American Institute of Fishery Research Biologists

. . . BRIEFS . . .

VOL. 28, NO 1 JANUARY, FEBRUARY, 1999

PRESIDENT SAKAGAWA SETS INSTITUTE GOALS

I feel very fortunate in having the opportunity and honor to serve as your President of AIFRB. It is a tough act to be following in the foot steps of some great past-Presidents and to match their accomplishments. I am confident, however, that with your help and the support of past-President Clark Hubbs and the other members of the Board of Control, we can make a difference and move the Institute a bit further in advancing its purpose.

As your president, it is appropriate that I inform you of my goals. Gene Huntsman, *Briefs* editor, reminded me of this obligation and asked that I contribute this piece to outline my goals. At the outset, I'll admit that I'm still on the learning curve with respect to issues facing the Institute and rules of governance and, hence, may not have all the important issues covered in my goals nor do I have precise plans for achieving them. In short, my goals are not yet set in concrete and I welcome your input.

I have three goals for my tenure in office. They are: 1) increase funding; 2) improve benefits; and 3) advance performance of members. All three are interrelated, and as legs of a three-legged stool, they work together to support the charter of the AIFRB. My first goal is to achieve significant growth. With the recent increase in dues, our budget is balanced and there is some leftover change for reserve. However, it won't take much inflation or unanticipated expenses to wipe-out that change and tip the budget over to the deficit side. In other words, there is just enough cushion for *status quo* operations, and perhaps, for only a couple years at that.

Status quo, in my view, is unacceptable if the Institute is to survive as a relevant professional fisheries organization and as a force in shaping the rapidly changing fisheries field. Breaking out from *status quo* will not be easy and will include examining our income stream, expenses and priorities. For example, a priority would be to scale-up our involvement to "advance the theory, practice and application of the science of fishery research biology; and thereby to promote the conservation and proper utilization of fishery resources" (Article IV, AIFRB Charter). Scaling-up will surely mean increased cost, e.g., sponsoring workshops or symposia. If we believe this is the right thing to do, then we should be able to find the funds to support this priority. My plan is to lead an effort to explore funding and related matters to develop a long-range financial plan for the Institute.

My second goal is to improve benefits to members. "A product's benefits are what sells a product." This is true for Viagra, a computer, an automobile, or an AIFRB membership. Through enhancing and promoting the benefits of membership in AIFRB, we focus on selling points for new members and for retention of current members. An example of enhanced benefit would be to celebrate promotions, achievements and induction of new members on the front page of *Briefs* rather than towards the rear. This would be a symbolic gesture, but one that signals that our Institute places high value on recognition of its members' competence and achievements. I believe there are several other procedural and operational changes like this one that can be instituted to improve benefits to members and promote the Institute as a professional organization.

My third goal is to advance the performance of members in the practice of fishery science. This is related to the fact that we are in an era of extremely rapid advances in fishery and related sciences and growing public

(Continue page 2...)

(Continued from page 1...)

support for "sustainable" fisheries and healthy ecosystems. Fishery scientists are expected to use scientific advances and their "silver bullets" to solve complex fisheries issues and meet, at least partially if not fully, public expectations. The Institute can assist its members towards this end. In fact, this is at the heart of the Institute's purpose, i.e., "...the primary role of the Institute shall be concerned with the professional development and performance of its' members..." (Article IV, AIFRB Charter).

The Institute bestows a "seal of approval (good fishery science) "of professional competence in the practice of fishery science when admitting a member. To ensure that the seal does not tarnish from neglect of professional development or lapse in adherence to our "Principals of Professional Conduct for Fishery Biologists," the Institute has traditionally promoted professional development of its' members. I wish to scale-up this effort and focus on providing opportunities for members to keep up with advances in our discipline and to acquire skills and knowledge necessary for continuing to be successful. The efforts would include the traditional symposia and workshops, articles in *Briefs*, announcements of relevant continued education courses offered by other organizations, etc. However, the efforts could be organized differently to improve effectiveness. For example, we might use alliances with other like-minded professional organizations if offering symposia and workshops on strategic topics; we might focus on informing members of strategic breakthroughs and advances in fishery science on a more real-time basis; etc. There are many other possibilities and the probability of executing the promising ones will grow as progress is made with my other two goals.

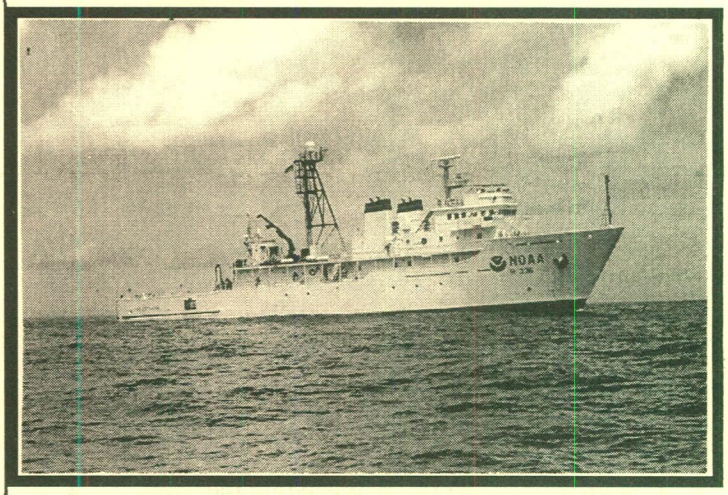
The easy part of outlining my goals has been done. The more difficult part will follow. That is the development of concrete plans for achieving the goals within a time framework of three to five years. For this, I will need your support, suggestions, etc. , but better yet, your volunteering to serve on a working group tasked to develop and execute the plans. I hope you will seriously consider this invitation and I look forward to hearing from you.

Fellow Gunter Honored by Ship Naming

During a traditional maritime ceremony marking passage of a ship into federal service, Commerce Secretary William M. Daley ordered the NOAA ship *Gordon Gunter* placed into commission.

The ceremony took place in Mississippi at The National Marine Fisheries (NMFS) Pascagoula Laboratory pier, where the *Gunter* will be homeported. The ship, second largest fisheries research vessel in the United Stares, will serve the Southeast Fisheries Science Center by conducting scientific surveys and collecting data on the health and abundance of fishery resources in the Gulf of Mexico, Atlantic Ocean and Caribbean Sea.

The *Gunter* formerly was a Navy T-AGOS ship called the *Relentless*. She was renamed in honor of one of the Gulf region's most eminent marine scientists: Gordon Gunter. His career as a marine biologist and leader in marine research and education has spanned more than 60 years, including 16 as director of the Gulf Coast Research Laboratory.



"We are especially pleased to name the ship after Gordon Gunter, who has dedicated his life to the study and teaching of marine science in the gulf region," Daley said. "His pioneering work has substantially increased the scientific body of knowledge, and set the standard for continuing research. This new ship will help the National Marine Fisheries Service and its Mississippi Laboratories ensure that we have a consistent and reliable source of solid data."

Despite an illness that has left him nearly incapacitated, Gunter was present at the ceremony along with members of his family.

Senate Majority Leader Trent Lott, R-Miss., delivered the keynote address. His support in Congress was instrumental in obtaining the funding needed to convert the *Relentless* into a fisheries research ship.

From Commerce People —Nov.- Dec., 1998

The American Institute of Fishery Research Biologists

Research Assistance Awards

$100-$350*

*Range of past awards

PURPOSE To provide travel assistance for graduate students and other associate members to present papers at scientific meetings and to conduct off-site research.

ELIGIBILITY All professional and student associate members in good standing are eligible to receive a maximum of two awards.

APPLICATION Submit:

- written request for the award
- letter of support from your research mentor or supervisor
- notification of the paper's acceptance for presentation (may be submitted after deadline if unavailable).

TO: Thomas R. Lambert
3162 Mariola Road
Sebastopol, CA 95472
707-829-7882
Fax: 707-829-8234
lambert5@pacbell.net

If you are not a member, please request a membership application from:

John L. Butler
P.O. Box 271
La Jolla, CA 92038
jbutler@ucsd.edu

Deadline April 10, preceding the meeting.

NOTE The name of research assistance award recipients and their abstracts or a description of their activities will be published in *Briefs*.

BULL TROUT

In late January 1999, U.S. Magistrate Bart Erickson ordered the Army Corps of Engineers and the Bureau of Reclamation to consider the welfare of threatened bull trout and sturgeon when managing water releases from Hungry Horse and Libby Dams in Northwest, MT. This ruling came in response to a MT lawsuit, objecting to reservoir drawdowns in 1996 and 1997 to benefit salmon downstream in the Columbia River Basin.

Billings Gazette

PATAGONIAN TOOTHFISH

On December 30, 1998, New Zealand's Minister for Antarctica—Simon Upton, announced that New Zealand plans to conduct surveillance of fishing vessels over the Antarctic's Ross Sea, between January and mid-march 1999 to enforce fishing regulations against unauthorized vessels that might be illegally taking Patagonian toothfish.

Reuters, The Press-Christchurch

W. F. Thompson Student Paper Award - 1997

Prof. Thompson was an outstanding fishery scientist in North America and is honored by the award through the activities of the American Institute of Fishery Research Biologist (AIFRB).

The W. F. Thompson Best Student Paper Award (for 1997) is given by the AIFRB annually to recognize excellence in research as well as to encourage student professionalism in fisheries and aquatic sciences and publication of research results. The award includes a plaque and check for $1,000.00.

All scientists are eligible so long as the senior author conducted the research while a student of fish or some aspect of aquatic science.

Papers nominated for the Best Student Paper Award must have been accepted for publication in a recognized scholarly journal, or as part of a book or proceedings, within three years of termination of student status. Each member of AIFRB has a serious responsibility to nominate a student paper and to encourage Academic Colleagues to do so. The Thompson award is an important mechanism to promote good science and the careers of serious students of fishery research.

For papers published in 1997 and to be nominated for the Award; send a resume with details of student author's educational and recent employment history, as well as six copies of the paper to:

Dr. Jack B. Pearce, Chair
W. F. Thompson Best Student Paper Award
Buzzards Bay Lab
540 Upland Av.
Falmouth, MA 02540

To be eligible, papers must be received by Saturday, April 10, 1999.

SAKAGAWA STRIKES

AIFRB Board of Control
Calendar for 1999

President Sakagawa has developed the following proposed schedule in order to ensure regularity and accomplishment by the Board of Control (BOC) and Institute as a whole.

Date	Action	Responsible Person
FEB. 1 1999	Articles for Jan-Feb issue of *Briefs* due to Huntsman	All
MAR. 1, 1999	Jan-Feb issue of *Briefs* published	Huntsman
APR. 1, 1999	Articles for Mar-Apr issue of *Briefs* due to Huntsman	All
Apr. 15	Announcement of research assistance awards to Huntsman	Lambert
MAY 1, 1999	Mar-Apr issue of *Briefs* published	Huntsman
May 1	Final minutes distributed to BOC	Warkentine
JUN. 1, 1999	Articles for Jan-Feb issue of *Briefs* due to Huntsman	All
Jun. 11	Announcement of Professional Development Awards to Huntsman	Panek
Jun. 11	Symposium program due to Huntsman	Doug Vaughan
Jun. 11	BOC meeting agenda due to Huntsman	Sakagawa
JUL. 1, 1999	May-June issue of *Briefs* published	Huntsman
Jul. 2	Committee and District reports due to Warkentine	All
Jul. 16	Arrangements for BOC meeting provided to BOC	Warkentine/Merriner
AUG. 1, 1999	Articles for Jul-Aug issue of *Briefs* due to Huntsman	All
Aug. 1	Treasurer's audit report due to BOC	Sakagawa
Aug. 27	Treasurer's report due to BOC	Rachlin
Aug. 28-29	BOC meeting, Charlotte, NC	All
SEP. 1, 1999	Jul-Aug issue of *Briefs* published	Huntsman
Sep. 24	Thompson Award letter due to Sakagawa	Pearce
Sep. 24	Thompson Award Certificate due to Rachlin	Butler
Sep. 24	Draft BOC minutes due to BOC for review	Warkentine
OCT. 1, 1999	Articles for Sep-Oct issue of *Briefs* due to Huntsman	All
Oct. 8	Final BOC minutes to Huntsman	Warkentine
NOV. 1, 1999	Sep-Oct issue of *Briefs* published	Huntsman
DEC. 1, 1999	Articles for Nov-Dec issue of *Briefs* due to Huntsman	All
JAN. 1, 2000	Nov- Dec issue of *Briefs* published	Huntsman

Editor's Note: Despite existence of this Calendar, members should feel free to submit material for Briefs at any time. Important notices can often be inserted at the last minute, and the publication dates are often altered in response to various National Emergencies (e.g. grouse season in Minnesota, the striped bass run in the Roanoke River, etc.).

JET-SKI BAN UPHELD

The Washington State Supreme Court recently upheld a county ban of jet skis in the San Juan Islands. The environmental impact of the waterjet-powered machines was one of the primary reasons the county sought the ban.

"The ban was appropriate here because San Juan County is unique environmentally," said Randy Gaylord, San Juan County prosecuting attorney. "The ruling could have a national impact because the court ruled the decision to ban jet skis was a matter of local control. There are common points in this case that could apply to every other state in the nation."

From Coastal Service I (4)-Nov.-Dec., 1998

THE FUTURE OF FISHERIES MANAGEMENT

Jack Pearce - Philosopher in Residence; New-England District Director

In a recent contribution to *Briefs* I discussed what I have seen as an editor in regard to the nature of future fishery scientists. Increasingly, it seems to me, these scientists will not necessarily be trained as a fishery biologist. Many working in marine fisheries agencies today were trained as zoologists, oceanographers, pathologists, or in any number of other disciplines.

After the *Briefs* article appeared I was contacted by the mail and e-mail; some said that a fishery biologist should or must be trained in a school or department of fisheries. Others recognized that today the field of fisheries will involve a wide range disciplines, including computer programmers, electron microscopists, sedimentologists, and even more arcane endeavors.

Very recently I received another input on the matter. This was in the form of a report entitled "The Future of Wildlife and Fisheries Policy and Management: Assessing the Attitudes and Values of Wildlife and Fisheries Professional" by **R.M. Muth,** University of Massachusetts; **D. A. Hamilton,** Missouri, Dept. of Conservation, Columbia; **J. F. Organ,** U.F.F.W.S., Hadley, MA.; **M. E. Mather,** Massachusetts, Cooperative Fish and Wildlife Research Unit, Amherst, MA; **and J. J. Daigle,** U.S.D.A. Forest Service, Amherst, MA. The report was based on recent responses to a questionnaire distributed by the University of Massachusetts and other agency personnel.

The first sentence of the report was, "Conflicts within advanced industrial society over the management and use of wildlife and fisheries resources are increasing dramatically." This is, in fact, axiomatic today. Anyone working in fisheries will understand that arguments develop regularly between fisheries and scientists, industry and managers, and between state personnel and those of the federal and academic establishments. One has only to read the new Nicholas Evan's novel, "The Loop" to understand the adversity which can develop between the various stake holders involved with the introductions of wolves and other predators!

The aformentioned report does note that the U.S. and North America generally are now urbanized societies. One no longer has to be a fisher or hunter, or a wildlife biologist, to appreciate and comprehend the upland game or downstream steelhead. In fact, many non-hunters, bird watchers, and environmentalists will say they know the game and fishes as well, or better, than the former. Likewise, the professionally trained ecologist will think that, in terms of sustainable ecosystems, he or she knows and, perhaps, appreciates the fish and game even better.

I would suggest that the readers of *Briefs* obtain a copy of the report which is available as a separate from the Transactions of the 63rd North American Wildlife and Natural Resources Conference (1998), pp. 604-627. While I did not necessarily agree with all its suggestions and conclusions, the arena presented is extremely important for all resource professionals to understand, and appreciate. We are dealing today with questions which affect not only the traditional stake holders of yesteryear, but also a new listing of the public which has a far wider involvement in the living resources of the seas. Already I have heard citizens suggest that in the future far more commercial product should come from mariculture, with a much larger proportion of the wild stocks reserved for the recreational fisher. And, more and more, conservationists would say these should be greatly reduced or no more trawling mobile gear. One knowledgable professional recently stated that "all fixed gear" should become the basis for commercial endeavours.

Obviously, such concern will grow, not lessen. We will need far more talents, and patience, if we are to resolve these issues. Thus the need for experts in genetics, disease, economics, and negotiations, will increase, and so must the grasp of the AIFRB, AFS, ERF, and ASLO. The future will be governed not by a marine scientist or fishery biologist *per se,* but by a team that is highly interactive.

