depart

George J. Eicher

George J. Eicher passed away on August 23, 2002, at the age of 85. George was born in Bremerton, Washington, graduated from Bremerton High School, and died in Portland, Oregon.

George Eicher attended Washington State University in 1936 (Wildlife Management), Utah State University in 1938 (Wildlife Management), and Oregon State University 1938 to 1941 (B.S. Fisheries and Wildlife). He also attended Arizona State University in 1944 as a graduate student and lecturer, and the University of Washington between 1947 and 1956 as a graduate student and lecturer.

In 1943, he joined the Arizona Game Department as Chief Fisheries Biologist. He engaged in research and management of Arizona's game fish, mainly trout and warm water species. He published studies on hatchery pathology, lethal alkalinity, and aquatic weed control. Subsequently, from 1947 to 1956, he was Chief of Salmon Research in the Bristol Bay area of Alaska for the U.S. Fish and Wildlife Service. He was a pilot and developed aerial methods of quantifying spawning salmon populations and pioneered counting of upstream migrant salmon from streamside towers. He participated in the design and supervised construction of a fish ladder over Brooks Falls in 1949 that has passed up to 300,000 salmon annually.

Mr. Eicher was recruited by Portland General Electric in 1956 as Chief Biologist. He provided conceptual design for fish facilities in the Clackamas River and Deschutes River systems in Oregon. In 1972, he became Manager, Department of Environmental Services of PGE wherein he directed environmental studies for nuclear and coal fired power plants as well as hydroelectric facilities. While at PGE and later in his own firm, George consulted for a large number of utilities, engineering firms, and similar organizations in the United States, England, Ireland, Scotland, and Australia. George authored over 60 papers in the field of fisheries and over 100 feature articles for outdoor, trade, and semi-scientific magazines. He also wrote and published a book on environmental departments and the chapter of fish passage at dams for the book "A Century of Progress in Fisheries" published by the American Fisheries Society.

Mr. Eicher was a long-term member of numerous organizations, including the Association of Power Biologists, Fellow of the International Academy of Fishery Scientists, The American Institute of Fishery Biologists, and the Explorers Club. He was a member of Wildlife Society, and The Fishery Society of the British Isles.

As an active member of the American Fisheries Society, George was an Honorary Member of the Society after his retirement, and he served as President of the Society in 1964-65. George will be remembered for his long experience in fisheries in the Pacific Northwest, his ability to bring groups together, and his mentoring ability for both young and experienced biologists. George never really retired and was always available for advice or to provide his expertise on a project.

George married his wife, Patricia, in 1951, and is survived by her and a son Kenneth of Portland. Another son George C. Eicher passed away in 1992.

Submitted by: Richard Craven

Hugh R. MacCrimmon

Hugh R. MacCrimmon, 79, former professor and researcher at the Department of Biological Sciences, University of Guelph, Canada, passed away August 17, 2002, from Alzheimer's. Raised in Hamilton, Ontario, MacCrimmon completed his Ph.D. in Fisheries at the University of Toronto in 1949, and was a Fellow of the Society of Antiquities (FSA, Scotland).

Dr. MacCrimmon began his career as a biologist for the then Ontario Department of Lands and Forests in Maple, where his ten years of work piqued his interest in the fisheries of the Lake Simcoe area. This was followed by 31 years as a Professor at the University of Guelph. During these years, he taught many courses in fisheries and environmental issues and guided more that fifty graduate students to their masters and Ph.D. degrees. These students, including several from Asia and Africa, now hold prominent positions in research and teaching across Canada and beyond.

Professor MacCrimmon's research interests led graduate students to complete lab and field investigations on brown, brook and rainbow trout in the Owen Sound and Guelph regions of Southern Ontario. Other students completed their studies on populations of smallmouth bass, rainbow smelt, emerald shiner and other species in Lake Simcoe and its tributaries. MacCrimmon's interest in the impact of light on the developmental behavior of fishes led to studies on several of the above noted salmonid species and the smallmouth bass. Later, research encompassed zoogeography of salmonid species, ecotaxonomy of freshwater fishes, comparative ecology of stream salmonids, and bioaccumulation and biomagnifications of mercury in an undisturbed Precambrian Shield watershed – to name but a few. These studies led to numerous papers in the *Journal of Fisheries Research Board of Canada, Canadian Journal of Zoology, Journal of the American Fisheries Society* and related publications. The freedom he gave his graduate students often led to triumphs beyond initial expectations. He never seemed to have difficulty in locating financial and other resources needed to support their research interests both in the field and in the laboratory.

Graduate students were welcomed into the MacCrimmon home just south of Guelph. I recall one student get-together there when our professor took great delight in demanding that each of us try some of his newfound delicacies in order to join the graduate fraternity. The chocolate-covered ants were fine but the taste of dried silkworms lingered for years. Memories of his warm hospitality, however, are enduring. It was sometimes thought that participating in Scottish country dancing was also a required necessity.

An interest in coldwater aquaculture provided the opportunity for MacCrimmon to travel to 22 countries where he lectured, consulted, and gathered information for his publications on the distribution and introduction of several native North American species. He authored or co-authored several books and chapters in books including: "The Fisheries of Lake Simcoe," "Rainbow Trout in the Great Lakes," "The Carp in Canada," "The Blackbass in America and Overseas," "Animals, Man and Change, Alien and Extinct Wildlife of Ontario" and "Fisheries for Charrs." In addition, he produced various research publications and contractual reports, notably "Freshwater Aquaculture in Canada," and others dealing with yellow perch, rainbow smelt, Atlantic salmon, and mercury uptake by sport and forage fish. Throughout his career, Hugh MacCrimmon had a strong interest in the fish and fisheries of the Great Lakes basin.

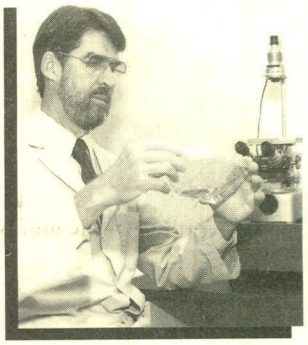
MacCrimmon was a member of the American Fisheries Society for many years, President for two years, and attended many of its conventions where he presented several papers and participated in many symposia. He was also a Fellow of the American Institute of Fishery Research Biologists.

After retirement in 1989 from an active university career, MacCrimmon continued with his consulting work visiting Costa Rica, Mexico, and Sweden. But it was his great interest in all things Scottish that took him back to his ancestral home on the Isle of Skye where he developed a museum called "The Piping Heritage Centre". Whether it was music or dancing, Robbie Burn's dinners, genealogy, clan events or Scottish colloquia, he was hooked on the Scottish. He also served as president of Clan MacLeod Societies of Canada for six years.

MacCrimmon leaves his wife Irene, son Ian and daughter Carol and six grandchildren all of whom live within 30 miles of his Guelph home. Gifts in Hugh's memory may be made to the Alzheimer Society or to Save the Children-Canada.

Submitted by: Harvey Robbins

Dr. Kenneth Edward Wolf



Dr. Kenneth Edward Wolf, 81, died on Thursday, October 31, 2002, in Winchester (Virginia) of complications associated with Parkinson's disease. Ken was born on October 22, 1922, in Chicago. He was the son of the late Frank A. and Margaret Zeigler Wolf. His wife Elizabeth "Betty" Catherine Johnstone Wolf, whom he married August 22, 1948, died on January 10, 2001.

Dr. Wolf was a 1939 graduate of Saint Rita High School in Chicago and following military service he received his Bachelor's Degree in Zoology, and his Master's Degree and Doctorate in Fisheries and Wildlife from Utah State University. He served in the Civilian Conservation Corps in Jordan Valley (Oregon) and was discharged as a first lieutenant in 1946 from the United States Army, where he served in the American theater.

Dr. Wolf's research career began in 1954 at the United States Fish and Wildlife Service's National Fish Health Research Laboratory (formerly the Eastern Fish Disease Laboratory) in Leetown (West Virginia). He retired as a senior research scientist in 1986. During his 33-year career, his seminal work in fish diseases started with the development of the first continuously cultivated fish cell culture (the RTG-2 cell line), which enabled researchers to study fish viruses *in vitro*, and culminated with his discovery of a previously unrecognized life stage of the parasite *Myxobolus cerebralis*, which causes Whirling Disease in trout and salmon.

Dr. Wolf was instrumental in establishing the Leetown laboratory as an internationally renowned facility for teaching various aspects of fish disease. Dr. Wolf was colleague, mentor and friend to a countless number of individuals throughout the world. Ken published his comprehensive textbook on fish virus diseases in 1988, and wrote or co-authored more than 170 scientific manuscripts and book chapters. He received the United States Department of Interior's Meritorious Service Award in 1976 and its Distinguished Service Award in 1978. He received the American Fisheries Society S. F. Snieszko Distinguished Service Award in 1981, Trout Unlimited's Distinguished Service Award in 1995, and the American Institute of Fishery Research Biologist's Outstanding Achievement Award in 2001.

With sadness, family and friends mourn the passing of this man who was respected professionally by his colleagues for his many achievements and excellence in research, He was particularly known for his sincerity, kindness, humor, and perfection of hobbies, which included his great passion for growing orchids. We grieve his departure, but cherish his memory.

Ken is survived by his three sons; Mark Edward Wolf of Baltimore (Maryland), Gregory Frank Wolf of Preston (Maryland), and Anthony Kenneth Wolf of Toms Brook (Virginia); by his half sister Renee Emily Wolf of West Sedona (Arizona); and by his four grandchildren. At the request of the family, a memorial service was held on Saturday, November 9, 2002, at the National Fish Health Research Laboratory in Leetown. Memorial donations may be made to the American Parkinson's Disease Association, Inc., 1250 Hylan Boulevard, Suite 4B, Staten Island, NY.

Submitted by: Frank Panek

Bob Tasto Retires

In a celebration held November 2, 2002 at the Stanford Park Hotel, Menlo Park CA, friends and co-workers saluted the retirement of Bob Tasto from the California Department of Fish and Game.

Three Important Meetings

II International Congress on Marine Science and Technology "Oceans III Millennium"

The first edition of "Oceans III Millennium" was held in Pontevedra (Spain) in April 2001, with the participation of 350 scientists, 140 oral presentations were made, as well as 47 posters. In April 2003, we will be holding the 2nd edition of "Oceans III Millennium" on the campus of the Universidad de Alicante Congress on Marine Science and Technology. As on past occasions, we are once again counting on your valuable professional and personal collaboration. Above all, we ask you to help out in these ways: (1) Please consult our conference website and give us your opinion of it, www.fomar.org; (2) Please use your e-mail address list to pass this letter on to colleagues (Spanish or others) who you feel would be interested; (3) If possible, please include a link to "Oceans III Millennium" at your website, www.fomar.org.

By helping us out in this way you will be making a significant contribution toward achieving the greatest possible participation in "Oceans III Millennium". Many thanks and our warmest regards, Manuel Catalán Pérez de Urquiola, Chairman of the Scientific Committee of Oceans III Millennium; J. Enrique Lechuga Serantes, Chairman of the Organizing Committee of Oceans IR Millennium.

Propagated Fish in Resource Management: Final call for papers

December 1, 2002 is the Deadline for Titles and Abstracts for Paper/Poster submissions for the Symposium on Propagated Fish in Resource Management Symposium that will be held June 2003 in Boise, ID

Details on all aspects of the Symposium, including subject areas for papers and posters, can be found at the website: http://www.fishbiologycongress.org/pfirm. Vince Mudrak and Gary Carmichael, Symposium Chairs.

Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems

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New York Releases American shad larvae in Susquehanna

For the fist time in 172 years, American shad returned to the Susquehanna River's headwaters in New York this spring. They didn't come by river: The larvae came by truck from a Pennsylvania hatchery. Nonetheless, biologists hope the 250,000 larvae released this spring will remember where they came from after they migrate to the Atlantic Ocean this fall, then swim back on their own to spawn in four or five years.

"It's a start," said Richard St. Pierre, Susquehanna River coordinator for the U.S. Fish and Wildlife Service. "These are the first larval shad to see the New York part of the river since about 1829." That was the year before a dam was completed across the river at Nanticoke, a small town near Wilkes-Barre, PA, to supply water for a canal. That dam, 166 miles upstream from the river's mouth, ended the shad run to New York, where it had supported an active fishery. Shad once swan 444 miles upstream in the Susquehanna, all the way to its headwaters in Otsego Lake at Cooperstown, NY, where in 1789, an early run of shad and herring was credited with delivering the fledgling settlement from starvation. Although the dam – and the canal – are long gone, other, bigger dams blocked the river, so shad never made it back to New York. Now, with passages built at major downstream dams, interest has grown in trying to get the fish all the way back upstream, prompting New York state officials to draft a multiyear stocking plan. "Our intention is to stock a million fish a year there for at least the next five years," St. Pierre said.

This spring's stocking in the Susquehanna and a tributary, the Chemung River, was carried out by the New York State Department of Environmental Conservation in cooperation with the Susquehanna River Basin Commission, which manages water use in the river. With this year's effort by New York, all of the states where shad once swam in the watershed are now participating in restoration efforts. (Shad were never resident to West Virginia, where the route is blocked by Great Falls on the Potomac River.)

American shad are anadromous fish, spending most of their lives migrating along the Atlantic Coast, but returning to their natal streams, starting about age 4, to spawn. Shad restoration has focused on constructing fish passages at dams and removing other barriers to migration; improving water quality; restricting fishing pressure; and rebuilding the stock with hatchery-reared fish. All released larvae are treated with a dye that marks the fish's ear bone, so biologists can identify hatchery fish – and which river they came from – in the future. Shad once supported the most valuable commercial fishery in the Chesapeake Bay, but their numbers dwindled so low that fishing has been banned in Maryland since 1980, and in Virginia's portion of the Bay since 1994. Also, the Atlantic States Marine Fisheries Commission, which regulates migratory species along the coast, is phasing out shad fishing in the ocean as well.

Hatchery programs were still under way around the Bay in June, although it appeared that shad stocking efforts would decline somewhat from the record 31 million larvae placed in the water last year. A series of technical problems at the Pennsylvania Fish and Boat Commission's Van Dyke Shad Hatchery on the Juniata River resulted in only about 1 million shad being stocked by mid-June. Normally, the hatchery averages about 10 million annually.

Elsewhere around the Bay, biologists reported poorer than normal survival among eggs gathered from returning shad for use in hatcheries. Jim Cummins, a biologist with the Interstate Commission on the Potomac River Basin, theorized that reduced egg viability may have been caused "physiological confusion" in the fish as a result of this year's "reverse spring" in which hotter than normal weather in late April was followed by a colder-than-normal May.

Still, outside the Susquehanna, almost all of the other rivers were able to produce enough eggs to meet their annual stocking targets, although most were stocking below last year's level. Basin wide, it appeared that 20 million to 25 million shad were likely to be stocked. Besides the Pennsylvania and New York stockings, Virginia officials placed 8.8 million larvae in the James River, and 3.3 million in the Pamunkey, where the Pamunkey Indians also stocked more than 3 million. The Mattaponi Indians stocked more than 3 million in the Mattaponi River as well.

Maryland efforts were still under way, but biologists expected to stock between 2 million and 3 million American shad, as well as millions more of their smaller relative, the hickory shad. Efforts led by the Interstate Commission on the Potomac River Basin stocked about 1.5 million in that river. Around the Bay, officials reported strong shad runs – Virginia biologists said their run may have been the best in nearly 30 years – a payoff from nearly a decade of intensive stocking efforts in all major tributaries.

Likewise, in the Upper Bay, large numbers of shad – and bigger shad – were reported, said Dale Weinrich, a fisheries biologist with the Maryland Department of Natural Resources. Surveys taken on the Susquehanna River below the Conowingo Dam on some days were catching as many as six large shad weighing between 4.5 and 6.5 pounds, he said. In previous years, it was unusual to see two shad that size in a single day.

Maryland has been stocking both American and hickory shad in the Patuxent and Choptank rivers since the mid-1990s and recently launched stocking efforts in the Nanticoke River in conjunction with Delaware. In the Patuxent River, where the state's stocking efforts began, surveys indicate that more than 10 percent of the juveniles are non-hatchery fish – a sign that fish released early in the program are now beginning to return to the river and spawn on their own.

Nowhere, though, does shad restoration face more challenges than on the Susquehanna River, which once boasted the largest shad spawning area on the East Coast. Four large hydroelectric dams built nearly a century ago in the first 80 miles of the river shut the door to migration. The largest – Conowingo Dam – is only 14 miles from the Bay. Stocking efforts began on the river in the 1970s, and since 1991 fish passages have been built at all four dams to reopen the river. This year, 108,000 fish passed the Conowingo Dam, which was below last year's record of more than 193,000 fish, but was still the third best year at the dam. But only a fraction of those fish – 17,522 – passed Holtwood, the next dam up the river.

St. Pierre blamed the low number of fish passing Holtwood on high river flows in May. Because Holtwood is a low dam, water easily spills over the top rather than predominantly at the fish lift. With water flowing over the dam everywhere, fish have trouble finding the current that leads them to the fish passage. "We've said this time and again," he said. "High flows mean less fish."

Through mid-June, 11,500 fish had made it past Safe Harbor Dam, and 1,500 past the York Haven Dam. Between York Haven and New York, the only remaining obstacle in an inflatable rubber dam at Sunbury, PA, which is inflated before Memorial Day to create an impoundment for boaters. A passage around the Sunbury dam is expected to be completed in 2004 – in time for the fish released in New York this year to make it back to spawn.

From: Bay Journal, July-August 2002

Environmental Groups Sue to Stop Overfishing of Large Coastal Sharks

Two environmental groups recently sued the federal government in an effort to prevent overfishing of large coastal sharks in U.S. waters.