—Jack B. Pearce

Santa Ana Sucker

On January 15, 1999 the U.S. Fish and Wildlife Service was reported to have proposed listing Southern California's Santa Ana sucker as threatened under the Endangered Species Act. In 1997, California Trout and the CA-NV chapter of the American Fisheries Society were reported to have filed a lawsuit to force federal action on this species.

Los Angeles Times

Fetterolf Returns to Sea Grant Panel

Four New Members, Two Reappointments To Sea Grant Panel

Secretary Daley has reappointed two and named four new members to three-year terms on the National Sea Grant Review Panel, NOAA said.

Made up of individuals with backgrounds in marine affairs, the panel advises the Secretary, the under secretary for oceans and atmosphere and the director of the National Sea Grant College Program on scientific and administrative policy.

New appointees to the 15- member panel are:

Peter Bell, adjunct senior scientist with the Carnegie Institution, Washington, D.C., and retired vice president and chief scientist of the Norton Co, and St. Gobain Corp., Wordester, MA.;

Michael Fischer, environment program officer for the William and Flora Hewlett Foundation, Menlo Park, CA.;

Frederick Hutchinson, recently retired president of the University of Maine and professor emeritus of the University of Maine in Orono;

And Judith Weis, professor in the Department of Biological Sciences at Rutgers University.

Panel members reappointed to three-year terms were Carlos Fetterolf Jr. (AIFRB Fellow), retired executive secretary, Great Lakes Fishery Commission, Ann Arbor, MI., and Geraldine Knatz, director of planning for the Port of Long Beach, CA.

Established by Congress in 1966, the National Sea Grant College Program is a partnership of academia, government and the private sector dedicated to development wise use of the nation's coastal, ocean and Great Lakes.

From Commerce People, Nov-Dec, 1998

New Generation Learns How Chesapeake Bay Scientists Navigated The Way

Seven distinguished scientists, "the old gurus," gathered to share their experience and advice with a couple dozen aspiring student scientists from universities in the Chesapeake Bay watershed—the "young Turks." The *"Across the Generations Dialogue,"* which took place November 20-21 at Washington College in Chestertown, MD, was aimed at giving the young generation a perspective from these early leaders. It was sponsored by the Alliance for the Chesapeake Bay, the Bay Program and the Chesapeake Research Consortium and will be subject of a future Sea Grant video. The early days of research—when much of the Chesapeake was a blank slate, in terms of understanding—was not necessarily a golden era the young scientists learned, as many scientists acknowledged frustrations along the way. Speakers included: James Coulter, first Secretary, Maryland Dept. of Natural Resources; William Hargis, former Director of the Virginia Institute of Marine Science; Gordon Wolman, former Chair of Johns Hopkins Department of Geography and Environmental Engineering; Grace Busch, Professor in the same department, Eugene Cronin (AIFRB Fellow, deceased January, 1999) former Director Chesapeake Biological Laboratory; Donald Pritchen former Director, Chesapeake Bay Institute, and John Gottschalk, former Director U.S. Fish and Wildlife Service; John Costlow, former director Duke University Marine Laboratory —moderated the event.

At the end of the day, each of the students was presented with a flask of water drawn from the middle of the Chesapeake. Costlow instructed the students to return in 35 years "which is not that far from now." At that time, he said, the students would be the "old gurus" and it would be their job to pass the flasks, and what they have learned, onto a new generation of "young Turks", symbolically keeping the stream of knowledge flowing through time.

From Bay Journal-December, 1998

AIFRB Members at Work—

Global warming evidence on the Carolina shelf
Global Warming Implications (Carolina District Vice-Director)

By R. O. Parker, Jr., and R. L. Dixon

A North Carolina reef fish community was resurveyed with scuba gear to determine if changes occurred in community structure after 15 years of intense fishing. Generally, fishes important in the recreational and commercial fisheries were smaller, and large changes occurred in relative abundance and species composition. Indicative of a warming trend, total species composition of fishes had become more tropical, and a tropical sponge previously unrecorded at this latitude (34.5°N) off the North Carolina coast became common. Two new (to the area) families and 29 new species of tropical fishes were recorded. Observations of 28 species of tropical reef fishes increased significantly. No new temperate species were observed and the most abundant temperate species decreased by a factor of 22. Mean monthly bottom water temperatures in winter were 1-6°C warmer during the recent study.

Changes in a North Carolina Reef Fish Community after 15 years of Intense Fishing
From Transactions of the American Fisheries Society 127:908-920, 1998
American Fisheries Society 1998

MEETINGS OF NOTE

Spatial Processes and Management of Fish Populations
17th Lowell Wakefield Fisheries Symposium
Anchorage, Alaska, USA
October 27-30, 1999

Symposium Background: Critical aspects of fish population dynamics cannot be satisfactorily addressed by averaging estimated population parameters over the entire range of a stock. Many processes operate over relatively small spatial scales such as oceanic features needed for larvae survival, predator and prey whose spatial distributions vary over time, and discrete habitats required for specific life history stages.

The goal of this symposium is to gather world-wide expertise to discuss important spatial features of fish population dynamics, spatial fisheries management applications, and technological advances in this area of spatial fisheries research and management.

Papers may cover, but are not limited to, the following topics:

- Variations in key population parameters within the geographic range of a stock.
- Spatial variations in oceanographic (ocean fronts, eddies, etc.) or ecological (community gradients) features that play critical roles in the growth and survival of exploited marine populations.
- Spatial distinctiveness in spawning and nursery areas for species with pelagic eggs and larvae, and biophysical mechanisms that transport or retain larvae.
- Use of marine reserves to achieve fishery management objectives.
- Spatially explicit experimental management to:

  1) gather information on population dynamics under alternative harvest strategies.

  2) attempt to separate fishing and "natural" environmental effects.
- Spatial management of sessile organisms particularly vulnerable to overfishing.
- Spatial management to protect bycatch species or to protect critical habitats.
- GIS and statistical methods to analyze spatial data.

  In situ or remote technologies to gather spatial data for use in fisheries research and management.

Brenda Baxter, Coordinator
Alaska Sea Grant College Program
University of Alaska Fairbanks
P.O. Box 755040
Fairbank, AK 99775-5040 USA
Email: FNBRB@uaf.edu
Voice mail: 907-474-6701; Fax: 907-474-6285
http://www.uaf.edu/seagrant/Conferences/symposia.html

Evaluating the Benefits of Recreational Fishing
Vancouver, British Columbia
June 1-4, 1999

The considerable social, economic, and ecological benefits that recreational fisheries provide have not always been fully acknowledged. The goal of the conference will be to furnish the basis for full recognition of sport fisheries as an important sector of the world's fishing industry. Papers will cover applied and theoretical aspects relating to evaluation of recreational fisheries.

Gunna Weingartner Events Officer
UBC Fisheries Centre
2204 Mail Mall
Vancouver, BC V6T1Z4, Canada

International Symposium on Biotelemetry
Juneau, AK
May 9-14, 1999

ASIH
Pennsylvania State University, State College, PA
June 24-30, 1999

AFS
Adam's Mark Hotel, Charlotte, NC
August 29-September 2, 1999

WORKSHOP: Bering Sea Ecosystem — Seattle, December 4-5, 1998

The Bering Sea ecosystem is the most productive marine ecosystem in the United States, and one of the most productive, if not the most productive, in the world. The Bering Sea provides 56% of the United States' fisheries production. The total commercial value of the catch exceeded one billion dollars in 1994. The Bering Sea has the largest international aggregation of seabirds in the world. It represents 43% of all breeding seabirds in the United States.

(Excerpted from the introductory address of Deborah Williams, Special Assistant for Alaska to the Secretary of the Department of the Interior, given at the beginning of the workshop.)

Day one of the Workshop featured presentations on past and ongoing Bering Sea research programs given by federal agencies and other organizations. The purpose of these reviews was to determine which research organization is doing what marine research in the Bering Sea. Participants heard from most of the major line programs of the National Oceanic and Atmospheric Administration, the U.S. Department of the Interior, and the State of Alaska. Additionally, presentations were given by representatives of the U.S. Department of State, U.S. Environmental Protection Agency, and other organizations. Research programs in which the University of Alaska played a key role were also outlined along with many of the research partnerships that have been formed between state/ federal agencies and universities. The Bering Sea ecosystem is intricate and complex. The breadth of reviewed research spans all aspects of ocean sciences: air-sea interactions, ocean current dynamics, ice dynamics, primary production, secondary production, benthos, fish and fisheries, marine mammals, seabirds, and pollution. The number of multi-institutional, multi-disciplinary research efforts are increasing at a fast pace.

There was a particular emphasis on monitoring of the Bering Sea ecosystem, its component species, and a growing trend for broader based ecosystem research. The broader based programs would focus on understanding habitat needs of important species, predator/prey interactions between ecosystem components, the role of climate in influencing biological productivity and change, and human impacts (particularly fishing impacts) on various aspects of the ecosystem. These research directions indicate the need for expanded funding of ecosystem-based research, definition of a common research plan, and development of mechanisms for ongoing research coordination.

Day two of the workshop focused on information - what is there and how to share. It also addressed a window to the future. If Bering Sea information can be accessed on whatever subject, no matter where the information resides, ecosystem-based coordinated research will be made easier. Data gaps are many. The data sources for traditional knowledge (TK) appeared challenging to acquire. Patricia Longley-Cochran stated "When an elder dies, a library burns. This illustrates that much TK is transmitted by oral tradition. The Alaska Native Science commission has suggested a process of compiling TK: 1) conduct meetings to identify community members who hold knowledge of the land, what is happening to the land, the important issues, and 2) what information is already available. Various agencies have also collaborated with native groups to compile TK. For example, the Alaska Department of Fish and Game maintains such a database, 'Whiskers'. The data bases of the disciplines of western sciences are extensive. They range from phytoplankton, zooplankton and other lower trophic level information, to fish and fisheries, to seabirds and marine mammals, and chemical contaminants. We also covered the information gathering services of federal agencies like NOAA's National Oceanographic Data Center, Coast Watch, Sea-WIFS, the National Weather Forecast Office, the National Ice Center, the National Snow and Ice Data Center, the National Climatic Data Center, the National Data Buoy Center.

Recommendations of the Organizing Committee

1. Coordination of Field Sampling Plans

A 3-step process to facilitate the coordination of agency research projects and cross-placement of scientific personnel on field sampling programs: includes: a) conduct a research coordination meeting to discuss field plans early each year; b) develop interactive web-site to share research plans, and c) annually compile and publish agency research plans in a compendium. The intent of this process is to integrate the current work of multiple agencies, reduce redundancies, and maximize the research benefit of existing agency resources.

The Committee recommended that a web-site be used initially to facilitate coordination. Such a web-site can be integrated with the metadatabase project (that is described below) to build a 'living document' on the World Wide Web for sharing information on research planning on a continuing basis. The

Committee also recommended that NOAA be designated the leader to undertake the project.

2. Sharing of Data-Bases

The Committee agreed that the most efficient means of sharing data is to develop a metadatabase on the World Wide Web. This project has already been initiated by NOAA (by the Alaska Fisheries Science Center and the Pacific Marine Environmental Laboratory) and has been in operation for several months. The Committee agreed that there was no need to initiate another database project. The database already resides in a web-site (http-.//www.pmel.noaa.gov/bering/mdb/) that is maintained by NOAA's Pacific Marine Environmental Lab.

The Committee recommended that work continue on development of NOAA's Bering Sea Ecosystem Biophysical Metadatabase project and that all research projects link their existing databases into it. The Committee also recommended that NOAA remain the lead agency to facilitate the coordination process and maintain the metadatabase.

3. Traditional Local Knowledge

One of the more challenging aspects of finding ways to better understand the Bering Sea ecosystem is to reconcile the apparent dichotomy of western scientific disciplines with traditional knowledge (TK) of indigenous people. Another complication of integrating TK into ecosystem research and management is the notion that such information is regarded as sacred and proprietary to indigenous peoples.

In addition to TK, the Committee recognized that efforts are underway by the Mineral Management Service and the North Pacific Fishery Management Council to compile local knowledge of marine resource events that reflect unusual environmental conditions. Such information would contribute additional observations for ecosystem studies.

The Committee recognized that collaboration between western science and traditional knowledge must continue. Various agencies have already invested significant resources into the integration of TK into its process through collaboration between indigenous people and agency researchers/managers. Consideration should also be given to empower various coastal communities to carry out environmental monitoring projects as a component and/or adjunct of a Bering Sea Ecosystem Science Plan.

4. Bering Sea Ecosystem Science Plan

Congress has enacted legislation that establishes an Environmental Improvement and Restoration Fund (a.k.a Dinkum-Sands) to carry out marine research in the North Pacific. Such funds shall be used by the Secretary of Commerce to provide grants to Federal, State, private or foreign organizations or individuals to conduct research activities on or relating to fisheries or marine ecosystems in the North Pacific Ocean, Bering Sea, and the western Arctic Ocean. The legislation also calls for the creation of a North Pacific Research Board, whose purpose is to review and recommend research priorities and grant requests for Secretarial approval.

The Committee recommended that a Core/Planning Group be identified from organizations engaged in marine research and management off Alaska to begin development of an integrated Bering Sea Ecosystem Science Plan. The Group recommended an administrative process for soliciting and reviewing proposals supporting the objectives of the science plan.

Forty one state, federal, and private organizations participated in the Workshop. For more information, contact: http://www.pmel.noaa.gov/bering.

Protection for Bluefin Claimed

The United States was successful in establishing the first-ever mandatory plan to rebuild overfished western Atlantic bluefin tuna at the annual meeting of the International Commission for the Conservation of Atlantic Tunas in Santiago de Compostela, Spain, November, 1998. In addition, the U.S. delegation's strong stance on quota compliance and accountability for overfishing compelled the European Community to lower its 1999 bluefin quota to make up for past overharvests.

"We are extremely pleased to have taken a major step towards stabilizing and rebuilding Western Atlantic bluefin tuna," said Assistant Secretary of Commerce for Oceans and Atmosphere Terry Garcia, representing the Secretary of Commerce at the meeting. "The rebuilding plan is the first comprehensive long-term approach of its kind developed at ICCAT, and it reflects the commission's goal of maintaining populations at levels that allow maximum sustainable catch. And, we note the high degree of cooperation between our colleagues from Canada and Japan in achieving this step."

From NOAA Report VII (12)—December, 1998

South Atlantic Council Phases out Sargassum Harvest

Council members deliberated for hours before approving an action to prohibit the harvest of sargassum effective January 1, 2001 after taking final public testimony on the Sargassum Plan at the December meeting in North Carolina.

Several citizens stood to urge the council to approve a prohibition on sargassum harvest because of the sea algae's use by several dozen marine species as habitat. Mr. Bill Campbell, founder and president of Aqua 10 Laboratories in Beaufort, North Carolina also spoke during the comment session. Campbell, whose company is the only known harvester of sargassum once again defended his operation as having minimal impact on seaweed decline and bycatch of marine life. He uses the algae to produce such commodities as agricultural products, including fertilizer and animal dietary supplements.

"Given the requirements of the Sustainable Fisheries Act and the fact that we have identified sargassum as essential fish habitat, I can't support continued harvest," said South Carolina council member David Cupka.

The council approved the Sargassum Plan for submission to the Secretary of Commerce for implementation with the following actions:

A). Prohibit all harvest and/or possession of sargassum from the South Atlantic EEZ effective January 1, 2001.
B.) Until January 1, 2001 harvest will be capped at 50,000 wet pounds.
C.) Harvesters will be required to:

1. Have a permit
2. Allow on board observers if requested.
3. Harvest only in the area seaward of the longitude line representing 100 miles from shore bounded by the latitude lines representing the NC/VA border and the NC/SC border.
4. Maintain logbooks.
5. Call into the National Marine Fisheries Service when leaving and returning to port.
6. Use nets of four inch stretch mesh or larger.

South Atlantic Update-January, 1999

BPA Electricity Costs

On January 7, 1999, Bonneville Power Administration (BPA) officials released the results of a preliminary study by BPA economists, estimating that electricity bills would increase an average of $2 to $5 a month if the four lower Snake River dams were breached to benefit salmon. In addition, lowering irrigation pumps behind Ice Harbor Dam could cost $20 million a year, while increased costs of transporting wheat and other commodities downriver to Portland could be about $50 million a year.

Portland Oregonian

Coho Salmon Lawsuit—

January 13, 1999

Two California environmental groups filed suit in U.S. District Court (San Francisco) seeking to force NMFS to designate Coho salmon critical habitat from Northern, CA. to Central Oregon. The groups charge that NMFS has missed a mandatory deadline for designating critical habitat for Coho salmon listed as threatened in May, 1997.

Sacramento Bee, Environment News Service

Atlantic Salmon Diseases

In late December 1998, Cornell University scientists announced that they had identified the virus detected earlier this year in Pleasant River brood stock at the U.S. Fish and Wildlife Service hatchery in North Attleboro, MA, as salmon swimbladder sarcoma.

In early January 1999, Atlantic Salmon Authority officials recommended a quarantine of the Pleasant River salmon hatchery, and the U.S. Fish and Wildlife Service decided to seek the virus in wild salmon at the Craig Brook federal hatchery, where Pleasant River fish had been held for several months.

Associated Press

INFECTIOUS SALMON ANEMIA

December 18, 1998—Canadian Labor Minister Claudette Bradshaw announced (C) $13 million in financial assistance to the province of New Brunswick to manage and control infectious salmon anemia disease affecting the salmon aquaculture industry in the Bay of Fundy. New Brunswick had requested special disaster assistance for this problem.

Emergency Preparedness Canada Press Release

NMFS PLAN WOULD BUY SALMON FISHING PERMITS

The National Marine Fisheries Services plans to give Washington state $3.5 million in federal funds for restoration of the West Coast salmon fishery, damaged by the 1995-97 floods in the Pacific Northwest. The aid package is contingent on Congressional approval of an implementation plan to restore the fishery. NMFS will use the funds to buy out commercial salmon fishing permits and thus reduce the commercial take. The fisheries service determined the salmon fishery failure was due to a resource disaster caused by environmental fluctuations that included flooding in the Puget Sound area. Furthermore, the fishery was adversely impacted by man-made elements such a hydropower, agriculture and logging practices. State figures say west coast fishery commercial landings of all species of salmon fell from a 1987-91 average of $126 million to an all-time low of $17 million in 1996.

Washington Governor Gary Locke formally requested the declaration under the Magnuson-Stevens Fishery Conservation and Management Act. The proposed permit buyback program would end fishing by salmon permit holders who surrender their permits and thus reduce competition for those who choose to keep on fishing.

The Commerce Department has authority to declare a commercial fishery failure under the Magnuson-Stevens Act, which authorizes the Secretary of Commerce to make funds available for assistance to a commercial fishery failure caused by a resource disaster of natural, undetermined or man-made causes beyond the control of fishery managers.

The aid package will include a total of $4.67 million, including $3.5 million in federal funds and a required 25 percent match from the state, or $1.17 million.

From Commerce People-Nov.- Dec., 1998

Largest Estuarine Reserve Dedicated in Alaska

On an unseasonably warm autumn day, surrounded by the Kenai Mountains, the Alaska Department of Fish and Game (ADF&G) joined with Federal, state and local officials to celebrate the state's effort to designate Kachemak Bay as Alaska's first, and the Nation's 23rd and largest National Estuarine Research Reserve (NERR).

In an example of good coming from bad, the new reserve was developed with nearly $500,000 from the criminal settlement of the 1989 *Exxon Valdez* oil spill.

The ceremony, held on National Estuaries Day, October 3, in Homer, Alaska, recognized a nearly four-year effort by the State of Alaska to establish the reserve and join the NERR system. NERR sites around the country are partnerships between NOAA and state agencies to provide opportunities for estuarine science and education.

Kachemak Bay will be the largest NERR at 365,000 acres. The reserve is biologically rich and includes many different habitat types such as glacial rivers, clear-water rivers, extensive salt marsh, and rocky inter-tidal habitat. The reserve boundary starts at the bay's mouth and includes all of its waters, as well as the Fox River Flats State Critical Habitat Area, Kachemak Bay State Park, and smaller parcels near the City of Homer.

Matt Menashes
From NOAA Report VII-December, 1998

DRIFTNETS FOR ATLANTIC SWORDFISH BANNED

NMFS, on January 27, 1999, published a final rule prohibiting the use of driftnets by U.S. vessels in the North Atlantic Ocean to catch swordfish. High bycatch of marine mammals prompted this action — in 14 days of fishing during 1998, this fishery reported 295 marine mammals were entangled.

Fed. Register, NOAA—Press Release

District Directors

Alaska, Northern
Steven K. Davis
LGL Research Associates, Inc.
4175 Tudor Centre Dr. #101
Anchorage, AK 99508
abcted@dames.com

Alaska, Southeast
Bruce Wing
P.O. Box 210265
Auke Bay, AK 99821-0265
bruce.wing@noaa.gov

Atlantic Maritime
Vacant

Arizona - New Mexico
G. Morris Southward
Department of Experimental Statistics
New Mexico State University
Box 3130
Las Cruces, New Mexico 88003
southward@nmsu.edu

California, Northern
Thomas Moore
California Dept. of Fish and Game
P.O. Box 1560
Bodega Bay, CA 94923
mooretom@msn.com

California, Southern
Kevin Hill
California Dept. Fish and Game
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, CA 92038
khill@ucsd.edu

Capital
Frank M. Panek
National Park Service
4401 N. Fairfax Dr., RM 810-D
MD-820 ARLSQ
Arlington, VA 22203
frank_panek@fws.gov

Carolina
Mark Collins
S. Carolina Dept. Nat. Res.
P.O. Box 12559
Charleston, SC 29422-2559
collinsm@cofc.edu

Florida
Thomas W. Schmidt
USDI Nat'l. Park Service
Everglades Nat'l. Pk., S. Fla. Res. Ctr.
P.O. Box 279
Homestead, FLA 33030
tom_schmidt@nps.gov

Great Lakes, South Central
Dora R. Passino-Reader
National Fish. Center
1451 Green Road
Ann Arbor, MI 48105-2897
dora_reader@usgs.gov

Gulf of Mexico, Northeast
Vacant

Keystone
Barbara E. Warkentine
1329 Balcom Avenue
Bronx, NY 10461
bewlc@cunyvm.cuny.edu

New England
John B. Pearce
Northeast Fisheries Center
166 Water Street
Woods Hole, MA 02543-1097
jack.pearce@noaa.gov

Oregon-SW Washington
John F. Palmisano
1990 NW 156th Avenue
Beaverton, OR 97006-5307
johnjpbc@aol.com

Texas
James Nance
Galveston Laboratory
SE Fisheries Science Center NMFS
4700 Avenue, U
Galveston, TX 77551
James.M.Nance@noaa.gov

Washington, NW
Vacant

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, 1329 Balcom Ave., Bronx, NY 10461, bewlc@cunyvm.cuny.edu -Secretary; Joseph Rachlin, Lehman College Bio., Bedford Park Blvd. West, Bronx, New York 10468, rachlin@alpha.lehman.cuny.edu -Treasurer. ISSN-8755-0075

FIRST CLASS

***************AUTO**MIXED AADC 285
Dr. William H. Bayliff 5
IATTC-SCRIPPS INSTITUTE OF OCEANOGRAPHY
8604 LA JOLLA SHORES DR
LA JOLLA CA 92037-1508

American Institute of Fishery Research Biologists
c/o Joseph Rachlin
Lehman College, Biology
250 Bedford Park Boulevard West
Bronx, NY 10468-1589

Address Correction Requested

FIRST CLASS
U.S. Postage
PAID
Permit No. 92
Morehead City, NC 28557

American Institute of Fishery Research Biologists

. . . BRIEFS . . .

VOL. 28, NO 2 MARCH, APRIL, 1999

Districts in Action

Great Lakes District Sponsors Seminar: Hooking Mortality and Marine Conservation

The South Central Great Lakes District of AIFRB co-sponsored an evening seminar with the Hooper Aquatic Seminar Series of the University of Michigan, School of Natural Resources, on February 23, 1999. The seminar, presented by Dr. Jeff Schaeffer, was hosted at the Great Lakes Science Center, U.S. Geological Survey, Ann Arbor, Michigan. A reception followed the seminar with a delicious array of snacks contributed by the District and the Hooper participants.

Dr. Jeff Schaeffer, Research Fishery Biologist, USGS Great Lakes Science Center, conducted this study while in his previous position on the faculty of the University of Tampa, Tampa, Florida. The title of Jeff's seminar was *"Reducing Hooking Mortality in Marine Fisheries: What Works and What Doesn't"*.

Dr. Schaeffer carried out a controlled fishing study in the Gulf of Mexico off St. Petersburg, Florida, in which volunteer anglers fished with bait using barbed or barbless hooks. Anglers captured over 500 fish representing 27 species; the most common species were sand perch, grunts, and blue runners. There were no differences in CPUE, size of catch, bait loss, or escapement between hook types, and only minor differences in species composition. Short-term mortality was not reduced because fish hooked in sensitive areas had a high probability of death regardless of hook type. However, long term mortality was likely lower for fish captured with barbless hooks because they caused less physical damage, and unhooking times were shortened significantly. Barbless hooks can be as effective as barbed hooks, offer few disadvantages for anglers, and are kinder to fish.

Submitted by: Dora Passino-Reader, Director

Editors' Note: Your district must have been busy too. Send News!

THOMPSON AWARD DEADLINE EXTENDED

The deadline for acceptance of student papers nominated for the W.F. Thompson Award has been extended until May 31, 1999. Papers should be submitted to:

Jack Pearce
W.F. Thompson Best Student Paper Award
Buzzards Bay Lab
540 Upland Ave.
Falmouth, M.A 02540

Full Details on the nomination process were given in the January-February 1999 *Briefs*.

Taylor Named Acting Dean, Administration claims another good biologist!

William Taylor, AIFRB Fellow, chairperson of the Department of Fisheries and Wildlife, has been named acting dean of Michigan State University's College of Agriculture and Natural Resources.

Taylor, an expert on Michigan fisheries, has assumed the dean's position vacated by Fred Poston, who was recently named interim vice president for finance and operations and treasurer of the university. "I'm delighted that Dr. Taylor has accepted the position," said Gray. "I'm confident that he will provide excellent leadership for the College of Agriculture and Natural Resources. I expect that he'll lead the college forward in an innovative and confident manner, and I look forward to working with him as a team to lead the college."

Taylor, a professor of fisheries and wildlife, is an internationally recognized expert in fisheries ecology, population dynamics and management. Originally from Rochester, N.Y., he received a Bachelor of Arts degree from Hartwick College in 1972, a Master of Science from West Virginia University in 1975, and a Ph.D. from Arizona State University in 1978.

"Dr. Taylor, has been among the more entrepreneurial chairpersons on campus," said Arlen LeholM, MSU

Extension director. "He has a broad understanding of agriculture and natural resources and his leadership will greatly enhance the college."

Taylor, who joined the MSU faculty in 1980, led his department through numerous changes since taking over as chairperson in 1992. In addition to strengthening the research capabilities of the department, he has fostered growth in the teaching and outreach missions as well.

Through his longtime interest in international issues in natural resource management, Taylor has helped the department develop overseas studies courses across the globe, including in San Salvador, Kenya, and Australia. These courses, in addition to on-campus courses, offer unparalleled opportunities for students studying fisheries and wildlife management.

Prior to his MSU appointment, Taylor was an assistant professor of fisheries and wildlife at the University of Missouri at Columbia.

Thomas Coon is now acting chair for the Department of Fisheries and Wildlife.

Commerce Staffers Win Global Pact To Save Sharks, Birds:

AIFRB Presence Pervasive

U.S. Department of Commerce staffers led by Terry D. Garcia, Assistant Secretary for Oceans and Atmosphere, have negotiated three international agreements scaling back world fishing fleet capacity and improving international conservation and management of sharks and seabirds.

Eighty attending countries at the United Nation's Food and Agriculture Organization consultation, agreed on a series of measures to better identify the status of, and manage, the world fishing fleet.

"There are too many fishermen chasing too few fish," said chief U.S. negotiator Garcia. "Overcapacity of the world fishing fleet is the greatest concern for the future of the ocean's marine resources. It will now be up to member nations to follow through, and implement these measures."

The FAO members also agreed on Plans of Action regarding two important conservation and management issues: sharks and seabirds. The plans describe concrete and specific steps to save dwindling numbers of these at the regional, national and global levels. Countries are to conduct assessments of sharks and seabird bycatch and, when necessary, develop National Plans of Action.

A series of international and national meetings among Commerce staff, fishing industry members, conversationists and scientists led to the U.S. position presented at the meeting.

Commerce staffers from the National Marine Fisheries Service who spent countless hours developing the U.S. position were: David Au, Michael Bailey, Kevin Chu, Jim Coe, George Darcy (AIFRB Associate), Nancy Daves, Svein Fougner, Bill Fox (AIFRB Fellow), Steve Freese, Jay Ginter; Rebecca Lent, Pamela Mace, Rich Marasco, Gary Matlock (AIFRB Fellow), Matteo Milazzo; Bruce Morehead, Kim Rivera, Gary Sakagawa (AIFRB Fellow and President), Margo Schulze, Angie Somma; John Sproul, Dale Squires, Dean Swanson, Robin Tuttle and John Ward.

NOAA, staff members Prue Fox and Andy Oliver also worked on the two-year project. Al Manville and Kent Wohl of the U.S. Fish and Wildlife Service and Stetson Tinkham of the State Department contributed to the outcome of the consultation.

From Commerce People — Jan-Feb 1999

DERISO (FELLOW) AND TUCKER (MEMBER) AUTHOR IMPORTANT NEW BOOKS

QUANTITATIVE FISH DYNAMICS

By Terrance J. Quinn II
Richard B. Deriso
New York • Oxford
Oxford University Press, 1999

This book is a synthesis of quantitative models of fish population dynamics and methods for fisheries stock assessment that emphasizes rigorous development of models and methods and the use of statistical procedures for linking fisheries data to differential and difference equations of population dynamics. The last 20 years have seen major advances in the analysis of fish population data, and the 1980's and 1990's have been a particularly energetic time period of creative developments. We foresee that further methodological advances are likely to occur, particularly in the treatment of complexity in data and models and of uncertainty and risk in fisheries management decisions. Nevertheless, we believe that it is timely to attempt to unify what has already been accomplished. This book is directed toward upper-division and graduate-level courses in fish population dynamics and stock assessment.

Dr. Richard B. Deriso is Chief Scientist of the Tuna-Billfish Program at the Inter-American Tropical Tuna Commission in La Jolla, California.

MARINE FISH CULTURE

By John W. Tucker, Jr., Ph.D. (AIFRB Member),
Head of the Fish Culture Department, Harbor Branch of Oceanographic Institution:
Associate Professor, Florida Institute of Technology
Kluwer Academic Publishers, 1998

With the depletion of wild fish stocks by factors such as overfishing, habitat degradation, pollution, and red tides, the pressures and incentives for commercial farming of marine food and aquarium fish have increased dramatically. Concurrent with that trend has been an increase in the experimental use of live marine fish in various basic and applied sciences, for example, in developmental, ecological, and toxicological research.

MARINE FISH CULTURE is the first comprehensive reference and textbook on this subject and provides information on more than 870 species in 129 families. The book is the product of the author's 27 years of research and teaching in fish culture and biology. Approximately 12,000 references through June 1998 were screened in writing this work, and more than 4,000 are included in the text.

MARINE FISH CULTURE covers all the major topics necessary for raising marine fish, including overviews of commercial production statistics, water sources, water treatment, rearing units, energetics, health, and handling; detailed reviews of fish characteristics relative to rearing, the rearing environment, reproduction, nutrition of larvae, and nutrition of juveniles and adults; and reviews of current rearing knowledge for food, bait, and ornamental marine fish, by family.

Beginning with home aquariums in 1971, John Tucker has raised 40 species and hybrids of fish. He has degrees in forestry, zoology (development of marine fish larvae), and marine science (energetics of marine fish eggs and larvae). He has done fish culture research at the National Marine Fisheries Service Laboratory in Beaufort, North Carolina, and government laboratories in Australia, the Bahamas, Bermuda, Cayman Islands, Guam and Palau. His work has focused on spawning, larval rearing, nutrition, and health of marine fish, with the goal of improving technology for both farming and stock enhancement. He has been a technical advisor for many research and commercial projects. He was Fulbright Professor for a year at the University of the West Indies in Kingston, Jamaica, and has taught nine marine fish culture courses at the Florida Institute of Technology, Bermuda Biological Station for Research, University of the West Indies, National Polytechnic Institute (Mexico), and University of Puerto Rico. He also has made scientific visits to Belize, Canada, England, Hong Kong, Japan, Martinique, New Zealand, Okinawa, Saudi Arabia, Singapore, St. Croix, St. Thomas, Taiwan, Thailand, and Wales. He is a scuba diving instructor for the National Association of Underwater Instructors and the British Sub-Aqua Club and has spent hundreds of hours studying marine fish under water. Since, 1983, he has conducted a pioneering research program at Harbor Branch Oceanographic Institution and since October 1987, has been head of the HBOI Fish Culture Department.