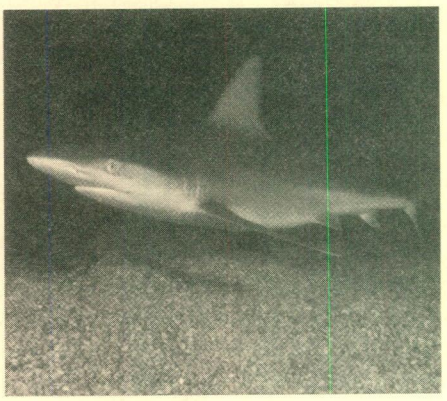
Represented by Earthjustice, the National Audubon Society and The Ocean Conservancy filed suit against the National Marine Fisheries Service (NMFS), claiming the agency has failed to halt overfishing and rebuild large coastal shark populations in the Atlantic and Gulf of Mexico based on the best available science. The groups also claim that NMFS illegally left public comment and participation out of the fisheries management process and allowed outside parties to make key management decisions.

"Once again, fishery managers have failed to provide sharks with the protection their biology warrants," commented Sonja Fordham, shark conservation specialist at The Ocean Conservancy. "Instead of defending its science-based proposals to halt overfishing, the government allowed the future of these imperiled species to be decided behind closed doors. We need to manage them in a precautionary way for the public good."

Slow-growing Atlantic large coastal sharks have been seriously overfished in recent decades. Based on a 1998 assessment by leading shark experts, NMFS announced in 1999 a reduction in the commercial shark quota to stop overfishing and begin rebuilding. But due to lawsuits by the shark fishing industry, this quota never took effect. In 2000, NMFS settled one lawsuit by suspending the quota cuts and subjecting the 1998 assessment to peer review. In December 2001, based on the opinions of four review panel members – two of whom had no shark expertise – the agency allowed the previous, excessive catches for the 2002 season.

The environmental groups are calling for NMFS to reduce large coastal shark quotas to the 1999 levels. In addition, they have asked the court to prevent NMFS from relying on the peer reviews because the agency circumvented applicable laws by granting decision-making authority to outside individuals.

From: Blue Planet, Spring 2002



Along with blacktips, sandbars (top) make up the majority of sharks at issue in the lawsuit.

Maryland tries to stop snakehead threat

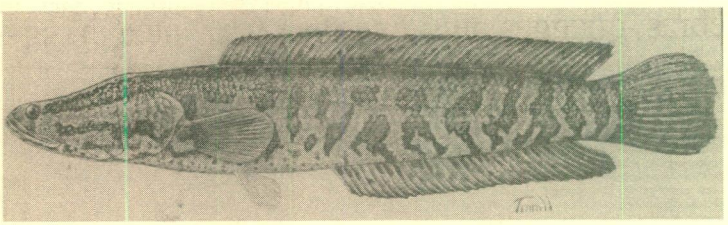
Early on a Sunday morning in August, Maryland biologists began the task of poisoning a pond to save it from the snakehead. First, they applied an herbicide, which slowly began killing the vegetation. By Wednesday, the lily pads had begun to turn brown in the 4-acre pond behind a strip mall in Crofton. As the plants began decomposing, they would begin starving the water of oxygen. After the heavy vegetation died back, biologists planned to deliver the coup de grace: rotenone.

The poisoning was to bring to a close the bizarre saga of the northern snakehead, a carnivorous fish native to China that can grow 3 feet long. Scientists worried they could wreak havoc if they established populations outside the pond because they voraciously feed on smaller fish.

A man placed two 14-inch fish, a male and female, in the pond two years ago after they outgrew his aquarium, not realizing the threat they posed in the wild. The fish went on to produce hundreds of offspring that threatened not only the pond, but other waterways because the fish has the ability to survive on moist land for several days, where it can slither to nearby waterways.

A 12-member state scientific panel concluded the only option to control the fish was to poison the pond before they could spread. The incident led Interior Secretary Gale Norton, who said the fish "are like something from a bad horror movie," to propose a ban on the importation and interstate transportation of 28 species of snakeheads. About 17,000 of the fish were imported into the United States between 1997 and 2000. The fish are widely available for both aquariums and food. The action can do nothing about fish already here.

In August, the Pennsylvania Fish and Boat Commission acted to ban the possession or sale of the snakehead, and the Virginia Department of Game and Inland Fisheries was considering similar action. Meanwhile, Maryland environmental officials were considering ways to prevent snakeheads and other



Thirteen states currently prohibit the possession of live snakeheads. Illustration courtesy of U.S. Geological Service

problematic fish from entering the state – and to speed up their ability to take action if they do.

A panel of scientists assembled to advise the state on dealing with the fish suggested that the Department of Natural Resources be given more authority to temporarily go onto someone's property to resolve such a problem – a power given in some states that frequently deal with the introduction of exotic species, such as Florida. Such a change would need the approval of the General Assembly. The effort to eradicate the snakehead was initially delayed when the owners of the pond and two adjacent ponds did not grant permission to the DNR to poison it. "From the principle of biological control, it's prudent to act as quickly as possible," said Donald Boesch, the head of the panel and director of the University of Maryland Center for Environmental Science.

The panel also advised that Maryland establish a process to make it illegal to possess a nonnative species of fish that is deemed potentially injurious to the natural environment, such as the snakehead. Thirteen states currently prohibit the possession of live snakeheads. The panel will issue a formal report by early September.

-The Associated Press contributed to this report

From: Bay Journal, September 2002

Gulf Sturgeon Win Protection

By Pat Joseph

Score one for the Endangered Species Act. In a legal victory for Earthjustice, which filed suit on behalf of the Sierra Club, two federal agencies – the U.S. Fish and Wildlife Service and National Marine Fisheries Service – announced on June 7 a court-ordered proposal to designate critical habitat for threatened Gulf sturgeon.

Sturgeon were listed under the Endangered Species Act in 1991, but the Fish and Wildlife Service has, until now, refused to designate critical habitat despite conceding that such measures would be necessary for recovery of the species. In 2001, a federal court ruled that the Fish and Wildlife decision was invalid, clearing the path for today's announcement. Robert Wiygul, an attorney for San Francisco-based Earthjustice, hails the move. "The proposed critical habitat designation," he says, "could be far-reaching and could translate into much greater protections for endangered species. We're finally moving toward the original intent of the Endangered Species Act – to move species off the list."

The oldest living fish species, sturgeon appeared in the fossil record 200 million years ago. Gulf sturgeon, an anadromous species that can grow to be 500 pounds and live nearly 50 years, were once common in the Gulf of Mexico; however, in the 20th century overfishing, dams, and pollution all took their toll.

The proposed critical habitat designation will affect sturgeon-inhabited coastal rivers from Florida to Mississippi as well as estuaries and bays in the Gulf of Mexico. Details of the proposal remain to be worked out, but the step is still a major victory. Says Barry Kohl, conservation chair of the New Orleans group of the Sierra Club: "The sturgeon and all other species in these Louisiana river systems need protection from water pollution and destructive dredging projects. Critical habitat will be a powerful tool for citizens to protect these special places."

Four public hearings on the proposal were scheduled for August in Florida, Mississippi and Louisiana. The deadline for a decision is February 28, 2003.

From: The Planet, July-August 2002

Bush Administration Proposes to Roll Back Key Protection for Oceans

In a radical departure from previous Republican and Democratic administrations, the U.S. Departments of Justice and Defense are advocating in a federal court case that all federal and federally permitted actions that occur in vast areas of the nation's oceans are exempt from one of the U.S.'s most important environmental laws.

In response, Oceana kicked-off a grassroots campaign urging President Bush to reconsider the position regarding the applicability of the National Environmental Policy Act (NEPA) in the U.S. Exclusive Economic Zone (EEZ).

The Exclusive Economic Zone, an area larger than the continental U.S., includes all U.S. ocean water 3 to 200 miles from the coastline. The EEZ is home to rich ocean habitats that support marine mammals such as whales and seals, fish, sea turtles and other marine life. National Environmental Policy Act requires all federal agencies to conduct a thorough review of the environmental consequences of proposed actions.

From: Splash 1(2), Fall 2002

EPA Must Regulate Pesticides to Protect Salmon

Runoff May Well Be Hurting Fish

Pesticides are widely used throughout the Pacific Northwest. Unfortunately they sometimes run off into salmon-bearing waters in quantities that are potentially harmful to federally protected salmon. The EPA is required to consult with the National Marine Fisheries Service (NMFS) under the Endangered Species Act to regulate the use of pesticides likely to harm these salmon. A federal judge recently agreed with Earthjustice, finding, "it is undisputed that EPA has not initiated, let alone completed, consultation with respect to the relevant 55 pesticide active ingredients." The judge ordered the EPA to get with NMFS and take care of it. The court also found "EPA's own reports document the potentially significant risks posed by registered pesticides to threatened and endangered salmonids and their habitat." These reports showed the 55 pesticides in question were either present at dangerous levels in salmon streams or likely to be there as shown by models. Earthjustice expects these consultations to result in the removal of dangerous levels of these pesticides from the environment.

Earthjustice attorney Patti Goldman represented the Northwest Coalition for Alternatives to Pesticides, Washington Toxics Coalition, and the commercial fishermen's organizations Pacific Coast Federation of Fishermen's Associations, and Institute for Fisheries Resources.

From: In Brief, Summer 2002

California's State Fish May Get Protection

FWS to Move Forward with Listing Process

The California golden trout, the state fish, is native to only two streams: the South Fork of the Kern River and Golden Trout Creek, in the Sierra Nevada just south of Mount Whitney. Non-native trout stocked into these watersheds threaten to interbreed with and hybridize the golden trout, and livestock grazing continues to damage habitat.

In June, a federal judge in San Francisco ordered Interior Secretary Gale Norton to move forward with processes that could list the golden trout as an endangered species. The ruling comes some 20 months after the initial listing petition. In November 2001, Earthjustice sued the Fish and Wildlife Service in an attempt to force action on its petition. By law, the USFWS must decide whether or not a listing petition has merit within 90 days of receiving it. The service, however, has declined to address the golden trout case. Now, under court order, a determination must be made.

"The court's ruling reaffirms that the service must honor its obligation under the law to confront the science and determine whether our state fish is in danger of extinction and in need of protection," said Greg Loarie, attorney for Earthjustice, representing Trout Unlimited in the case.

From: In Brief, Summer 2002

Sea Urchins' Resurgence Is Good News for Mesoamerican Caribbean Reef

Early signs of recovery of long-spine sea urchin populations in the Mesoamerican Caribbean Reef have provided scientists working in the region with the first good news in decades. Long considered critical in the battle to maintain the health and wealth of the largest coral reef system in the Atlantic Ocean, the long-spine sea urchin suffered astronomical losses over the last 20 years. In 1983, an outbreak of disease reduced its population by 97 percent. Furthermore, reefs in the region have been affected by hurricanes and coral bleaching, particularly in 1998.

However, a recent World Wildlife Fund (WWF)-sponsored survey of the portion of the reef that runs along the coast of Belize showed that the sea urchin's population has increased by 38 percent since 1997. Even more encouraging are the reports and sightings of much higher sea urchin densities in some of the region's shallow reefs. This is excellent news because as one of the reef's "keystone species," the long-spine sea urchin grazes down competing algal populations, providing clean surfaces for coral growth.

The Mesoamerican Caribbean Reef system extends nearly 450 miles from the northern tip of Yucatan peninsula to the Bay Islands off the coast of Honduras, and is one of the region's greatest natural assets. Its massive structure provides an important defense against storms and coastal erosion, while the living reef and associated ecosystems support important invertebrate and fish populations.

From: Focus 24(5), September-October 2002

PA Officials Concerned Huge Catfish Could Take Over Susquehanna

Huge flathead catfish, *Pylodictis olivaris*, could eventually take over the Susquehanna River and disrupt its ecosystem, according to the Pennsylvania Fish and Boat Commission. Commission officials in July confirmed that the species recently entered the Susquehanna River. And officials are worried the predatory fish, which can reach more than 100 pounds, could cause problems for other species.

The agency is looking for the help of anglers to help control the spread of the species, which is not native to the river. "We're going to start spreading the word that we would like anglers to keep and kill all flathead catfish they catch in the Susquehanna or its tributaries, no matter what the size of the fish," said Mike Kaufmann, a commission biologist. Kaufmann said he verified that the species of catfish was in the river when he saw a photograph of one caught by Lititz resident Greg Misenko. Misenko said he caught a 15-inch flathead on July 13, near the Safe Harbor Dam. He said other men fishing in the area caught similar fish.

In Pennsylvania, flathead catfish are found in the Ohio, Allegheny and Monongahela river watersheds in western Pennsylvania. The fish are more common in the southern and midwestern portions of the country. "We don't know how they got there, just like we don't know how they got into the Susquehanna," Kaufmann said. Kaufmann said the flathead catfish are aggressive breeders. The presence of flathead catfish could significantly reduce the number of other catfish, sunfish, rock bass, smallmouth bass and other species, he said.

Anglers are not likely to kill off the flathead catfish now that they have been introduced, he said. But they can help manage them. "Just taking one flathead out of the river is going to save a bunch of other fish because a single flathead eats so much – they are truly eating machines," Kaufmann said.

From: Bay Journal, September 2002

Flatheads are recent invaders of the Cape Fear, Neuse (NC) and James (VA) rivers as well. Editor.

Missouri Decision Delayed; New Energy Report Released

The U.S. Army Corps of Engineers was expected to announce its decision on a new plan for Missouri River dam operations at the end of May. The Corps did select a preferred option, but the White House prevented the agency from announcing it publicly while discussions on the plan continue in Washington, D.C.

American Rivers continues to work with the Bush administration to ensure that the final Corps plan meets the requirements of the U.S. Fish and Wildlife Service's Biological Opinion on Missouri River dam operations. Public support for restoring more natural flows to the Missouri is strong — of the 55,000 public comments received by the Corps on its dam operation Environmental Impact Statement, 54,000 supported more natural flows for the river. Numerous major newspapers in the basin continue to editorialize in favor of restoring more natural flows and the governors of six Missouri River basin states wrote to the corps in February urging a test of more natural flows. And, according to the National Academy of Sciences, the U.S. Fish and Wildlife Service, and the Missouri River Natural Resources Committee, the science clearly points to the need to restore more natural flows to the river to stop its degradation and save imperiled species.

In early July, American Rivers and Environmental Defense held a press conference to release a new report on Missouri River power production by hydropower economist David Marcus. The report was completed in response to concerns about the potential impacts of Missouri River flow changes on power production along the river. Marcus found that if more natural flows are restored on the Missouri River, overall benefits from hydropower production on the river will increase. He also concluded that the Corps and the Western Area Power Administration greatly overestimated the potential impacts, and that concerns about impacts on riverside powerplants along the lower river are unfounded.

From: American Rivers, Summer/Fall 2002

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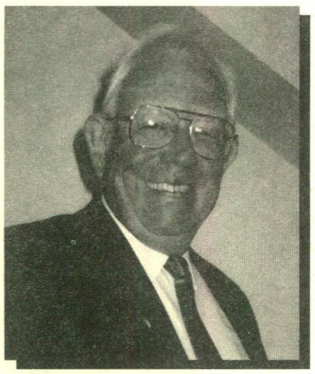


New President Begins Shaping His Program

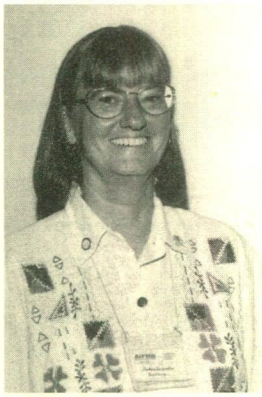
President Dick Schaefer writes:

First, I've appointed Marty Golden to chair an "ad hoc" special committee to examine the issues of member recruitment and retention, and to report back to me and the BOC at its next meeting in August with his findings and recommendations. Marty's e-mail address is marty.golden@noaa.gov. I'm certain he would welcome any thoughts/ideas/recommendations from the membership.

Second, I've appointed Gil Radonski to chair an "ad hoc" special committee to examine the issues of AIFRB "marketing" and promotion, and to report back to me and the BOC at its next meeting in August with his finding and recommendations. Gil's e-mail address is gcrgmr@clis.com. I'm certain he would welcome any thoughts/ideas/recommendations from the membership.

Third, I'm trying to locate a member/fellow/emeritus who would be willing to help Dora Passino-Reader, who is our overall "arrangements" person for our next BOC meeting in Quebec City next August, with organizing and arranging our reception. Any takers?

Keystone Fellows Lauded by SUNY



Fellow Barbara E. Warkentine honored by the State University of New York for research on fish populations in New York City area.

Two AIFRB Fellows from the Keystone District were recently recognized for their research by the Chancellor of the State University of New York at an official Ceremony at the Central Administration Facility of The State University of New York in Albany, New York on October 24th, 2002. They were Dr. James M. Haynes of the SUNY College at Brockport, New York and Dr. Barbara E. Warkentine of SUNY-Maritime College Bronx, New York.

Dr. James M. Haynes is a Distinguished Service Professor in the Department of Environmental Science and Biology at the College at Brockport. Since coming to Brockport in 1978, Dr. Haynes has been involved in over $2.5 million of externally funded research and service projects. Early in his career, with funding from the National Oceanic and Atmospheric Administration's Sea Grant program, NYS Electric & Gas, and several U.S. and Canadian fishing organizations, Dr. Haynes's research focused on the movements and habitat preferences of salmon and trout in Lake Ontario. This work, which involved numerous graduate and undergraduate research students, resulted in several peer-reviewed publications co-authored with students and helped anglers throughout the Great Lakes basin improve their harvests of stocked fish. Dr. Haynes had directed nine National Science Foundation projects, funded by the Division of Undergraduate Education, that show science faculty across the nation how to use environmental problem solving as a way to enhance the enthusiasm, knowledge and skills of undergraduates in science courses.