John W. Tucker, Jr.
316 13th Avenue • Vero Beach, Florida 32962
jwtuckerfish@hotmail.com

THE LITTLE ENGINE THAT COULD

- An editorial

It has been my observation that when trains stop moving the halt is almost always caused by a cessation of pulling by the locomotive. While recognizing the danger in simplistic analogies I believe that a similar lack of impetus from the front of the train besets some of our AIFRB districts. In assembling the issue of *Briefs* that contains the annual district reports I too often find that the activity level has failed to meet even the minimal standards required by our bylaws. It is the duty of the District Director to call at least one biennial meeting or otherwise arrange for election of a new vice-director to ensure the succession of leadership for the district. Sometimes even this elementary requirement is unmet. Locomotive stalls, district stagnates. No meetings, no activity, no interest by the members.

If we accept the premise that the AIFRB has an important role in our profession, a role distinct from the AFS, an inactive district is unacceptable, an inactive leader abhorrent. How do we revitalize a district in the doldrums, impart motion to the stalled train? The answer is easy and the solution requires but one, 1, uno, member that cares in a district. One member can make a difference because our membership is analogous to the electromotive trains used for subways and commuter lines in that every car is self propelled and may when necessary proceed on its own without regard to disfunction at the front.

That one member can initiate the two activities that I believe ought to constitute the minimal level of activity for a district - an annual meeting and an awards program. The meeting is easy! Call one if your Director will not do it. No one will complain! The cost? Nothing, or if you want to be fancy and have a meal, make it hot dogs in the back yard. Don't have money for hot dogs? Call Sakagawa and get him to

(Continue page 4...)

(...Little Engine, Cont.)

tap the treasury or if he won't pop, call me. I'll contribute personally. Do not book a restaurant and obligate yourself for a minimum number of meals as one unfortunate organizer did. Get a speaker, for free. Ought to be easy. I can't get most of my biologist buddies to shut up!

Do some business. What business? For starters how about the awards program mentioned above. What can do more to promote professionalism than to reward it with recognition. I'm not sure if any districts have an awards program now but I do not recall any. I'm pretty certain there are no rules against such a program. Best paper from the district, best new technological innovation, most courageous stand in the face of bureaucratic inanity, distinguished service, almost distinguished service, etc.

And what if you are the only attendee at the meeting? Well first you'll have plenty of hot dogs and then the most uncomplicated business meeting that you've ever attended. In a decade of parliamentary wrangling on a state board I was reminded many times that a quorum always exists unless someone challenges its existence. So be that quorum. Choose some worthies for reward. Get a woodworker friend to make up a few walnut, myrtle, mahogany, oak, etc., plaques for free. Jim Sykes in Morehead City, NC has made this kind of contribution many times. A little engraved brass plate from your local jeweler is inexpensive and will complete the award nicely. Again I'm sure money can be found if your treasury is shy.

Is all of this civil disobedience? Sure is! But it beats the daylights out of civil inactivity. Will you get complaints? I hope so. Because once you have complaints you have people that care and the district is, with nurturing, on the road to vitality again. And to start it all - only one member that really cares. As many of us remember from a famous children's book, the little engine that could.

The Editor

Recent Losses— Dr. Gordon Gunter *(Fellow 1961, Emeritus 1979)*

Deceased December 1998

Gordon Gunter's career as a marine biologist and leader in marine research and education has spanned more than 60 years. Dr. Gunter was appointed director of the Gulf Coast Research Laboratory in 1955 and served as director until 1971. He continued his association with the Laboratory as professor of zoology and director emeritus until his retirement from active service with the State of Mississippi in 1979 at the age of 70.

A native of Natchitoches Parish, Louisiana, Dr. Gunter earned his B.A. from Louisiana State Normal College and his M.A. and Ph.D. from the University of Texas. He has served as a marine biologist with the Texas Game, Fish and Oyster Commission, an instructor in physiology at the University of Texas; a research associate, research scientist, acting director and director of the University of Texas Institute of Marine Science at Port Aransas, zoologist for the Louisiana Department of Conservation, junior aquatic biologist for the Corps of Engineers, visiting professor of zoology, Marine Laboratory, University of Miami; and senior marine biologist, Scripps Institution of Oceanography. He also worked with the United States Bureau of Fisheries in shrimp and oyster investigations and the commercial oyster industry.

Arriving at the Gulf Coast Research Laboratory (GCRL) as it began its eighth year, Dr. Gunter moved the marine laboratory from a predominantly summer biological field program to a year-round research facility, and much of the early marine research of the northern Gulf of Mexico occurred under his leadership. Dr. Gunter began his tenure with a staff of one scientist and two part-time support personnel. By the time of his retirement, GCRL programs were conducted by approximately 100 senior scientists, technical staff and support personnel. Major laboratory buildings in use today were constructed during Dr. Gunter's tenure. In 1961 he established and served as the first editor of the laboratory's journal, *Gulf Research Reports,* focusing on the marine science of the Gulf of Mexico and adjacent waters. *Gulf Research Reports* continues publication today.

Dr. Gunter has published over 250 scientific papers, articles, reviews, and other publications on biological and conservation subjects. His scientific articles are cited in 79 scientific books printed in English, German, Spanish, French and Japanese. He also contributed to his profession through numerous appointments to regional, national, and international committees and advisory panels, editored scientific publications, and continuing memberships in a spectrum of professional scientific societies, including charter membership in the World Mariculture Society. He served as president of that and other societies and academies.

In August 1997, GCRL fisheries biologists presented the American Fisheries Society's half-century membership award to Dr. Gunter at his home. Following the ceremony, a biologist and former employee characterized Dr. Gunter as one of the great naturalists living today. He is interested in every living thing, how each species affects other species, how natural processes affect them, and how everything is connected.

Dr. Gunter is survived by his wife, Frances and five children; Charlotte Wood Evans, Miles Gordon Gunter, Patrick Gunter, Edmund Osbon Gunter, and Harry Allen Gunter.

Ralph Parks Silliman

(Fellow 1958, Emeritus 1997)

Ralph Parks Silliman, a Past-President of AIFRB, died in Seattle, WA on February 25, 1999. His publications on population dynamics and the California sardine during the 1940's established international recognition as evidenced by the consistent citation of his papers by contemporaries in that field: Herrington, Rounsefell and Everhart, Ricker, Beverton and Holt, LeCren and Holgate, and Gulland to name a few. A citation search (ISI: Institute for Scientific Information) shows these papers are still often cited, as is his research on experimental populations of guppies that began in the 40's and was resumed in the 60's.

Ralph graduated cum laude when he received his B.S. degree at the University of Washington in 1936 and was elected to Sigma Xi. Later in his career he also attended Duke University, the US Department of Agriculture Graduate School, American University and did additional work at the University of Washington in the 1960's.

Ralph's career was with the National Marine Fisheries Service and its predecessor agencies — the U.S. Bureau of Fisheries, U.S. Fish and Wildlife Service, U.S. Bureau of Commercial Fisheries. When he worked on the California Sardine from 1938 - 1945, the lab was located at Stanford University. He conducted research on salmon in Seattle, WA from 1945 until 1949 when he went to Washington DC as the Chief of the Section of Anadromous Fisheries. Later, he was also given the responsibility of the Shellfish and Inland Fisheries Sections and in 1962 became Assistant Chief of the Division of Biological Research. Even with a heavy administrative load, Ralph continued to do research and published papers on tuna, salmon, and guppies as well as work on fishing gear, stock assessment, analog computer models, and growth. He moved back to Seattle in 1965 and devoted full time to his research on experimental fish populations until he retired from the federal service in 1973.

He received awards for performance, leadership, and his scientific contributions during his career in government and was President of the American Institute of Fishery Research Biologists in 1965-1966. He became a Fellow of AIFRB in 1958. He also served as Associate Editor for the American Fisheries Society and was a member of the American Institute of Biological Sciences.

Ann, Ralph's wife for 61 years, survives as does his daughter, Judy Ferguson, three grandchildren and one great grandchild.

Ralph 's colleagues remember him as a gentleman and a scholar.

Bernard E. Skud

Recovery of Burrowing Mayflies in Lake Erie

By Thomas A. Edsall (Fellow)
USGS, Biological Resources Division, Great Lakes Science Center, Ann Arbor, MI

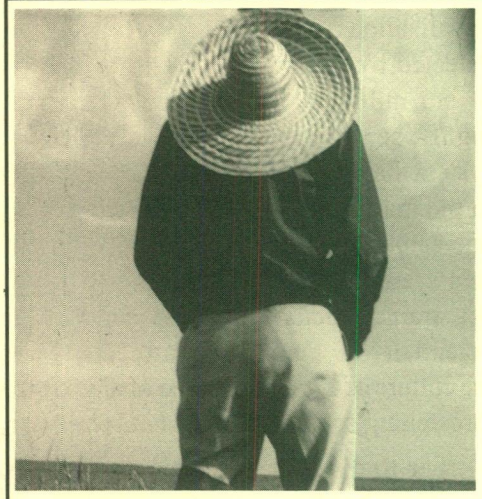
Burrowing mayflies (Hexagenia) are distributed widely in North America, but are abundant only in unpolluted, soft-bottomed, mesotrophic habitats in eastern and central North America. The nymphs are detritivores and highly active burrowers, typically penetrating the substrate to depths of 5-10 cm. Where they are abundant, they are important both as bioturbators of sediment and as trophic integrators that link detrital energy resources directly to fish. In western Lake Erie, Saginaw Bay (Lake Huron), and Lake St. Clair the growth rate of yellow perch (*Perca flavescens*), an economically valuable species, is largely controlled by the abundance of burrowing mayflies.

Major declines in the abundance of burrowing mayflies and their extirpation in some Great Lakes habitats where they were historically abundant have been linked to eutrophication and low dissolved oxygen in bottom waters, and more recently to pollution of sediments by metals and petroleum products. In western Lake Erie, nymphs were abundant in the 1930's and 1940's, but an extensive mortality occurred in 1953. The nymphal population recovered in 1954, but virtual extinction followed by the early 1960's Water quality improvements began in the 1960's but the nymphal population failed to recover. Reductions of petroleum products and metals in the surficial sediments to levels tolerated by the nymphs occurred by the early 1990's, widespread recovery of the nymhpal population followed by the mid-1990's, and the population is predicted to return to historical levels of abundance by the year 2000.

The recovery of burrowing mayflies in western Lake Erie is a signal event which shows that properly implemented pollution controls can bring about the recovery of a major Great Lakes mestrophic ecosystem. The recovery also contributes to our practical understanding of the behavior of degraded and restored ecosystems. The decades-long absence of burrowing mayflies in western Lake Erie did not permanently change the capacity of the system to support them. During their absence, burrowing mayflies were not irreversibly replaced by other species, as might have been predicted by some ecological theories. Indeed, apparently only the recovery of the degraded habitat and the availability of one or more neighboring source populations of burrowing mayflies were sufficient to permit them to return to their former long-term level of abundance throughout the western basin. Furthermore, with their full recovery, the burrowing mayflies in western Lake Erie will probably reclaim their functional status as the primary agent in sediment bioturbation and the major trophic integrator directly linking the detrital energy resource to the economically valuable percid community. And finally, the recovery of burrowing mayflies in western Lake Erie also helps demonstrate their potential value as an indicator of ecosystem health. The massive swarms of winged adults that are typical of healthy, productive burrowing mayflies populations in areas of historical abundance in the Great Lakes are again visible to the public who can use them to judge the success of water pollution control programs and the health of Great Lakes aquatic ecosystems.
(If they aren't' too busy complaining about all the bugs! —Editor)

WHO'S WHO IN AIFRB —

N.C. "Red" Able



N.C. "Red" Able. Persistent requirements of personal and national security preclude portraying Red's face, but he hopes that this back view will convince old acquaintances that he is still fit and well.

It is a pleasure that I can now tell at least a small part of a fascinating story too long hidden behind a curtain of clandestine activity and international conflict. The career of my longtime friend N.C. "Red" Able is so unlike that of most fishery biologists that it borders on the unbelievable. Red was born and received undergraduate training in upstate Mississippi, but thereafter Red's life immediately diverged from the then normal path of a domestic graduate school or employment with a public environmental organization. Instead, Red chose to pursue graduate education in aquaculture at several institutions in southeast Asia and in Brazil. It was this experience in the tropics that led to his recruitment by the U.S. Department of Defense and initiated a fascinating and probably unique career in which the potential of fish and fishery related organisms as implements of biological warfare was explored and developed. Eventually Red's career would involve appointments with all of the major agencies involved in covert operations including the Central Intelligence Agency and the National Security Agency as well as the Defense Department.

The list of Red's many fascinating assignments is too long to develop fully here, and many of his projects are still locked in the bounds of secrecy. However the few that can be described give a clue to the extraordinary dimensions of his career. An early project was the development of aquaculture techniques for the body-invasive South American catfish, the candiru, to be released in the river-rich arena of the infamous Southeast Asian war. The object was the debilitation of enemy troops, but, of course, the candiru is not selective as to the political affiliations of potential victims, and Red headed a corollary project developing protective devices for allied personnel. Unwilling to use volunteers to test versions of this first Fish Excluding Device - FED 1 (Red's use of the term predates modern bycatch reduction devices by two decades) Red himself was the guinea pig for several unsuccessful versions and as a result was awarded a special issue Purple Heart for his wounds and dedication. Irreverent wags have suggested that the heart was not the appropriate organ to recognize in this particular case. A less fruitful effort was an attempt to employ piranhas in Vietnam. Although Red's culture techniques were highly successful, the erratic feeding behavior of *Serrasalmus* made them an unreliable ally. Later Red would be involved in a fascinating project in which various sciaenids were cultured and, by using their extremely acute

bioaccoustic senses, were imprinted to respond to the audio signatures of Eastern bloc nuclear submarines with vocalizations of their own. These vocalizations were in turn easily detected by the hydrophone arrays of our military. The result was a highly sensitive bioamplification system that was not only impervious to the marine environment but was one actually favored by it. One of Red's last projects was development of a strain of *Lactobacillus* that could potentially be employed to impact the culture of *Chanos Chanos* of any threatening southeast Asian entity.

For Red's skill, dedication and sacrifice, he has received many awards including one from the government of France, which Red jokingly calls his "Croix du Gar", the Cambodian Joint Award for accomplishment in science and defense, and the prestigious North Award from our own National Security Agency.

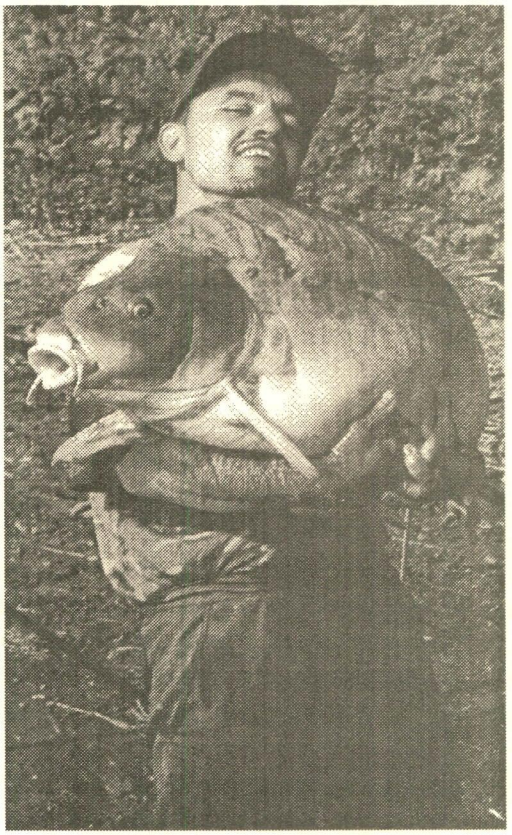
An exotic career like Red's does not come without a price. His extensive foreign assignments, the high level of security involved, and the frequent threat of physical danger have caused Red to forego the pleasures of a family, and his list of close friends was restricted to a few of us of long-standing acquaintance. Even we were subjected to intensive security screening. Red has attended many scientific conferences in order to maintain his technical skills at a high level, but he necessarily avoided the social aspects of such meetings. Like any good covert operative Red was an expert at being anonymous and during presentations of papers would be just another faceless body somewhere near the back of the room.