Dr. Barbara E. Warkentine is Professor of Biology at Maritime College. Since 1999, Dr. Warkentine has been working with colleagues at the City University of New York to study and evaluate the state of the aquatic fauna of the Bronx River. These projects have received funding from The Partnership for Parks, City Parks Foundation, National Oceanographic and Atmospheric Administration, and Wildlife Conservation Society. Dr. Warkentine's goal is to assess the population dynamics and resource utilization of the fish fauna of the Bronx River, and to understand its current and historical utilization by anadromous species (those that migrate up rivers from the sea to breed in fresh water) and the catadromous eel (which live in freshwater and go to the sea to spawn) in the region of the river south of the falls in River Park at 180th Street and Boston Road. These research efforts also focus on the extent to which fish from the north river above the fall line contribute to and influence populations below this demarcation break.

Submitted by: Joe Rachlin

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

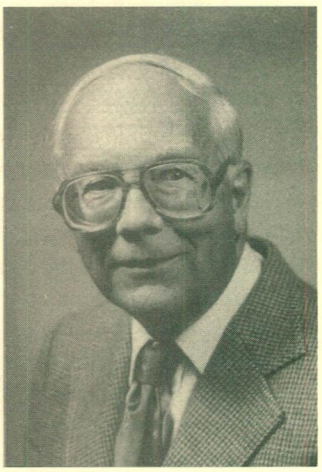
Northern California District Stays Busy

On December 18, 2002 at a meeting in the conference room at the Gulf of the Farallones National Marine Sanctuary (NMS) office at Crissy Field in the Presidio, San Francisco, the Northern California District AIFRB Past-Director Dan Howard, of the Cordell Bank NMS, showed videos of his surveys on Cordell Bank using the two person submersible Delta. He discussed habitat characterization studies, fish surveys and invertebrate assessments of the Cordell Bank. Playing second fiddle to Howard's presentation was a meal of gourmet pizza.

The District's Winter Season Banquet was scheduled for Saturday, January 18th, 2003, at The Mandarin Restaurant in Ghirardelli Square, San Francisco.

Submitted by: Tom Keegan

Founding Fellow Carlander Succumbs



Kenneth Dixon Carlander
1916-November 21, 2002

Ken Carlander and Iowa State University were synonymous. After completing military service (ever-productive, Ken even produced, while he was in service, a scientific paper on birds observed during maneuvers) and graduate research at the University of Minnesota on the fisheries of the Lake of the Woods, Ken became Assistant Professor of Zoology at Iowa State University and Leader of the Iowa Cooperative Fishery Unit. (Iowa State is home to the cooperative unit concept, a brainchild of Iowa's conservation pioneer Ding Darling). Ken remained at Iowa State throughout his active and emeritus career. By 1985, the date of his nominal retirement, he had directed programs of 34 Ph.D. graduates and 59 M.S. students (of whom 22 also completed Ph.D. programs – 12 at Iowa State).

Ken had a vital interest in encouraging fisheries research in developing countries. To that end Ken mentored numerous foreign students from, among many countries, Sudan, Liberia, Iraq, and India as well as serving as visiting professor in Egypt and Indonesia.

Ken Carlander's accomplishments in fisheries research and education, as well as his contributions to Iowa, have been recognized in many ways: selection to four scholastic honor societies; selection as a Fellow by the American Association for the Advancement of Science, the American Institute of Fishery Research Biologists, the Iowa Academy of Science, and the International Academy of Fishery Scientists; appointment in 1974 by Iowa State University as Charles F. Curtiss Distinguished Professor; appointment by Iowa governors to various councils and boards; and invitations to lecture at more than 30 universities and scientific laboratories. Ken was a member of more than 30 professional societies, serving on committees and boards of 11 and being elected President of the American Fisheries Society (1960-61), of Sigma Xi, Iowa Chapter (1963-64), and of the Iowa academy of Science (1968-69). He was presented the Award of Excellence by the American Fisheries Society in 1979 and the Distinguished Fellow Award by the Iowa Academy of Science in 1980.

None of the above, however prestigious, can convey the deep affection in which Ken was held by his students. Always calm, always understanding, always tolerant, Ken made each of us feel accepted and capable of the work expected of us. His generosity was unequalled. At least one graduate student found long after completion of his degree that a supposed assistantship from the university that had supported him and his family during tight times had actually come straight from the pocket of Ken Carlander.

And I probably ought to nominate Ken for sainthood. Finishing a hot, hot, summer Friday of electro fishing, David Behmer and I were driving the 30 miles from the Des Moines River back to Ames when a five-gallon container of strong formaldehyde solution overturned in the back of the Chevrolet station wagon assigned to the fisheries unit. The vile fluid filled the recessed wheel well in the aft floor of the vehicle. Completely saturated with fish, fish biology, heat, and the week's work, Dave and I were absolutely convinced that that formaldehyde would be overjoyed to spend the weekend in the wheel well so that it's removal could provide us with a fitting beginning to the Monday next. We did not know that Ken and Jess Muncy were planning a very early departure in that same despoiled vehicle on Monday morning for the 150 mile round trip to Fort Dodge. Nor did Ken and Jess know in the cool of their pre-dawn departure that the morning's heat would vaporize the caustic, but unsuspected and then hidden, fish preservative and force them to ride the entire distance with their heads out the windows. Ken never mentioned the incident to Dave or me.

Gene Huntsman

Partially taken from Muncy, Robert J., Kenneth D. Carlander, An Appreciation, pp. viii-xi in Summerfelt, Robert C. and Gordon E. Hall eds. Age and Growth of Fish, Iowa State University Press, 1987.

Two Fellows on Prestigious Federal Committee

Commerce and Interior Departments Select Candidates for National Marine Protected Area Federal Advisory Committee

On January 3, 2003, the Department of Commerce, with assistance from the Department of the Interior, named final candidates for the National Oceanic and Atmospheric Administration (NOAA) National Marine Protected Area Federal Advisory Committee. Required as part of Presidential Executive Order 13158 dealing with Marine Protected Areas (MPAs), the 30-person committee represents a broad stakeholder community, including scientists, academia, commercial and recreational fishermen, resource users and managers, and environmentalists.

The advisory committee's duties include providing advice and recommendations to the Secretaries of Commerce and the Interior on implementation of aspects of the MPA Executive Order. The members may establish working groups, subcommittees, or task forces as needed to fulfill the committee's goals. They also will create a scientific working group of experts in marine and ocean science fields, which will assess the conditions of natural and submerged cultural resources within the nation's MPAs. The members will serve for two or three-year terms, and will elect a chairperson from the group.

"Marine protected areas are important resource management tool's," said Commerce Secretary Don Evans. "We look forward to strong leadership from these individuals in helping us determine how best to continue our efforts, balancing conservation needs with commercial and recreational interests as we move forward to protect the marine environment for present and future generations."

The Committee will be supported by the National Marine Protected Areas Center, established by NOAA in cooperation with the Department of the Interior, as required by Executive Order. The MPA Center is charged with providing federal, state, territorial, tribal, and local governments with the information, technologies, training, and strategies to coordinate federal activities related to MPAs.

Final candidates for the MPA Federal Advisory Committee are: **Dr. Tundi Agardy,** *Sound Seas, Bethesda, Md;* **Mr. Robert Bendick, Jr.,** *The Nature Conservancy, Altamonte Springs, Fla.;* **Mr. David Benton,** *North Pacific Fishery Management Council, Anchorage, Alaska;* **Dr. Daniel Bromley,** *University of Wisconsin, Madison, Wis.;* **Dr. Anthony Chatwin,** *Conservation Law Foundation, Boston, Mass.;* **Dr. Michael Cruickshank,** *Marine Minerals, Technology Center Associates, Honolulu, Hawaii;* **Mr. Ernesto Diaz,** *Puerto Rico Coastal Zone Mgmt Program, San Juan, Puerto Rico;* **Ms. Carol Dinkins,** *Vinson & Elkins Attorneys At Law, Houston, Texas;* **Dr. Rodney Fujita,** *Environmental Defense, Oakland, Calif.;* **Dr. Dolores Garza,** *University of Alaska, Ketchikan, Alaska;* **Mr. Eric Gilman,** *National Audubon Society, Honolulu, Hawaii;* **Dr. Mark Hixon,** *Oregon State University, Corvallis, Ore.;* **Mr. George Lapointe,** *Maine Department of Marine Resources, Augusta, Maine;* **Dr. Bonnie McCay,** *Rutgers University, New Brunswick, NJ;* **Mr. Melvin E. Moon, Jr.,** *Quileute Natural Resources Department, LaPush, Wash.;* **Mr. Robert Moran,** *American Petroleum Institute, Washington, DC;* **Dr. Steven Murray,** *California State University, Fullerton, Calif.;* **Mr. Michael Nussman,** *American Sportfishing Association, Alexandria, Va.;* **Dr. John Ogden,** *Florida Institute of Oceanography, St. Petersburg, Fla.;* **Mr. Terry O'Halloran,** *hulaRez, Inc., Kalaheo, Hawaii;* **Mr. Lelei Peau,** *Department of Commerce of American Samoa Pago Pago, American Samoa;* **Dr. Walter Pereyra,** *Artic Storm Management Group, Inc., Seattle, Wash. (AIFRB Fellow);* **Mr. Max Peterson,** *International Association of Fish and Wildlife Agencies, Washington, DC;* **Mr. Gilbert Radonski,** *Sport Fishing Institute, Cape Carteret, NC (AIFRB Fellow);* **Mr. James Ray,** *Environmental Ecology and Response Shell Global Solutions (US), Inc., Houston, Texas;* **Ms. Barbara Stevenson,** *Portland Fish Exchange, Portland, Maine;* **Dr. Daniel Suman,** *University of Miami, Miami, Fla.;* **Capt. Thomas E. Thompson,** *USCG (Ret.), International Council of Cruise Lines; Arlington, Va.;* **Ms. H. Kay Williams,** *Gulf of Mexico Fishery Management Council, Vancleave, Miss.;* **Mr. Robert Zales, II,** *Bob Zales Charters; Panama City, Fla.*

Committee members were nominated by organizations and individuals. Potential members are offered membership into the committee and then must undergo a background check. These candidates were selected by a panel of experts from both agencies seeking to ensure that the committee's membership represented the broad spectrum of interested parties throughout the nation.