Although social interaction has been denied Red by his career, he has found much solace in music. He is a master of the highland pipes, but in the presence of others rarely plays. He instead follows the injunction of Dr. Samuel Johnson who remarked that "A gentleman is a person who knows how to play the bagpipes..... but doesn't!"

There is a fascinating book hidden in the life of Red Able. I hope that now, since he is in retirement and security strictures are easing—that the book will become a reality.

Submitted by D. S. Eave

"The Carp is the Queen of Rivers, a stately, a good, and a very subtil fish....." Izaak Walton, the Compleat Angler, 1653



Christian Blademair appears quite chummy with his all-tackle record common carp caught last May at Lake Raduta, Romania. Baldemair was wading off shore when he hooked the 82 lb. 3 oz. carp.. He defeated a record of 75 lb. 11 oz. set in May 1987 by Leo van der Gugten in France.

From International Angler —March - April, 1999

Ontario Leech Ban

On Feb. 18, 1999, MN Governor Jesse Ventura telephoned U.S. Trade Representative Charlene Barshefsky, claiming that new Ontario fishing regulations were punitive and harmful to MN-based anglers and the states tourism industry, possibly violating free trade agreements including NAFTA.

(Duluth News-Tribune)

Hudson River Striped Bass

In mid-February 1999, NY Dept. of Environmental Conservation scientists announced that polychlorinated biphenyl (PCB) contamination in lower Hudson River striped bass had been measured at levels low enough to consider allowing these fish to be eaten, for the first time since human consumption was banned in 1976. Fish fillets, collected in spring 1997 south of Poughkeepsie, averaged 1.06 parts per million (PPM) PCBs — about half the federal limit of 2 ppm — with only 3.3% of the samples exceeding the federal limit. However, striped bass further upstream and other fish species (largemouth bass, catfish, eels) still exceed the federal limit for PCBs)

(New York Times)

MEETINGS OF NOTE

CHARLESTON BUMP COLLOQUIUM SECOND ANNOUNCEMENT

29-30 July 1999

The Charleston Bump is a major concern in regard to the debate on the impacts of commercial and recreational fishing on each other and on the populations of highly migratory fishes. Because there is a concentration of longline fishing effort near the Bump, it has been proposed that the Charleston Bump be closed to fishing, at least seasonally, to protect what is thought to be an important aggregating and/or nursery area for highly migratory species such as sword fish. Fisheries management measures such as closure of the grounds require thorough knowledge of the grounds and the role of specific habitats in the life history of the species being managed. In this regard, it would be prudent to review the state of our knowledge regarding the geology, oceanography, biology and fisheries of the Charleston Bump and associated oceanographic features. Such a review would identify gaps in our knowledge, and provide direction for future studies of the Charleston Bump.

To facilitate this review of our knowledge, a colloquium is planned for 29-30 July 1999 in Charleston, South Carolina, to bring together investigators and other parties interested in the Charleston Bump and the oceanography and oceanic fisheries of the southeastern U.S. The colloquium will consist of presentations of new research, review papers, previously published material that might be worth revisiting in light of recent developments, methods papers, or other presentations relevant to the topic.

For additional information, go to:
http://www.dnr.state.sc.us/marine/cbumpc.html

ECOLOGICAL SOCIETY OF AMERICA, 84TH ANNUAL MEETING

"Legacies, Landscapes, and Limits: Bridging Borders"
8-12 August 1999
Riverpark Convention Center
Spokane, Washington

SECOND WETLANDS REGULATORY WORKSHOP

November 2-5, 1999
Holiday Inn on the Boardwalk Atlantic City
New Jersey

The workshop will provide a forum for the free exchange of ideas between all interested parties. In addition, the workshop will serve to increase dialogue and foster partnerships between federal, state, and local regulatory agencies as well as the regulated community.

Representatives from federal, state, and local governments, the private sector, and academia are invited to submit abstracts. Abstracts may pertain to any aspect of tidal and non-tidal wetlands. Based on the abstracts submitted, a comprehensive agenda will be developed. Points of interest expressed by the participants at the first conference have identified topics for this workshop.

Abstracts are due by May 22, 1999. Abstracts must be submitted as a WordPerfect (Ver. 5.1 or higher) document or in a ASCII text format. Abstracts must be submitted on a 3 ½" disk, unless electronically submitted. Also, please include a cover letter with the following information or your abstract will not be reviewed: title, presenting author, contact author (if different), address, daytime phone number, and presentation preference (oral and/or poster).

For Information:
Ralph Spagnolo (3ES30)
Us Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
(215) 814-2718 or Fax (215) 814-2783
or e-mail file to:
spagnolo.ralph@epamail.epa.gov

National Symposium on CATCH AND RELEASE *in Marine Recreational Fisheries*

December 5-9, 1999
Virginia Beach Resort Hotel & Conference Center,
Virginia Beach, Virginia

Sponsors:

- National Sea Grant Office
- American Fisheries Society
- National Marine Fisheries Service
  (Office of Intergovernmental and Recreational Fisheries)
- Sea Grant Marine Advisory and Extension Programs
  Virginia, New York, North Carolina, Georgia, California
- Atlantic States Marine Fisheries Commission
- U.S. Fish and Wildlife Service
- American Sportfishing Association

Format for Abstracts and Deadline

May 15, 1999

All abstracts for contributed papers, presentations, and posters must be submitted electronically using the American Fisheries Society Annual Meeting format. Immediately following the abstract body, specify the topic which best fits the concept of your abstract and your preference for oral presentation, poster presentation or oral presentation preferred/poster acceptable. Abstracts must be received *no later than May 15, 1999.*

The program committee will review and judge the abstracts for inclusion in the symposium and notify authors as to their presentation status.

A proceedings document will be published by the American Fisheries Society and will include extended abstracts and also a limited number of peer-reviewed research papers.

General Topics for Contributed Presentations and Posters

- Hook Release Mortality in Marine Fisheries
- Catch and Release in Marine Fisheries Management
- Participation of Marine Anglers in Catch and Release Issues
- Sportfishing Industry Involvement in Marine Catch and Release
- Conflicts in Marine Fisheries Regarding Catch and Release
- Education-Outreach on Catch and Release in Marine Fisheries (private-boat, charter-party boat, pier, surf-shore fishing modes)
- Marine Anglers' Conservation Ethic, Improving Catch and Release Effectivenesss in Marine Fisheries
- Other (please specify)

Who to Contact

Submit abstracts via e-mail to Jon A. Lucy.
(lucy@vims.edu)

Format All submissions in:

- WordPerfect (version 8.0 or earlier),
- Word (version 6.0 or earlier), or
- ASCII

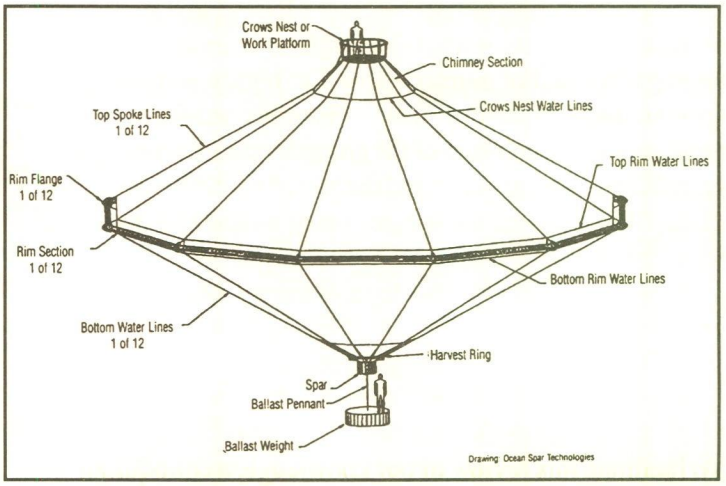
Use a standard 12-point font and left justification only. If you do not have access to e-mail, submit a 3.5" floppy disk or, as a last resort, a hard copy to:

Jon A. Lucy
Catch and Release Symposium
Virginia Institute of Marine Science
P.O. Box 1346, Gloucester Pt., VA 23062
Phone 804/684-7166

UNH TO TACKLE FISH FARMING IN OPEN OCEAN

Portsmouth, New Hampshire - Off the coast of New Hampshire near the Isles of Shoals, University of New Hampshire (UNH) researchers will launch an aquaculture demonstration project in May to explore the biological, engineering, and economic feasibility of raising summer flounder and blue mussels in the open ocean.

Five miles/eight kilometers off the Isle of Shoals, engineers will erect two net pens in 180-foot/55-meter deep waters. The pens are especially designed for open ocean

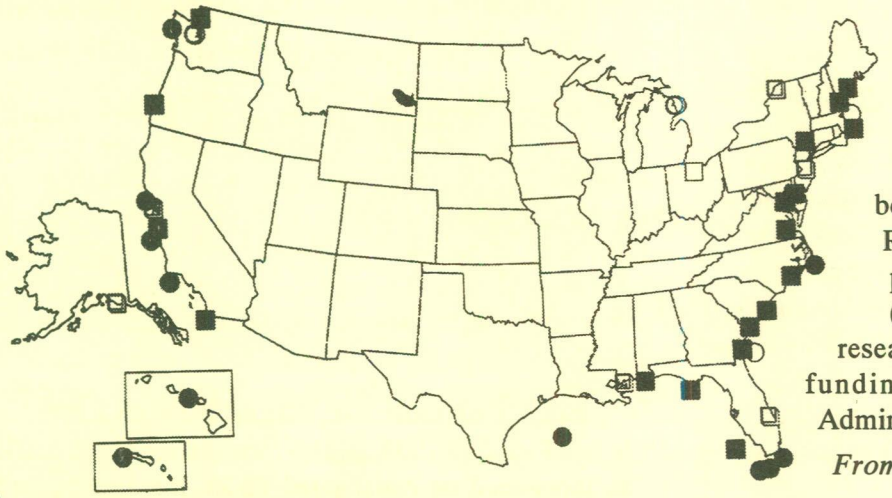


conditions. One will be submerged at a depth of 50 to 66 feet/ 15 to 20 meters; the other will be partially submerged, so researchers can study how both systems work. In June, each will be filled with about 3,000 summer flounder now being reared at GreatBay Aquafarms in Portsmouth. Mussels will be grown on two submerged longlines near the finfish cages.

Project organizers hope the flounder will reach market size by early November so they can be harvested before cold weather sets in. "They're not an ideal species for us because they won't take the winter temperatures that we expect here," said UNH Zoology Professor Hunt Howell. Summer flounder are being used because they are available, but, he said, "Our expectation is we'll switch species as time goes on."

"This is a relatively new species for aquaculture." Said George Nardi, President of GreatBay Aquafarms. "We're not 100 percent sure what to expect after they're stocked out there."

From Gulf of Maine Times—Spring 1999



Distribution of National Marine Sanctuaries and Reserves

Map (left) shows NOAA's National Marine Sanctuaries (solid boxes), National Estuarine Research Reserves (solid circles), and proposed sanctuaries and reserves (clear). Both the sanctuaries and research reserve programs are in line for funding increases as part of the Administration's Lands Legacy Initiative.

From NOAA Report February 1999

NOAA's Sanctuary Divers Jump In to Study Elusive Hammerheads

Nobody knows where they're coming from or where they're going. But, come March, the waters of NOAA's Flower Garden Banks National Marine Sanctuary are aswirl with schools of scalloped hammerhead sharks, numbering in the hundreds.

In the middle of this swirling mass of nomadic sharks, some measuring eight to 10 feet long, will be NOAA sanctuary staff and researchers, who depend on the theory that schooling subadult and adult hammerheads are not interested in feeding.

"About the most we know is the sex of the sharks. The male's claspers, or dual penises, are very obvious in the adult animals," says Emma Hickerson, research coordinator for the sanctuary.

Divers in this annual study have yet to observe females or feeding or mating activity.

Discovering why the hammerheads return year after year to the underwater gardens 100 miles off the coasts of Louisiana and Texas may entail fitting several with radio transmitters or even "critter cams."

Nonetheless, Hickerson and other divers, including a diver from National Geographic Television, plan to swim even closer to photograph them, within 20 feet of these graceful but powerful sharks.

In some locations where hammerheads are known to school, divers have resorted to breathing equipment that does not produce bubbles since, Hickerson notes, "Sharks do not seem to like the bubbles."

In addition to hammerheads, the sanctuary staff hopes to observe other species seen during the winter months — tiger sharks, sand bar sharks, spinner sharks and schooling spotted eagle rays.

Emerging from the depths of the Gulf of Mexico like oases in the desert, these northernmost coral reefs of the Flower Garden Banks are home to 200 species of fish and 400 varieties of invertebrates.

The sanctuary is now a premier dive destination. *Scuba Diving Magazine*, in a recent issue, writes that "for recreational divers, the Flower Garden Banks has it all," ranking the Banks among the top 10 overall dive destinations in North America.

From— NOAA Report, March 1999

BENEFITS OF GREAT AMERICAN FISH COUNT ADD UP FOR COASTAL MANAGERS

Coastal resource managers challenged to promote public education and research marine habitats may find a common solution in the Great American Fish Count. This nationwide program provides a fun, educational activity for the public and research data for managers.

Ed Cassano, manager of the Channel Islands National Marine Sanctuary off the coast of Santa Barbara, California, described the program as "very powerful. We're engaging a volunteer force in the collection of data that serves resource managers. This is providing long term monitoring in an area of the marine environment that is hard to access with traditional monitoring methods."

The program involves training volunteer scuba divers and snorkelers to conduct a standardized visual census during the month of July. It began in 1992 when a small group of recreational divers and marine biologists from the Channel Islands

National park conducted a visual fish census modeled after the Audubon Christmas Bird Count. In 1994, the Channel Islands Marine Sanctuary joined the program and helped develop training materials and coordinate the event. Today the Great American Fish Count is a partnership among the American Oceans Campaign, Reef Environmental Education Foundation (REEF), and NOAA's National Marine Sanctuary Program. Six Sanctuaries served as dive sites in 1998.

For more information on the Great American Fish count, contact Jennifer Dianot at (202) 544-3526, or e-mail her at: aocjd@wizard.net.

From—Coastal Services 2(1) January/February 1999

SALMONEWS

Coho Plan Unveiled as Appeal Is Dropped:

Umpqua Opinion Challenged: Dam Removal Sought Oregon Governor John Kitzhaber published a new executive order in January that orders all state agencies to do whatever they must to save all species of salmon. The order comes partly in response to Legal Defense Fund litigation brought by attorneys Mike Sherwood and Claudia Polsky that forced the National Marine Fisheries Service to add the coho salmon to the list of threatened and endangered species last summer. NMFS and the state of Oregon had appealed the court order to list the fish, but recently dropped the appeal, saying that they can live with the listing after all. A key feature of the lawsuit was the plaintiffs' argument that a voluntary, speculative plan put forward by Oregon did not satisfy the Endangered Species Act. With the current turn of events, federal protections remain in place as the state moves decisively forward to protect and restore not only coho but also all species of salmon in Oregon's waters.

Earlier Legal Defense Fund litigation achieved federal protection for the Umpqua cutthroat trout, an anadromous cousin to the salmon, and forced consultation on two dozen timber sales and curtailing of grazing. Now, the National Marine Fisheries Service has issued biological opinions that resurrect a dozen of the timber sales without adequate protection for the cutters. Staff attorney Patti Goldman is suing the National Marine Fisheries Service on behalf of the Coast Range Association, Umpqua Watersheds, Oregon Natural Resources Council, Institute for Fisheries Resources, Pacific Coast Federation of Fishermen's Associations, and Headwaters.

Finally, the effort to demolish the salmon-killing Savage Rapids Dam on the Rogue River in Oregon has become a kind of David and Goliath affair, with David as the bad guy. All the major players—environmentalists and fishermen (represented by Sherwood and Polsky), and federal and state agencies — want the dam to go. Only the Grants Pass Irrigation District wants to keep it. Negotiations have dragged on for weeks, and the matter may yet wind up in court.