Marine protected areas are one of several management tools NOAA Fisheries uses to prevent decline and promote recovery of marine fish, mammal and sea turtle species that fall under the agency's stewardship responsibilities. In partnership with the eight regional fishery management councils, NOAA Ocean Service, states, fishermen, and coastal communities, NOAA Fisheries combines protected areas with other marine resource management tools to ensure a healthy and bountiful ocean for all Americans.

Feds Fish for a Definition: Radonski Speaks

By Patricia Smith Heupel
Freedom ENC

One of the most important issues federal fisheries authorities must decide is how to define a marine protected area and what criteria to use, a fisheries scientist who lives in Cape Carteret, NC said. "I have a great fear that a lot of people see using marine protected areas as a surrogate for fisheries management just cut off all fishing and the fish will come back," said Gilbert Radonski, who retired in 1994 from the Sport Fishing Institute in Washington.

While there is a strong movement in the U.S. south Atlantic region to create large refuges where no fishing – commercial or recreational – is allowed, such actions would not solve the problems, Radonski said. "It's sort of the easy way out," he said. The U.S. Department of Commerce and the Department of the Interior last week named Radonski to the National Marine Protected Area Federal Advisory Committee, which makes recommendations to the agencies' secretaries regarding a national system of marine protected areas. And Radonski believes the idea of these large, no-fishing zones is one that will likely come up, but he hopes it is not a direction the committee will take.

To protect an area there must be a clearly stated objective with rules to meet those goals, Radonski said. Closing waters to all fishing might work to bring back fish populations, if done on a large enough scale, but it would also have economic and social impacts, he said. In May 2000, President Bill Clinton signed an executive order, which the Bush Administration has retained, directing the Department of Commerce and the Department of Interior to inventory existing federal and state marine protected areas and set up a scientific center to develop the framework for a national marine protected area system. The MPA Center was also charged with coordinating the development of strategies to both enhance and expand protection of existing MPAs and to recommend new ones. "One of the major tasks is going to be to try to determine what we should, as a country, be trying to protect and how we should work to meet those goals," said Joseph Uravitch, director of the MPA Center. Federal authorities expect to find thousands of MPAs already in existence, defining them in the most general terms as areas set aside with some level of management, Uravitch said.

There are already about 10 such federally protected areas in North Carolina waters, including the USS Monitor shipwreck site and several waters in national reserve programs, Radonski said. Uravitch said it will take until the end of 2004 just to complete the MPA inventory. The advisory committee will hold its first meeting this spring to organize and decide what specific issues they want to address, he said. "It's such a new thing for the country that it's going to take a while before things get settled," he said.

From: New Bern (NC) Sun-Journal, January 7, 2003

Harold Kincaid Retires

Dr. Harold Kincaid retired from government service at the Northern Appalachian Research Laboratory, Wellsboro, PA, effective January 3, 2003.

Harold started with the U.S. Fish and Wildlife Service in the 1970's as a research geneticist in Beulah Montana, eventually working his way to Wellsboro in 1984. His vision of a fish strain database culminated in the National Fish Strain Registry, an interactive tool for managers to make stocking decisions based on performance rather than hunch.

In retirement, Harold and Ruth plan to stay in Wellsboro for the time being and spend time with their children and grandchildren. He also plans to do some consulting and perhaps travel.

Northern Appalachian Research Laboratory sponsored a retirement party on Thursday, January 16th to honor Harold.

Submitted by: Dora Passino-Reader

Editorial Comment: A clarification and expansion

Sep-Oct.

In the last issue (~~Nov.-Dec~~. 2002) after an announcement of the recipients of the Research Assistance Travel Awards, I offered the following editorial comment about one of the awards:

"With ample respect and admiration for the work of Jerald Ault and his (award) committee and for the intellectual prowess and accomplishments of Ms. Tungkawachara, it is the position of the Editor of *Briefs* that food scientists are not, but the wildest stretch of imagination, fishery biologists. Food scientists do not meet the criteria for being a fishery biologist as described in the bylaws and thus are not eligible for membership in the AIFRB or to receive a research assistance award. The Board of Control was remiss in not clarifying that position to the Research Assistance Award Committee."

Although I thought I had written the above in such a way as to direct clearly any criticism to the Board of Control, and to be almost flattering to Ault *et alii*, and Tungkawachara, at least two readers believed I had impugned one or both. So for clarity, Ault and his committee, following established precedent, did a fine job and Ms. Tungkawachara appears to be an accomplished and deserving scientist.

THE PROBLEM IS that the established precedent cannot be justified by the official policies and bylaws of the AIFRB. In the Articles of Incorporation (Institute Charter, Bylaws, and Policy Statements, Amended August 20, 2001) p. 3 Article III, Membership, "...membership shall be available to scientists of competence and proven achievement in the field of fishery biology...". In the Bylaws, pp. 7, 8, and 9, members and fellows must have "experience in the field of fishery biology" and associates must be "engaged in research concerned with the fishery sciences or engaged in a graduate degree program in fishery science", and finally in the Policy Statements, II, Criteria to Membership, p. 18, "Membership...shall be available to scientists of competence and of proven achievement in the field of fishery biology..." and IV, Declaration of Affiliation (p. 21) "limitation of our membership to professional fishery biologists".

And most importantly, the Official Policy Statements, (Section III, Educational Standards, pp. 19 and 20) clearly define fishery biology. "Although fishery biology is not independent of the other aspects, it is concerned with the biological aspects of a fishery and with maintaining and improving the production of useable fishery resources. It may be distinguished from fish biology and ichthyology by its emphasis upon the resource and its fishery rather than the organism. Fishery biology must involve knowledge of the taxonomy, biology, and environment of the fish. However, a fishery biologist puts more emphasis upon the factors affecting production rates and population dynamics, which relate to fisheries exploitation." "Fishery biology (p. 21) ....has developed theories of the effect of fishing on populations and catches....".

Given the overwhelming evidence from the official documentation of the organization can there be any doubt as to whether food scientists ought to be considered for membership in the AIFRB? If even ichthyologists and fish biologists are distinguished from fishery biologists by our official policies, can there be any justification for granting Associate memberships and Research Assistance Awards to protein chemists?

How the divergence between official policy and practice occurred is unimportant. Organizations, like continents, have tendencies to drift slowly away from fixed positions. And even more unimportant is the fact that we have been funding food scientists for a long time. A wrong precedent is still wrong despite venerable age.

There are two ways to deal with the discrepancy between official policy and practice: 1. Change the errant practices to match the policy; or 2. Change the policies to match the practices. I encourage the Board of Control to change our practices. I, for one, an extremely proud to be a member of an organization of professional fishery biologists, *sensu strictu.*

Note: As Editor I take advantage of the pages of Briefs *to air my views. As I have said many times before, as long as I am Editor, every member of AIFRB has the same access to these pages as I do. Have an opinion? Write it down. Gene Huntsman*

Effects of Fishing Symposium

The Symposium on the Effects of Fishing Activities on Benthic Habitats began November 12, 2002 in Tampa, Fla., with nearly 400 participants from around the US and the world, including Alaska, Florida, the United Kingdom, Australia, and Mexico. Convened by the National Oceanic and Atmospheric Administration (NOAA) and the US Geological Survey (USGS), in collaboration with the American Fisheries Society and the Ecological Society of America, the meeting brought together leading experts to address the pressing issues of fishing and habitat alteration that challenge managers, practitioners, and ocean scientists.

The Tuesday session featured introductions by Dr. William T. Hogarth, Assistant Administrator of Fisheries at NOAA and Dr. Charles G. Groat, Director of USGS. Jake Rice of Fisheries and Oceans, Canada discussed management and policy for fishing, emphasizing the importance of socioeconomic impacts in decision-making. John Steele of Woods Hole Oceanographic Institution discussed some of the findings of a National Marine Fisheries Project that examined the ecosystem effects of fishing in Galveston, Texas, Boston, Massachusetts, and Anchorage, Alaska.

"Scientific advice to manage benthic fisheries in Mexico: present status and perspectives," a presentation by Francisco Arreguin-Sanchez of the Centro Interdisciplinario de Ciencias Marina del IPN, described the condition of shrimp and snapper fisheries. He described recent work to understand the conditions these fisheries are in and possible ways to avoid future collapse. The shrimping system in the Gulf of California has already suffered one collapse, and many other areas are on the verge of collapsing if fishing practices do not change soon, according to Arreguin.

In the afternoon, the meeting shifted focus to characterizing and understanding natural changes in benthic areas. Presenters described and discussed high-resolution imaging, sonars, and other technologies used to determine features and conditions of the ocean bottom.

Submitted by: Andy Jahn

New Study Supports Breaching Snake Dams

The highly respected Rand Corporation, an independent, nonprofit research and analysis firm, has added its considerable weight to the effort to remove or bypass four small hydro-electric dams on the lower Snake River in eastern Washington and replace the power with conservation, improved energy efficiency, natural gas plants, and renewables. This would benefit not only the salmon but also the region's economy as a whole. To view the entire report, you may visit www.wildsalmon.org.

From: Earthjustice, Autumn 2002

Volunteers Scour Texas' Coast for Abandoned Crab Traps

Cleaning up the tens of thousands of crab traps abandoned each year is expensive and time consuming. Coastal resource managers in Texas were overwhelmed by the problem, until they created a volunteer program to clean up derelict traps. The resulting effort was so effective, it is inspiring other Gulf states to tackle the issue. "It was a huge success," says Art Morris of the Texas Parks and Wildlife Coastal Fisheries Division's first crab trap clean up program. "What stemmed from this is that all the other Gulf states are creating some type of crap trap removal program," and Texas is making it an annual event.

The Texas Crab Trap Removal Program prohibited crabbing with traps in state waters for the first time beginning February 16 and going through March 3, 2002. During this time a total of 8,070 abandoned crab traps were hauled out by 554 volunteers in 228 vessels. "We estimate that our cleanup saved 11,000 organisms," exclaims Morris, fishery outreach specialist. "That's a

lot of the reasoning behind creating this program. In addition to killing blue crabs and more than 20 other species, abandoned or lost crab traps are unsightly, create conflicts between recreational and commercial fishermen, and may damage sensitive habitat, such a sea grass. Until 2001, the law in Texas stipulated that only a trap's owner or state game wardens could remove the wire mesh cages used to catch crabs. Texas Parks and Wildlife estimates that 30,000 traps are lost or discarded in state coastal waters each year. In the past, wardens have only been able to collect about 2,500 traps annually. "We've were hand tied to address the magnitude of the problem on a coast wide basis," Morris explains.

Sport fisherman, whose motors are often snagged by the traps, took the issue to the state legislature in 2001, which voted to allow Parks and Wildlife to close crab fishing for up to 30 days in February or March, and authorized the use of volunteers to remove traps after the first 7 days of the closure. Parks and Wildlife worked with the Crab Advisory Committee, a group that includes commercial crab and sport fishermen, to work out the details of the cleanup. The committee proposed a 16-day closure that allowed two weekends for cleanup during the slowest harvest time. After public hearings on the proposal, final approval came November 7, 2001, giving Parks and Wildlife staff only three months to pull the event together. "We really got after it immediately," Morris says. "We had to seek volunteer support, donor support, advertise the event, alert fishermen, find disposal facilities, arrange for 24 collection sites, and find the traps and point them out to the volunteers." Nearly 60 organizations supported the project through donations and volunteers, and the Coastal Conservation Association provided a $14,000 grant for the program, Morris says. "Ultimately, it worked out very well for us."

So well that the Gulf States Marine Fisheries Commission is developing guidelines for other states to create similar crab trap removal programs. "There's been a lot of interest in this program," notes Morris. "It exceeded everyone's expectations."

For more information on the Texas Crap Trap Removal Program, contact Art Morris at (361) 825-3356, or Art.Morris@tpwd.state.tx.us. To read the guidelines that will be published by the Gulf States Marine Fisheries Commission, point your browser to www.gsmfc.org.

From: Coastal Services 6(1), January-February 2003

DNR confirms snakeheads gone from Crofton pond

Remember the snakeheads? Maryland environmental officials have confirmed that the alien carnivorous fish that became a sensation this summer when it was found reproducing in a Crofton pond is indeed a memory.

Department of Natural Resources biologists visited the 4-acre pond November 20th to check for any sign that the Asian predators survived after a fish poison was applied in September in an intensive effort eradicate them. After waiting until the weather chilled and the thick plant life in the pond died, the scientists used an electric shock method to try to stun any fish in the pond and make them float to the surface. "There was not a fish of any species," said DNR Spokesman John Surrick. That wasn't the case two months earlier, when thousands of fish were killed as the DNR sprayed rotenone throughout the pond. Among them were more than 1,000 dead juvenile and six adult northern snakeheads, an aggressive fish that reaches up to 3 feet in length and sits at the top of the food chain in its native China.

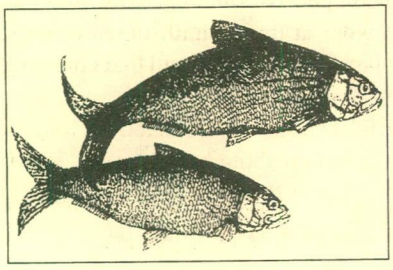
A Maryland man had plopped two of them in the pond two years ago after buying them live in a New York market. Biologists were concerned that the snakeheads could wreak havoc with Maryland's native aquatic creatures if they successfully reproduced and spread to other bodies of water. In fact, some of the snakeheads dissected after the poisoning revealed they had swallowed native fish whole. The fear of snakeheads breaking loose was compounded because snakeheads have the unusual ability to breathe air and wiggle across expanses of land. Surrick said it will be up to the landowners to decide whether they wish to restock the pond with native species with the DNR's assistance. But evidence seemed to suggest the snakehead saga was truly concluded. "This is pretty much it as far as we're concerned," Surrick said.

-Associated Press
From: Bay Journal 12(9), December 2002

East Coast to Begin Phaseout of Ocean American Shad Fishery

Efforts to restore American shad in the Chesapeake Bay may get a boost at the end of December as states along the East Coast begin restricting the catch of the fish in the ocean. The Atlantic States Marine Fisheries Commission (ASMFC) in 1999 called for a five-year phaseout of coastal shad catches. The phaseout begins at the end of this year when states must implement plans to reduce catches by 40 percent. The ocean fishery must be completely closed at the end of 2004.

Shad spend most of their lives migrating along the coast, but they return to their native rivers to spawn. The ASMFC, a panel representing all East Coast states that develops management plans for migratory species, hopes that ending harvests in the ocean will bolster ongoing efforts to rebuild shad populations in many East Coast rivers. "It's kind of an obvious deduction," said Richard St. Pierre, Susquehanna River Coordinator with the U.S. Fish and Wildlife Service, where shad restoration efforts have been under way since the 1970s. "If you don't kill them at sea, at least they are going to get into the rivers."



The ocean fishery has long been controversial because it "intercepts" shad as they migrate along the coast, and fishermen cannot distinguish whether they are catching fish from rivers with healthy or depleted stocks. "Stocks that are most in need of restoration are the ones that could be most impacted by just a relatively small take in the ocean," said Bill Goldsborough, a scientist with the Chesapeake Bay Foundation and a member of the ASMFC. "It is entirely possible that with one set of a net, you get the bulk of the remaining fish from one little tributary."

Restoring shad has been a major goal of the Bay Program, with efforts taking place in all the Bay states to boost populations with hatchery-reared fish and to reopen historic spawning rivers by building fish passages and removing barriers to migration. Proponents of closing the ocean fishery have argued that it makes little sense to invest millions of dollars in such activities only to have the fish harvested in the ocean. The ASMFC will still allow shad harvests within individual rivers. That allows harvests in the rivers with healthy stocks while protecting systems with depleted populations. All of the Bay and its tributaries are closed to shad fishing. Maryland closed its portion of the Bay to shad fishing in 1980, the Potomac River was closed in 1982, and Virginia closed the rest of the Bay in 1993.

Coastal fisherman, though, have argued that shad are often caught as a bycatch as they are targeting other species. If the ocean fishery is closed, they say, the fish will continue to be caught – only the fishermen will not be able to legally sell them. Because of that concern, the ASMFC has also asked the states to enact limits on the bycatch of shad. "Bycatch is anticipated to be a growing problem as the directed ocean fishery is phased out," according to the ASMFC. Scientists say the initial 40 percent reduction may be too little to be seen in annual surveys that take place in the Bay and its tributaries. "With this first reduction, if there is any signal, it is going to be very subtle," said John Olney, of the Virginia Institute of Marine Science, who oversees annual shad surveys in the York River. "But over the long run, I certainly believe that the expectation is that the reduction in offshore effort will result in increased catch rates in our monitoring program in Virginia over the next two to four years. During the early 1900s, shad were the Bay's most valuable fishery, but over the years, shad stocks dramatically declined because of overfishing, pollution, and the construction of dams that blocked access to their spawning grounds.