From—In Brief, EarthJustice Legal Defense Fund, Winter 1999

ESA Petition for Puget Sound Fish

In late February 1999, NMFS received a petition to list as threatened or endangered under the Endangered Species Act 18 species/populations of marine fishes in Puget Sound and to designate critical habitat for each. Petitioned species include Pacific herring, Pacific cod, walleye pollock, Pacific hake, and rockfishes.)

(Personal communication)

Grand Coulee Dam Study

In late February 1999, the World Commission on Dams, meeting in Capetown, South Africa, decided to include Grand Coulee Dam on the Columbia River in an independent study, due to be completed in June 2000, of 10 major world dams for impacts on people, the environment, and economies as well as impacts on sustainable development.)

(Environment News Service)

St. Lawrence River Mercury Contamination

On Feb. 25, 1999, Health Canada, the Quebec Dept. of Health, and the Montreal regional health board released results of a 5-year, C$1 million study indicating that levels of mercury and other contaminants such as PCSs and DDT in the bodies of Montreal-area fishermen were lower than previously measured. Environmentalists disputed the study results, and pointed to contradictory results of a study published in the August 1998 issue of the journal NeuroToxicology.)

(Montreal Gazette, Canadian Press)

District Directors

Alaska, Northern
Steven K. Davis
17508 Toakoana Way
Eagle River, AK 99577
ancskd@dames.com

Alaska, Southeast
Bruce Wing
P.O. Box 210265
Auke Bay, AK 99821-0265
bruce.wing@noaa.gov

Atlantic Maritime
Vacant

Arizona - New Mexico
G. Morris Southward
College of Agri & Home
Eco. Statistics & Res. Inst.
New Mexico State University
Box 3130
Las Cruces, New Mexico 88003
southward@nmsu.edu

California, Northern
Thomas Moore
California Dept. of Fish and Game
P.O. Box 1560
Bodega Bay, CA 94923
mooretom@msn.com

California, Southern
Kevin Hill
California Dept. Fish and Game
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, CA 92038
khill@ucsd.edu

Capital
Frank M. Panek
National Park Service
4401 N. Fairfax Dr., RM 810-D
MD-820 ARLSQ
Arlington, VA 22203
frank_panek@fws.gov

Carolina
Mark Collins
S. Carolina Dept. Nat. Res.
P.O. Box 12559
Charleston, SC 29422-2559
collinsm@cofc.edu

Florida
Thomas W. Schmidt
USDI Nat'l. Park Service
Everglades Nat'l. Pk., S. Fla. Res. Ctr.
P.O. Box 279
Homestead, FLA 33030
tom_schmidt@nps.gov

Great Lakes, South Central
Dora R. Passino-Reader
National Fish. Center
1451 Green Road
Ann Arbor, MI 48105-2897
dora_reader@usgs.gov

Gulf of Mexico, Northeast
Vacant

Keystone
Barbara E. Warkentine
1329 Balcom Avenue
Bronx, NY 10461
bewlc@cunyvm.cuny.edu

New England
John B. Pearce
Northeast Fisheries Center
166 Water Street
Woods Hole, MA 02543-1097
jack.pearce@noaa.gov

Oregon-SW Washington
John F. Palmisano
1990 NW 156th Avenue
Beaverton, OR 97006-5307
johnjpbc@aol.com

Texas
James Nance
Galveston Laboratory
SE Fisheries Science Center NMFS
4700 Avenue, U
Galveston, TX 77551
James.M.Nance@noaa.gov

Washington, NW
Robert (Bud) Burgner
University of Washington
Fisheries Research Institute
Box 357980
Seattle, WA 98195-7980

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, 1329 Balcom Ave., Bronx, NY 10461, bewlc@cunyvm.cuny.edu -Secretary; Joseph Rachlin, Lehman College Bio., Bedford Park Blvd. West, Bronx, New York 10468, rachlin@alpha.lehman.cuny.edu -Treasurer. ISSN-8755-0075

FIRST CLASS

American Institute of Fishery Research Biologists
c/o Joseph Rachlin
Lehman College, Biology
250 Bedford Park Boulevard West
Bronx, NY 10468-1589

Address Correction Requested

FIRST CLASS
U.S. Postage
PAID
Permit No. 92
Morehead City, NC 28557

**********AUTO**MIXED AADC 285
Dr. William H. Bayliff 5
IATTC-SCRIPPS INSTITUTE OF OCEANOGRAPHY
8604 LA JOLLA SHORES DR
LA JOLLA CA 92037-1508

American Institute of Fishery Research Biologists

. . . BRIEFS . . .

VOL. 28, NO 3 MAY-JUNE, 1999

SAKAGAWA INVITES ALL TO BOARD OF CONTROL MEETING
August 28-29, 1999 Charlotte, NC

President Gary Sakagawa invites all interested Members to attend The Board of Control Meeting and Reception in the Adam's Mark Hotel, Charlotte, NC beginning on August 28 (Saturday) at 8:00 a.m., and ending on August 29 at about 4:00 p.m. An hour after the end of the BOC meeting on August 29, the Institute will sponsor a reception in the Hotel for members, friends and AFS meeting participants. Board members are reminded that their presence at this reception is encouraged. It is an opportunity for the Board to meet the membership and to promote the Institute. This reception is tentatively scheduled for 5:00-6:30 p.m. or just before the AFS welcoming reception.

Our meeting host and contact for local arrangements is the Carolinas District. Robert Dixon, District Director, is directing the local arrangements in cooperation with Barbara Warkentine and John Merriner.

Gary wishes to alert members to several matters that he plans to raise at our Board meeting. These include: 1) Our driving or steering of the Institute. 2) Cost control of allowance for BOC meeting. 3) Financial support for districts. 4) AIFRB meeting in 2002. 5) Shorten AIFRB to FRB. 6) Spin-off a subsidiary charitable unit.

DRAFT AGENDA
1999 BOARD OF CONTROL MEETING

1. Call to Order by the president, 0800, Saturday 28, August, 1999
2. Review and Adoption of the Agenda
3. Introductions
4. Approval of Minutes of 1998 AIFRB BOC Meeting, Hartford, Connecticut
5. Treasurer's's Report (Rachlin)
6. Secretary's Report (Warkentine)
7. Awards
   a. W.F. Thompson Award (Pearce)
   b. Research Assistance Award (Lambert)
   c. Outstanding Achievement Award-Individual
   d. Outstanding Achievement Award-Group
   e. Distinguished Service Award
8. Membership Committee Report (Butler)
9. Publications
   a. BRIEFS Editor's Report (Huntsman)
   b. Production Editor's Report (Merriner)
10. Reports from District Directors
11. 1999 Symposium with AFS (Merriner)
12. Old Business
    a. Ad-hoc Audit Committee (Cole)
    b. Procedures Manual (Anthony)
    c. Web-page (Hill)
13. New Business
14. Award Presentation
15. Authorization of the Treasurer
16. Appointments
    a. Nominations Committee for President-elect
    b. Regional Directors
    c. District Director (vacancy)
    d. Membership Committee
17. 2000 Symposium
18. Place and time 2000 meeting
19. Adjournment

LAMBERT ANNOUNCES
1999 RESEARCH ASSISTANCE AWARD PROGRAM

Thomas R. Lambert, Chairman of the Research Assistance Award program announced nine AIFRB Associate Members received $350 awards in 1999. The program

assists fisheries researchers by paying a portion of their travel expenses to present papers at fishery science meetings or to conduct off-site research activities. All AIFRB Associate members in good standing are eligible to receive two awards. The 1999 award recipients and abstracts of their papers or descriptions of their off-site research activities follow.

J. Aleandro Buentello, a graduate student at Texas A&M University was sponsored by Delbert Gatlin III. Buentello presented his paper at the World Aquaculture '99 conference in Sydney, Australia.

EFFECTS OF WATER TEMPERATURE, FISH SIZE AND DISSOLVED OXYGEN ON DAILY FOOD CONSUMPTION OF CHANNEL CATFISH

Water temperature, oxygen, and photoperiod are potent environmental factors that influence food consumption, metabolic rate, energy expenditure and growth of fish. The cost of food is often greater than 40% of the operating cost in aquaculture and is the single largest expense in raising channel catfish. For aquaculture to be profitable it is important that rates of food intake and growth of fish are both high and uniform. Therefore, this study was conducted to further define the combined effects of temperature and dissolved oxygen on growth and food intake of channel catfish Food intake, weight gain and changes in body composition of 10-12 cm channel catfish were evaluated for fish held under three water temperature regimes (mean daily water temperature for Stoneville MS, USA, +3 and -3 C, respectively) and three dissolved oxygen treatments (100, 70 and 30% saturation, at each temperature). Temperature-oxygen regimes were applied to randomly assigned duplicate 110-l aquaria with individual biofilters. Identical conditions were used for two size-classes of fish during two independent feeding trials. Fish in each tank were collectively weighed biweekly and the ration offered was adjusted accordingly. Fish were fed once daily to satiation with a commercial catfish floating diet. After 45 minutes, uneaten food was collected, dried, weighed and food intake was calculated. The experiments lasted 9-wk each. Results indicate the maximum food intake was generally related to the oxygen-accretion capacity for food processing. Higher temperatures produced increased food consumption. Interaction among factors had an influence on basic food processing mechanisms affecting feed efficiency, weight gain, oxygen consumption and ultimately growth rate. At suboptimal dissolved oxygen levels, the higher temperature accelerated food processing rates and thus posed less burden on dissolved oxygen contents of water because the time interval of high oxygen consumption after ingestion was reduced. A model based on the concept of metabolic scope was fitted to the data to describe the combined effects of temperature and dissolved oxygen in predicting maximum food intake rates. This model will allow for optimization of feeding practices in channel catfish aquaculture.

Christina Mireles DeWitt, is a doctoral candidate under the direction of her sponsor, Michael Morrissey, at the Oregon State University Seafood Laboratory in Astoria, Oregon. She will present her work at the International Food Technologist meeting in Chicago.

OPTIMIZATION OF PARAMETERS FOR THE RECOVERY OF CATHEPTIC PROTEASES FROM SURIMI WASTE WATER

Justification:

Pacific whiting is well documented for its undesirably high amounts of catheptic proteases. It is proposed that the catheptic proteases in the waste water can be recovered utilizing ultrafiltration. Completed research has determined which treatments (pH adjustment with 1N HCl, L-absorbic acid, or salt) by themselves or when combined with heat (60°C, 10min) result in maximum isolation of cathepsin L from its endogenous inhibitor while concomitantly reducing proteinaceous mass.

Objectives:

To optimize recovery of catheptic enzymes in the permeate utilizing ultrafiltration

Methods:

Waste water was treated drop-wise with 00.1N HCl in order to adjust it to the following pH's (7.0,6.5, 6.0, 5.5,5.0,4.5, & 4.0). Additional treatments were with L-ascorbic acid (0,0.05,0.1,0.2,0.5, & 1%) or NaCl (0,0.5,1, 2, 4, & 8%). Treatments were centrifuged (3000 rcf, 6min) and supernatant was collected and analyzed for Lowry protein and cathepsin L activity. Supernatants were heat treated, recentrifuged and reanalyzed for protein and enzyme activity. Optimized treatments were passed through Macrosep centrifugal devices (Gelman Sci.) with Omega membranes (33K, 1000K, 0.3um) and analyzed for effectiveness.

Results:

Results from analysis of treatment (NaCl, HCl, L-ascorbic acid, and heat) effects showed that addition of HCl, final pH=4.0, or addition of 0.1% L-ascorbic acid followed by heat treatment resulted in the greatest cathepsin L activity with the least amount of protein. When these treatments were then passed through ultrafiltration membranes, maximum permeation of enzyme occurred with the ascorbic acid/heat treated sample (>80%). For this treatment membrane size did not significantly alter permeation. Permeation of non-treated sample reached a maximum of 25% (0.3 uM). Plugging of membrane was also evident with non-treated sample.

Significance:

These data can be used to optimize recovery parameters for cathepsin L from surimi waste water.

J. Jasper Lament, graduated with a Ph.D in May 1999 form University of Miami. He was sponsored by his major professor, Jay M. Savage. He will present his paper at the American Fisheries Society meeting in Charlotte, North Carolina.

VARIATION IN CONDITION FACTOR OF INTRODUCED POPULATIONS OF THE MAYAN CICHLID, CICHLASOMA UROPHTHALMUS IN THE FLORIDA EVERGLADES

More than a dozen species of Family Cichlidae have invaded Florida in the last fifty years, a level of invasion success that leads all vertebrate families. One species, the Maya cichlid, *Cichlasoma urophthalmus* has distinguished itself by its ability to invade a wide range of habitats. In order to evaluate the impact of this invasion, it is first necessary to investigate the ecology of these new populations. This paper will compare seasonal fluctuations in somatic condition across three populations over an 18 month period. Condition factor was measured using Fulton's K for populations representing three Everglades habitats: cypress swamp, sawgrass marsh, and dwarf mangrove. Differences in condition were related to biotic and abiotic factors, including seasonality, reproductive condition, parasite load, and water level.

Contrary to previous studies of other introduced cichlids, the Mayan cichlid exhibited pronounced seasonal fluctuations in condition factor. Populations varied in the timing and magnitude of fluctuations in condition. Females exhibited higher condition than males, however, intersexual differences were significant at only one site. Water level was found to be an important contributor to the seasonal fluctuations in condition. Condition factor rose with water level. Reproduction did not have a major effect on condition. Populations also varied in their degree of roundworm infestation, however heavily infested populations did not exhibit lower condition.

Michael N. Morgan, is a graduate research assistant at Texas A&M University. He received the award to partially cover expenses to conduct the off-site research described below. He was sponsored by Assistant Professor, Fran Gelwick.

FISH COMMUNITIES IN THE SULPHUR RIVER BASIN, TEXAS

The Sulphur River in northeast Texas originates as three forks, the North Sulphur, Middle Sulphur, and South Sulphur rivers, and flows in an easterly direction toward its confluence with the Red River. The upper portions of the basin are in the Blackland Prairie region with a dominant land use being crop production and pastureland whereas the lower portions of the basin are characterized by pine-hardwood forests with land use being primarily timber harvest and pastureland to a lesser extent. This system has undergone extensive alteration as a result of levee construction, channelization, and reservoir impoundment. Two previous studies will serve as a comparative base. These collections of fish from the basin were made in 1971 and 1978. The earlier study concentrated on the North, Middle, and South Sulphur Rivers and the latter study included sites throughout the entire length of the basin. Standardized sampling using seines will be conducted during the same month and at the same sites as those sampled in the previous studies. Supplemental sampling with gillnets and backpack electrofishing may be performed depending on habitat complexity or site dimensions. Analyses will include a comparison of species richness, relative abundance, and assemblage composition between specific sites or reaches in the current and previous collections to explore patterns in a conceptual framework of longitudinal zonation and stability/ persistence. Periodic fish collections such as this are necessary to assess expected background variation in fish community structure so that possible changes due to anthropogenic alteration can be detected.

Erin L. Rechisky, is a graduate student at the University of Rhode Island. She was sponsored by her advisor,

Conrad Recksiek. She presented her paper at the American Elasmorbranch Society meeting, which met with the American Society of Ichthyologists and Herpetologists at Penn State University.

SHORT-TERM MOVEMENTS OF JUVENILE SANDBAR SHARKS, *CARCHARHINUS PLUMBEUS,* IN DELAWARE BAY USING ACOUSTIC TELEMETRY

Acoustic telemetry was used to investigate short-term movements of neonate and juvenile sandbar sharks, *Carcharhinus plumbeus,* on the shark nursery grounds in Delaware Bay during the summer of 1998. A total of 12 sharks was tracked continuously for between 6-70 hours. The majority of the sharks caught and tracked in the southern region of the bay remained in this area for the entire duration of the tracks. These sharks predominantly limited their movements to within 3 km of shore and to water that was approximately 2-5 m deep. Two sharks made longer offshore movements, one into the deepest section of the bay (37m), and other crossed the bay from Lewes, DE to Cape May, NJ. Tidal flow appears to affect the fine-scale movements of these small sharks, however no diel patterns were observed for distance from shore, rate of movement or depth. The results of this study indicate that young sandbar sharks concentrate their movements within a restricted portion of the bay, and therefore, area closures during the summer months might prove to be an effective management technique for this species.

Edward F. Roseman, is working towards a Ph.D with his sponsor, William W. Taylor at Michigan State University. He presented his paper at the International Conference on the Conservation and Management of Lakes held in Copenhagen, Denmark.