Recent surveys have suggested the efforts to rebuild the population are having some success, showing a gradual increase in the adult shad population, although they remain far below historic levels.

From: Bay Journal 12(9), December 2002

Congress Rejects Proposals to Transfer Sea Grant, Smithsonian Research

Plans by the Bush Administration to transfer some research programs to the National Science Foundation – a change that would have affected some Chesapeake Bay – related research – have been rejected by Congress and a scientific study panel. In its proposed 2003 budget, the administration called for removing the 35-year old Sea Grant program from the National Oceanic

and Atmospheric Administration and transferring it to the NSF, which is called "one of the true centers of excellence" in the government. The budget also said the administration was considering a shift of funds from the Smithsonian Institution's research facilities, including one heavily involved in Bay research, to the NSF beginning in 2004.

But Congress this year blocked the Sea Grant proposal by passing a bill reauthorizing the program within NOAA. To address the administration's concerns, the bill did call for annual reporting to ensure that research supported by Sea Grant is not duplicative of work supported by the NSF. The plan to transfer Sea Grant had been criticized by some because the NSF tends to support basic research aimed at national priorities, much of which is not immediately applicable. In contrast, each of the 30 university-based Sea Grant programs around the nation tend to emphasize research that is important to its region and is immediately relevant, either to decision makers, or to businesses and the public.

In the Chesapeake Bay, for example, Sea Grant programs in Virginia and Maryland have supported work on aquaculture and studies related to numerous fisheries, including striped bass and blue crabs, as well as some of the original research about the impact of nutrients on Bay water quality and underwater grasses.

The bill would authorize $60 million for Sea Grant for the 2003 fiscal year, and increase that to $85 million by 2008. In addition to these amounts, the bill would authorize an additional $5 million for zebra mussels, $5 million for oyster disease, $5 million for algal blooms and $3 million for fishery extension each year. Meanwhile, a pair of outside studies concluded that scientific research at the Smithsonian Institution is unique and of such high quality that it deserves continued federal funding.

Last year, the White House Office of Management and Budget proposed to switch some Smithsonian funds to the NSF, forcing the Smithsonian to compete with other scientists for grants. When that drew fierce opposition, the OMB asked for a review of Smithsonian science, suggesting that it was not original enough to deserve noncompetitive funding. The National Research Council, an arm of the National Academy of Sciences, concluded this fall that work at three Smithsonian centers, including the Smithsonian Environmental Research Center in Edgewater, MD, do "world-class" science, and said that changing the source of funds would hamper their work.

SERC is well-known for decades-long research on how watersheds impact water quality. It has also maintained the longest consistent survey of blue crabs in the Bay and serves as a nationwide clearinghouse for information about ballast water, which is moved from place to place by ships, often causing invasions by foreign aquatic species. The National Academy of Public Administration, an independent organization that was also asked to look at the Smithsonian science programs, also issued a separate report calling the continuation of direct appropriations for Smithsonian science.

"Both reports speak to the secret of Smithsonian science, and I think both of them will go a long way to uncovering that secret," said David L. Evans, Smithsonian undersecretary for science. "The secret is, there is a long tradition of very high-quality science practiced by renowned scientists who have very little exposure outside of their own field.

The Associated Press contributed to this report
From: Bay Journal 12(9), December 2002

Oyster harvest expected to be lowest in more than a century

Chesapeake Bay oysters are so ravaged by drought and disease that Maryland and Virginia biologists expect this year's harvest to be the smallest since the late 1800s, when catch records started being kept.

The Bay is expected to produce a harvest of less than 100,000 bushels in the coming oyster season. Biologists blame dry conditions, which have persisted for the past three years, for creating favorable conditions for the deadly oyster diseases MSX and Dermo.

"We're seeing diseases literally robbing the Bay of the oysters," said Christopher Judy, director of the Maryland Department of Natural Resources' shellfish division.

Maryland biologists say preliminary reports indicate that the harvest — which began Oct. 1 and ends March 31 — should drop lower than the 79,618 bushels caught in 1993-1994, the lowest on record. Virginia officials predict the Virginia catch should remain where it has been for the past several years — around 20,000 bushels.

As recently as the 1950s and 1960s, before the diseases were widespread in the Bay, annual harvests ran between 3 million to 6 million bushels a year.

The diseases have also been a setback for the Chesapeake 2000 agreement goal of achieving a tenfold oyster increase by 2010.

From: Bay Journal 12(9) December 2002

Pass on Chilean Sea Bass

By Vivian Newman

The Sierra Club, in partnership with The Antarctica Project and the National Environmental Trust, is urging restaurant chefs and home cooks to stop buying Patagonian toothfish, known commercially as Chilean sea bass, in an effort to save the species from extinction. "We're taking Chilean sea bass off our plates in order to keep it on the planet," says one chef. Unless demand for the fish declines, estimates suggest that it may be commercially extinct within five years.

There has been a limit on legal fishing of the toothfish since 1991. However, illegal fishing of the species has skyrocketed in recent years. The estimated illegal catch is two to three times the legal limit. Approximately 80 percent of Chilean sea bass sold on the world market is illegally obtained.

The slow reproduction rate of the Patagonian toothfish – they can live up to 80 years and don't reproduce until they are 8 to 10 years old – makes it nearly impossible for it to recover from overfishing. When researchers began studying the Patagonian toothfish 20 years ago, the average fish was five feet long and weighed more than 150 pounds. The fish was virtually unknown until a specimen was caught in the deep waters off Chile in 1982. Appearing on menus as Chilean sea bass, the fish quickly became a sensation in high-end restaurants. The restaurant industry accounts for 70 percent of all Chilean sea bass sales in the United States.

The "Take a Pass on Chilean Sea Bass" campaign will continue until the Commission for the Conservation of Antarctic Marine Living Resources, the international body that regulates the Patagonian toothfish, can put an end to illegal, unreported, and unregulated fishing of the species.

From: Planet, September-October, 2002

Pew Commission Report

United States, Monday, October 28, 2002

Many fishing activities are harming the ecosystems on which future fishing depends, and damage is worsening, contends new report prepared for the Pew Oceans Commission.

"Ecological Effects of Fishing in Marine Ecosystems of the United States (available online at www.pewoceans.org) was written by Paul Dayton of Scripps Institution of Oceanography, Simon Thrush of the National Institute of Water and Atmosphere Research (New Zealand), and Felicia Coleman of Florida State University. Leon Panetta, chair of the Pew Oceans Commission, released the report Friday in Santa Barbara, California, in conjunction with the California and the World Ocean Conference.

"Our oceans are more vulnerable and more valuable than we ever imagined," and Panetta. "If we want to sustain America's proud fishing industry, then we need to take a hard look at how pollution, development, and fishing activities are harming the oceans.

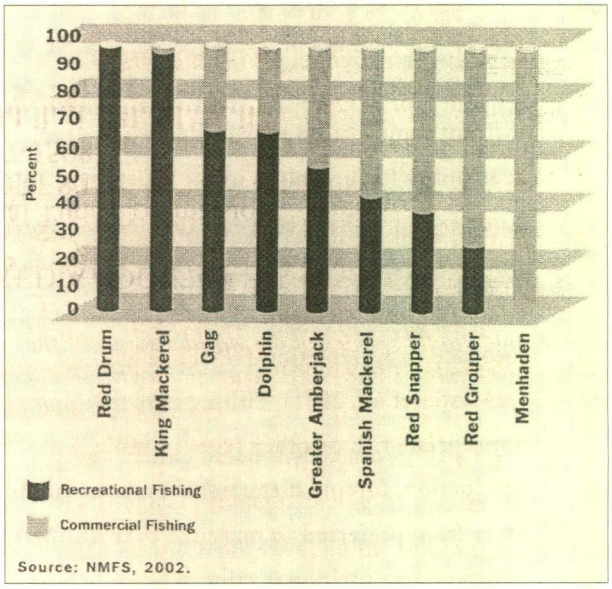
The Pew Oceans Commission is conducting a review of policies and laws needed to sustain and restore living marine resources in over 30 years. The commission will present its final recommendations for a new national ocean policy to Congress and the nation in early 2003. Information about the Commission, including copies of its science reports, is available online at www.pewoceans.org.

From: FIS North America

Recreational Fishing Gulf of Mexico

Allocation of total catch (by weight) of the principal finfish species contained in the management plan for the Gulf of Mexico, as defined in the National Marine Fisheries Service (NMFS) Report to Congress on the 2001 Status of Fisheries. Note: We used the landings data for the year 2000 to created this graph because the 2001 landings data on recreational fisheries were not available on the NMFS website at the time of this writing. The NMFS website notes that the catch weights for the recreational fishing component are likely underestimated.

From: Ecological effects of Fishing in marine ecosystems of th eUnited States by Dayton, Paulk., Simon Thrush and Felicia Coleman Pew Oceans Commission, Arlington Virginia



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