REHABILITATION OF WALLEYE *STIZOSTEDION VITREUM* IN LAKE ERIE

The recovery of walleye in Lake Erie from near extirpation in the 1960s to a population supporting premier sport and commercial fisheries in the 1990s is a success story that epitomizes the value of interjurisdictional management of shared fisheries. Overexploitation of adult fish and poor watershed management practices during the first half of this century led to the demise of the population by the 1960s. Corrective management strategies implemented in the 1970s focused on limiting fishing mortality and improving water quality and habitat conditions in the lake. The walleye population responded to these management strategies and the population reached more than 100 million age-2 and older fish by 1988. While the walleye population remained strong in the 1990s, it continues to demonstrate high inter-annual variability in recruitment. Recent research on Lake Erie walleye demonstrated the importance of physical processes on the abundance and survival of early life stages of walleye, and these results emphasized the importance of habitat structure and function in determining survival and recruitment. These studies suggest that resource managers should investigate how changes in the watershed (damming and channelization of rivers, draining and diking of wetlands, hardening of shorelines, loss of allochthonous nutrient inputs, introductions of exotic species) affect the structure and function of habitats important to Lake Erie walleye.

Carl R. Reutz III, is a Ph. D. Student at the University of Minnesota working under the direction of his sponsor, Bruce Vondracek. He presented his paper at the North American Benthological Society meeting held at Duluth, Minnesota.

TOP-DOWN EFFECTS OF SLIMY SCULPIN IN VALLEY CREEK, MINNESOTA

We conducted a 31-day enclosure/exclosure experiment during July-August 1998 to measure top-down effects of slimy sculpin (*Cottus cognatus*) on macroinvertebrates and periphyton in Valley Creek, Minnesota. We used 1-m^2 cages with 6-mm mesh to manipulate slimy sculpin densities within six riffles. Each riffle contained an enclosure (stocked with 3 slimy sculpin), exclosure (fishless), and control cage (open on the downstream sides). Periphyton biomass (chlorophyll a and ash-free-dry-mass) on unglazed clay tiles (232 cm^2) did not differ significantly between treatment levels. However, total macroinvertebrate densities on tiles were significantly different. Exclosures had higher total macroinvertebrate densities than enclosures or control cages. A similar, weaker trend was apparent for Chironomidae and Hydroptilidae larvae. Stomach contents of caged slimy sculpin showed that Chironomidae larvae were an important food resource, suggesting predation as a likely mechanism by which slimy sculpin reduced Chironomidae densities. A similar mechanism was not apparent for Hydroptilidae larvae. These preliminary results suggest that slimy sculpin reduced total macroinvertebrate densities on artificial subtrata

riffles, but the effect did not cascade to primary producers.

Contrance J. Ryan, is an Associate Biologist with the California Department of Fish and Game with the responsibility of managing the herring fishery in San Francisco Bay. She is on the organizing committee for Herring2000, an international symposium to be held in Anchorage, Alaska. She was sponsored by her supervisor, Eric J. Larson.

SYMPOSIUM BACKGROUND

Herring have supported important subsistence and commercial fisheries in all northern oceans for centuries. Although past research on herring and herring fisheries has played a key role in development of fisheries science and management concepts, herring fisheries have been characterized by unpredictable fluctuations, some resulting in collapse.

As we enter a new millennium, we face a number of challenges in the management of herring which demand further study, synthesis, and debate. To accommodate the increasing human population, expanding the harvest levels of herring may be necessary. Recent movement toward a precautionary approach and a more holistic view of fisheries management raises issues about the sensitivity of populations to exploitation; about considerations of the broader role of herring in the ecosystem, both as a predator and a forage species; and of social economic considerations associated with the resource.

The Wakefield symposium sponsors convened the Alaska Herring Symposium in 1980 and the International Herring Symposium in 1990. The beginning of the new millennium provides an opportunity to meet again to document new developments, to consider management policies, and to look forward to expectations and requirements for research and progress.

The goal of this symposium is to bring together scientists who manage herring, study herring biology and ecology, and study the social and economic aspects of herring fisheries, to share information, to synthesize recent developments, and to plan for further work to help conserve the resource and ensure sustainable fisheries.

Katherine M. Swiney, is a graduate student at the University of Alaska Fairbanks, Juneau Center, School of Fisheries and Ocean Science. Thomas C. Shirley, chairman of her graduate committee was her sponsor. She presented her paper at The Crustacean Society meeting in Lafayette, Louisiana.

REPRODUCTIVE CYCLE OF THE DUNGENESS CRAB, CANCER MAGISTER, IN SOUTHEAST ALASKA

Dungeness crabs generally are believed to reproduce annually, but may not in Southeast Alaska. Alaska is the northern limit of Dungeness range and this may effect the periodicity of reproduction. Mature female crabs were collected from Bridgett Cove, Alaska and held in flow-through tanks from October 1997 through October 1998. The crabs were tagged and assigned to one of two groups based on reproductive status when collected. Non-ovigerous females at the time of collection (and that did not extrude eggs in the following months) were denoted as females that did not reproduce in 1997.

Ovigerous females represented crabs that were incubating eggs and therefore reproduced in 1997. With this distinction among females it was possible to follow the changes in gonad development over a reproductive cycle with crabs that reproduced in 1997 and those that did not. Gonadosomatic indexes (GSI) were calculated for both groups of females every month from March 1998 through October 1998. GSI were used to compare development between females that did extrude eggs in 1997 and those that did not. Females that did not reproduce in 1997 had significantly higher GSIs than those that reproduced in 1997. For both groups GSI increased over time, but in October GSI values for females that did not reproduce in 1997 decreased significantly and were not statistically different from the March values. This suggests reabsorption of gonads by females that did not reproduce. All mature females do not reproduce every year in Southeast Alaska; our field sampling verifies that a substantial portion the mature population do not. Under laboratory conditions, some females can reproduce in two consecutive years. The reproductive cycle of Dungeness crabs appears to be complex and warrants additional study.

Locomotive still working, train disconnected

By Jack Pearce

Following up on Gene's recent editorial, (The Little Engine That Could, *Briefs* March April 1999), I have the following thoughts: 1) probably most directors have not done as much as they could, but the following should be enlightening to the AIFRB bureaucracy. 2) Earlier the past year Frank Panek., Barb Warkentine and myself worked to set up a conference in the PA area which several members might have been able to attend; several very busy, first-rate scientists were invited as speakers. Guess what? Not a single NE/DC member showed! So much for district meetings. 3) The Thompson Award process is another example of poor general participation. I invest a lot of time and effort in this. Some years with great success, others virtually no success! Why? I can truthfully say that it is not because of a lack of effort. If the existing membership put as much into promoting the Thompson Award as they do the selling of caps and other nonsense then we would have better attendance at meetings and more paper nominations!!!

Editor's response: Is it possible we've all heard too many talks? My experience is that meaningful work assignments are more likely to generate member interest than are listening sessions. How about an awards committee for your district? What other work should your district be doing? Should we have district committees that provide members with a sense of function, purpose, and accomplishment within AIFRB? To the credit of our profession I can never recall being refused when I asked another biologist to assist with important AIFRB or AFS activities.

Apologies to Terry Quinn...

In announcing the publication of Quantitative Fish Dynamics, Terrance J. Quinn II and Richard J. Deriso (Oxford University Press, 1999) in *Briefs,* March-April 1999, I erred when checking the author's names against the AIFRB membership list and inadvertently omitted listing Quinn, a long-time AIFRB fellow, as a member-author.

Dr. Terrance J. Quinn, II is chief Scientist of the Tuna-Billfish Program at the Inter-American Tropical Tuna Commission in La Jolla California.

~ The Editor

❖

Productivity of Pacific Sharks Compared

Susan Smith, Member

Condensed from, "Intrinsic rebound potential of 26 species of Pacific sharks", by Susan E. Smith, David W. Au, and Christina Show, of the National Marine Fisheries Service, Southwest fisheries Science Center, La Jolla, California. *Marine and Freshwater Research* (1998, Vol 49 No. 7, T.I. Walker, ed.)

The relative productivities of 26 species of Pacific Ocean sharks were recently compared and ranked according to their abilities to rebound from fishing pressure. The authors use a modified demographic method that incorporates data on each species unique life history characteristics taken from the literature. The method ,originally developed by Au and Smith (1997. *Can J. Fish. Aquat. Sci.* 54, 415-20) allows estimation of each species' rate of population increase after being hypothetically exposed to fishing mortality. Some compensation in the population in response to being "fished down" is assumed (an increase in juvenile survival), but only to the extent possible within the limits of each species' key life history traits: e.g., age at female maturity, maximum reproductive age, and average fecundity or litter size. The authors propose that the resulting rate, which they call "rebound potential," can be used as a measure of each species' sensitivity to exploitation, because it represents the rate of population increase each species is capable of attaining. The sharks in the study occur along the Pacific coasts of Mexico and the United States, as well as in other oceans of the world.

Biologists have long suspected that sharks are more vulnerable to harvest than many bony fishes, such as mackerel and sardine, because they are slow-growing, late to mature, and produce few young. But up until now, no one has been able to devise a standard method to quantify or compare their relative vulnerabilities across the board. Results showed a wide range of compensatory and productivity capabilities among the sharks. For example, the spiny dogfish off British Columbia under exploitation can only increase its population 1.6% annually, whereas the gray smoothhound has the potential to increase its population over 8 times that rate (at 13.6 % per year). This is still relatively low compared to bony fishes (sardines, 35%) and closer to productivities of marine mammals. The average rate of population increase for sharks examined (5%) is slightly higher than the maximum of humans (3-4%). Change in age at maturity was shown to have the strongest effect on productivity.

The work also identifies three major groups of sharks, according to similarities in their productivities, sizes, and certain life history traits. Those with the lowest rebound values, like the leopard, dogfish, 7-gill and bull

sharks, tended to be long-lived, late-maturing, medium-to large-size coastal sharks. They seem to beat the odds against survival to adulthood by having a long life span and many birthing attempts, but have a poor ability to withstand fishing pressure, especially if the older reproductive stock is depleted. Those with highest rates were small coastal, early maturing species like the smoothhounds and sharpnose sharks. These appear to outpace mortality with a fast turnover rate, but are vulnerable in their near shore habitats. Sharks with mid-range values, like mako, blue, and thresher, are mostly large (>2.4 m or 8 ft. maximum size) pelagic species, relatively fast-growing with low-to-mid-range ages of maturity. Many in this group need to grow quickly to attain swimming power for their pelagic existence. But the authors point out that while they may have a moderate ability to withstand fishing pressure, they are also currently vulnerable as bycatch in large-scale international ocean fisheries.

HISTORY: AIFRB AWARD RECIPIENTS

OUTSTANDING ACHIEVEMENT AWARD - INDIVIDUAL

This award is reserved for persons who have authored significant publications in fisheries, have rendered exceptional service to the profession, have demonstrated outstanding teaching or training of students, have been responsible for important discoveries or inventions, or have made major contributions to the advancement of fishery science.

RECIPIENTS

Elbert H. Ahlstrom 1979; James E. Sykes 1980; F. Heward Bell 1981; Richard H. Stroud 1982; Kenneth D. Carlander 1983; David W. Schindler 1984; Peter Larkin 1985; William G. Gordon 1986; William F. Royce 1987; Reuben Lasker 1988; 1989-1990 No award made; Robert L. Burgner 1991; William W. Fox 1992; Arthur D. Hasler 1993; William E. Ricker 1994; Raymond J. H. Beverton 1995; Reeve M. Bailey 1996; William Pearcy 1997; John Blaxter 1998.

OUTSTANDING ACHIEVEMENT AWARD - GROUP

This award is given to an organization which has established an outstanding record of outstanding contributions to fisheries. The criteria for judging are similar to those for the Individual - significant publications, exceptional service, outstanding teaching or training, important discoveries or inventions, and major contributions to the advancement of fishery science.

RECIPIENTS

Canadian Journal of Fisheries and Aquatic Sciences 1982; Great Lakes Sea Lamprey Control Program 1983; Harvesting Technology division, NMFS 1984; Sport Fishing Institute 1985; Southwest Fisheries Center, La Jolla CA 1988; Cooperative Fish & Wildlife Research Units Center & Related Coop Units 1992; North Pacific Anadromous Fish Commission 1997; The Illinois Natural History Survey 1998.

DISTINGUISHED SERVICE AWARD

This award is given in recognition of an individuals outstanding and sustained service to AIFRB.

RECIPIENTS

Oliver "Ollie" Cope 1994; Sammy Ray 1995; Joseph W. Rachlin 1997; John Merriner 1998.

These lists are profferred to encourage members to nominate candidates in the upcoming award cycle.

Fetterolf May Smell a Rat!

(Why not? He was up to his ankles in rat droppings)

I was shocked by the photo of N.C. "Red" Able (Who's Who in AIFRB, *Briefs*, March-April 1999) doing what he does best. Now that his habit has been exposed, he will not be safe, even in retirement, from the prying eyes of subversives (not to mention his neighbors). Or maybe my interpretation was incorrect, and Red was simply attaching the FED 1 before entering the candiru research tank.

I'm distressed that D. S. Eave risked the security of Red's identity by publishing some of his accomplishments, but now that the secret is out perhaps others can add to the list of his fascinating assignments and findings.

Carlos Fetterolf

Perhaps other members know Mr. Able and would like to enlighten us further on Red's career, Editor.

California Sea Grant Leadership Change

After a long and distinguished career, Dr. James J. Sullivan has announced his retirement from the California Sea Grant College System and University of California effective July 1, 1999.

During the search for a permanent director, Dr. Clinton Winant, Professor of Oceanography and former Director of the Center for Coastal Studies at Scripps Institution of Oceanography, has agreed to serve as Interim Director.

It's Time to Address Roads

By Mike Dombeck

Few issues facing the U.S. Forest Service have proven as intractable as forest roads. Roads help people access the forests they so love. They allow the removal of commodities, and they provide access for other management needs. Some form the backbone of rural transportation systems in the West.

Yet poorly constructed or new forest roads leave lasting marks on the land. They can increase runoff in streams and cause erosion and landslides. They can harm fish, fragment wildlife habitat, and help noxious weeds invade native ecosystems. In February, the Forest Service suspended road construction in most unroaded areas of the national forest system. We have begun developing new national policies to address long-term management of the agency's road network.

Many friends, perhaps worried about my sanity, wondered why I would take on one of the most contentious, the most vexing policy issues facing the agency. The answer is surprisingly simple- we have no choice.

The Forest Service has a backlog of more than $8.5 billion in road maintenance and reconstruction needs. We currently receive less than 20 percent of the funds needed to maintain existing roads. In 1991, for example, 93,600 miles of Forest Service roads were suitable for passenger cars. By 1996, that number fell to 86,000 miles.

It simply does not make sense to construct new roads in roadless areas when we cannot take care of the roads we have. In addition to common-sense economic reasons, there are compelling ecological reasons to take a cautious approach to new road construction-particularly in roadless areas. Consider some scientific information we have from the Columbia River Basin:

Of the region's subbasins considered to possess the most verdant forests, 80 percent contain more than 50 percent roadless areas and wilderness. Conversely, of those subbasins with the least healthy forests, about 90 percent contain less than 25 percent roadless areas and wilderness.

- Eighty-seven percent of the areas with the greatest forest ecosystem health problems contain roads.
- Only 7 percent of the basin's degraded watersheds are found within roadless areas.
- About 60 percent of the best aquatic habitats are found in roadless areas or areas with very low road density.

Our decision to suspend road construction in roadless areas is a matter of accountability. Building a road is an irreversible decision. How can we responsibly do so when we cannot afford to take care of the road system we already have?

Conservation-minded citizens should now focus on existing roads rather than roadless areas. That's the real issue if we care about restoring the ecological fabric of the landscape and the health of our watersheds.

Roadless areas have become refugia-places where remnant populations of native species persist. Ironically, these areas historically included some of the least biologically productive lands. They typically include high elevations, steep slopes, and unstable soils. The most productive lands were historically along valley bottoms and mainstream rivers, where we built the first roads. If we ever hope to reconnect the tattered fabric of individual watersheds to an entire landscape, we must look to those areas.

The challenge facing the Forest Service is to vastly reduce the road system while still ensuring efficient and safe public access in a manner that protects the land's health. During the next 18 months or so, we will develop a long-term road policy with three primary objectives:

- Offer new guidelines to help managers determine where, when, or if to build new roads.
- Aggressively decommission roads that degrade the environment.
- Selectively upgrade certain roads to help meet changing use patterns on national forests and grasslands.

It's my expectation that the long-term road policy will significantly limit, if not eliminate, costly new road construction in sensitive areas. Such construction can cause erosion, imperil rare species, or fragment habitats. We will also move aggressively to close, obliterate, or otherwise decommission unauthorized and unneeded roads. We need to immediately attend to roads that pose public safety or environmental problems. We have asked Congress for funding that will allow us to increase the number of roads we close or repair in fiscal year 2000 by 50 percent over 1998.

Our intent is to give local managers the scientific tools they need to work with local people to make more informed decisions about when, and if, to construct new roads. This is our obligation as resource professionals and our duty to the American taxpayer.

From : The Inner Voice, May-June, 1999
Mike Dombeck is chief of the Forest Service

Dombeck formerly a fishery biologist was recently described to me by a forest expert with the Wilderness Society D.C. office as the "best thing to happen to National Forests since Gifford Pinchot". Editor

Risks and Benefits related to Consumption of St. Lawrence River Sport Fish

A Summary of the Final Report

Much Condensed from: St. Laurent Vision 2000 February 1999
Submitted by Carlos Fetterolf

Your Squib on St. Lawrence River mercury contamination didn't go quite far enough. I've enclosed a summary of the final report on the Risks and Benefits related to Consumption of St. Lawrence River Sport Fish. The conclusions are revealing and similar to what I believe would be found in many locations in other parts of Canada and the U.S. if similar studies were done. The questions remain in my mind, "Are many of our fish consumption advisories too restrictive? Are many unnecessary?"

~ Carlos

The St. Lawrence River is host to a great number of sport fishers, many of whom consume their catch. Despite an overall decline in the levels of many toxic contaminants in the River, some species of fish continue to exhibit contaminant levels higher than the maximum permitted in market fish.

In 1987, Montreal's Bureau Regional en Santé Environmental conducted a survey review of previous studies concerned with fish consumption and toxic contaminants in fish. The Bureau concluded that the contaminants found in sport fish posed little health risk for most sport fishers. It did suggest however, that some groups of fishers might run a health risk due to the volume of sport fish they consumed. The study also showed that economically disadvantaged sport fishers, including fishers on unemployment insurance or social welfare, tend to eat more of their catch. Consumption of sport fish by women of reproductive age was also a concern.

In a 1993 submission to St. Lawrence Vision 2000 (SLV2000), the Montreal Regional Public Health Program (MRPHP) proposed to evaluate human exposure to priority contaminants related to the consumption of St. Lawrence River sport fish. In 1995, the MRPHP launched an in-depth study into the risks and benefits of consuming St. Lawrence River sport fish. This far-reaching research project was funded under the activities of the Health component of St. Lawrence Vision 2000. The final report was deposited with Health Canada during the winter of 1999.

Purposes of the Study

The purposes of this study are to:

- assess whether Montreal-area sport fishers who eat their catch retain contaminants or nutrients at levels that could affect their health;
- compare levels of contaminants and fish-derived fatty acids in tissue samples taken from a representative number of sport fishers who consume high quantities of their catch and a representative number of sport fishers who consume low quantities of their catch;
- describe how fish contaminants are transferred from the St. Lawrence River to residents in the Montreal area:
- determine how many residents in the Montreal area are sport fishers and how many consume their catch;
- develop a demographic profile of sport fishers in the Montreal area;
- identify the species and which parts of the fish sport fishers consume;
- analyse how fishers assess the risk associated with consuming fish from the St. Lawrence River.

The target population for the MRPHP study was Montreal area sport fishers aged 20 years or older who reported eating fish caught in the St. Lawrence River.

Since PCBs and mercury post the greatest health risk of all St. Lawrence River contaminants, responses were scored to estimate current-season exposure to mercury and past-season exposure to long-lasting PCBs.

The selected fishers participated in at home assessments of their fishing practices, nutrition, and current and past fish consumption. Blood, hair and urine samples were also taken during home assessments, and were used to identify markers of exposure to selected toxic substances in fish. Participants whose reported fish consumption levels differed greatly between Stages I and II were not included in analyses comparing high-versus low-level sport fish consumers. In all, the interview team met with 3078 fishers during the three seasons for data gathering. Of these, 1654 were considered eligible and participated in Stage I. A subgroup of 192 of the highest and lowest level consumers of contaminated species of sport fish participated in Stage II of the study.

In selecting the contaminants to be included in the study, consideration was given to the 11 critical contaminants listed by the International Joint Commission, who took previous measurements of contaminants in

the flesh of St. Lawrence River fish (specifically with respect to freshwater fish), as well as to feasibility and cost factors. The selection included organochlorine pesticides (DDT and its metabolites, Mirex, hexachloride); other organochlorines (PCBs) and heavy metals (lead, arsenic, and methylmercury). These contaminants enter fish through the atmosphere, water sediments, and contaminated soils.

Measuring Nutrients Derived from Fish in Humans

It is important as we evaluate the risks associated with consuming sport fish, that the health benefits of fish consumption also be considered. A fish consumption study conducted at the Kahnawake Mohawk community on the south shore of Lac St. Louis, found that the catch in this region provided a lean source of high-quality protein with significant concentrations of Omega-3 fatty acids in certain species - specifically in bullhead, perch, pike, small bass, sturgeon and walleye. To evaluate possible health benefits related to consuming these species of fish, measurements for Omega-3 fatty acids, triglycerides, cholesterol and HDL were recorded from plasma and red blood cell samples taken from participants in Stage II of the study.

Among the 80 sport fishers selected because of their high-level consumption during the current season, the median estimated number of sport fish meals was 47, as compared to 9 for the 55 fishers identified as low-level consumers. Perch was the species most often eaten by both high-and low-level consumers, with a strong representation of walleye and bass among consumers who fished in the fall, and of walleye and pike among ice-fishers.

Portion sizes eaten by high-level sport fish consumers tended to be higher than those among low-level consumers.

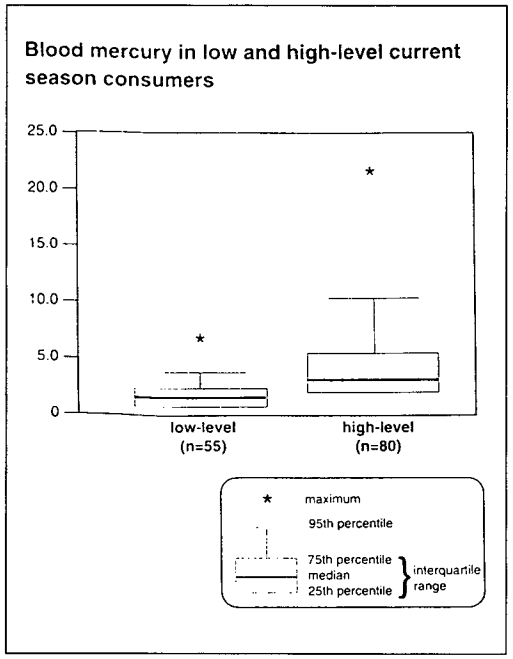
In general, sport fish consumption levels among long-term consumers have remained stable over time. Both high- and low-level consumers reported that they eat sport fish as often now as they did 5 or 15-20 years ago.

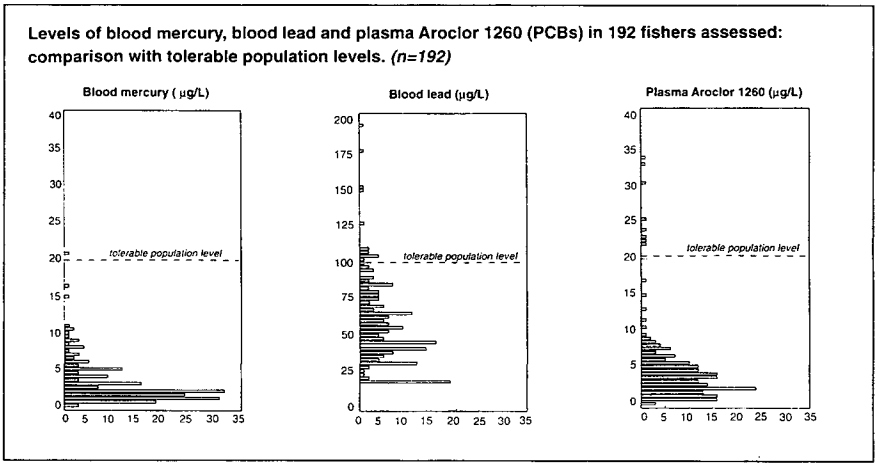
Researchers looked at sport fish as a proportion of all fish consumed in a year. Overall consumption analysis included market fish, such as ocean fish, fried fish and canned fish, as well as freshwater fish. In terms of overall fish consumption, while high-level sport fish consumers obviously ate more sport-caught species, the low-level group ate more commercial fish. Overall, high-level sport fish consumers reported that a greater proportion of their dietary protein came from fish (mean of 8-12% for high level consumers by season versus 4-6% for low-level consumers).

High-level and low-level sport fish consumers showed relatively low organochlorine levels that fell within WHO standards. Of all of the pesticides measured. Mirex was found in highest concentrations in high-level sport fish consumers.

Except for DDE levels in blood samples, which were 43% higher for fishers living below the poverty line, the study only found small, insignificant increases in contaminant levels for participants with income levels below the poverty line.

Omega-3 fatty acid levels were slightly higher among high-level consumers, but this difference was not statistically significant.





Plasma lipid levels were similar among all sport fishers and were, on average, within Health Canada recommendations.

Transfer of River Contaminants to Fish Consumers

It appears that mercury levels reflect average consumption levels more than fish mercury concentrations.

The research team measured 14 congeners of PCBs among sport fishers. Levels of most congeners have been in decline for the past 20 years, as illustrated by a series of PCB measurements in river fish. Researchers found that older high-level consumers showed the highest levels of all the PCB congeners measured. By comparing older low-level consumers to younger high-level consumers, researchers found that age was linked to the level of some congeners. In contrast, St. Lawrence River fish consumption appears related more to other congeners whose links have not been studied. It appears that while the St. Lawrence is an important source of some congeners of PCBs, other sources have or have had a greater impact on most fishers.

Finally, analysis of DDT patterns showed that while older high-level consumers continue to show higher levels of the persistent by-products of DDT than do low-level consumers, DDT itself is present in equivalent amounts in both groups. Current exposure to DDT through local St. Lawrence sport fish consumption appears to be minimal.

Overall, it can be said that the study did not find a significant "St. Lawrence effect" linked to the level/concentration of exposure to contaminants measured in sport fishers/consumers.

Conclusion: Should Sport Fishers Continue to Eat their Catch?

The study conducted by the MRPHP team concluded that sport fishers from the Montreal area who consume their catch from the St. Lawrence River do not have dangerous levels of toxic chemicals in their bodies. While the general perception that the River and its fish pose health risks persists, the study findings indicated that even high-level consumers did not show excessive levels of chemical contamination. Given these findings, the MRPHP research team questions the need for official recommendations limiting sport fish consumption. Researchers stressed, however, that this assertion depends on continued environmental monitoring and on the effective surveillance of sport fish consumption.

Though the consumption of sport fish from the Montreal region was not found to be detrimental to health, neither was it found to have significant, identifiable health benefits. The study found no direct evidence that high-level consumers were in better cardiovascular health or had better levels of the beneficial Omega-3 fatty acids than low-level sport fish consumers. Nutritional calculations did, however, suggest that sport fish consumers ingested significant quantities of protein, calcium, iron and Vitamin B_{12}. The research team asserts that these nutritional benefits should be the basis for the promotion of all fish consumption as a part of healthy living. •

MEETINGS OF NOTE

BOARD OF CONTROL

(followed by AFS Meeting)
August 28-29, 1999
Charlotte, North Carolina
(see page 1)

10TH ANNUAL WEST COAST CONFERENCE ON CONTAMINATED SOILS AND WATER

Deadline for Abstract Submission is June 30, 1999

Exhibition space is available for this conference.

For further information regarding the conference, submitting an abstract, exhibiting, or registration, please see our website (www.aehs.com) or contact:

Heather McCreary
AEHS 150 Fearing Street, Suite 20
Amherst, MA 01002-1944
Tel: 413/549-5561
Fax: 413/549-0579
email: heather @aehs.com

United States Bans Imports of Undersized Atlantic Swordfish

Requires Seafood Importers to Obtain Permits

NOAA's National Marine Fisheries Service has made final regulations that ban the sale and import of undersized North Atlantic swordfish in a move designed to save dwindling stocks of the species. The new rules, together with a proposed migratory species management plane, fulfill a key element in President Clinton's 1998 Year of the Ocean initiative to promote sustainable use of marine fisheries and other ocean resources.

The Fisheries Service will implement this new ban beginning June 17, 1999, to allow time to educate importers, exporters, and government officials of exporting nations about the new reporting requirements. This outreach program will include sending letters to the embassies of all nations that export swordfish to the United States and sending letters to all importers of swordfish in the United States that explain the new rules. The Fisheries Service will also staff an exhibit at the International Boston Seafood Show and will present a seminar there to educate affected importers and exporters.

The new rules ban imports of Atlantic swordfish less than 33 pounds dressed weight (without head, fins, entrails), and require seafood importers to obtain permits that allow them to buy and sell swordfish., Under the permit system, dealers are required to report imports of swordfish from any source, and comply with a certificate of eligibility program for all imports. Under the program, a certificate of eligibility is required for every imported swordfish, identifying the shipment by ocean of origin, flag of fishing vessel and, for Atlantic swordfish pieces, certification that they were taken from fish larger than the minimum size.

Other regulatory improvements include:

- Ensuring that imports of Atlantic swordfish to the United States will meet minimum size requirements for the sale of Atlantic swordfish in the United States.
- Data collected through the use of certificates of eligibility will provide managers with information showing source and size of imported swordfish caught by foreign flagged vessels. As a major importer and consumer of Atlantic swordfish, the United States is expected to play a significant role in monitoring total mortality through fully documenting these imports and reporting to ICCAT.
- Import data will be used to estimate total fishing mortality. North Atlantic swordfish stocks are considered overfished, with stocks estimated at 58 percent of the level needed for the largest annual yield that could be continuously sustained. South Atlantic and Pacific swordfish stocks are considered fully utilized. Atlantic swordfish are managed internationally through the International Commission for the Conservation of Atlantic Tunas, consisting of 22 member nations. More than 30 countries harvest North Atlantic swordfish.

Article reprinted from a NOAA press release 3/16/99
From: The South Atlantic Update, April 1999

Another Point of View...

Will the Real NMFS Swordfish Protection Plan Please Stand Up!

In an apparent attempt to make it look like the Department of Commerce through its National Marine Fisheries Service (NMFS) is doing something to halt the precipitous decline in Atlantic swordfish, the agency recently issued a press release. In an action they claim "will help save dwindling Atlantic stocks," NMFS has issued final regulations that ban the sale and import of undersized North Atlantic swordfish. They term the move "a key fishery management element of President Clinton's plan for the ocean environment."

The news release goes on to say that "the United States is a world leader in conserving this and other highly migratory marine resources." According to Terry Garcia, Commerce assistant secretary for oceans and atmosphere, the ban on undersize swordfish "demonstrates the commitment of this administration and U.S. fishermen to rebuild and protect our valuable natural resources."

For those that don't know better, it would seem that swordfish are well on the way to recovery thanks to the commitment of U.S. fishery managers and the commercial fishing industry.

The reality of the situation, however, is totally different from what the government's news release implies. First, the ban on undersized swordfish (only affects) fish under the ludicrously small minimum size of 33lb dressed weight.

Female swordfish don't reproduce for the first time until they reach an average weight of 150 lb. The vast majority of those small fish caught on longlines are dead anyway, so it makes little difference whether they are landed or thrown back dead, as far as conservation is concerned. Also, NMFS has already admitted that at the current rate of decline, swordfish may be commercially extinct in less than 10 years.

Stopping the import of swordfish under 33 lb will not rebuild the stocks which are far below maximum sustainable yield, and are currently being killed at more than twice the rate that would allow rebuilding. Neither will the import ban even stop the decline.

At the present time, all highly migratory species under management responsibility of the Department of Commerce and NMFS are at or near their all-time low in abundance.

Furthermore, the ban on swordfish under 33 lb (only affects) the North Atlantic stocks. Swordfish in the rest of the world's oceans remain mostly unmanaged.

From: The International Angler 61(3). May-June 1999

Hermaphroditic Species in Trouble in Southeast

Two hermaphroditic (protogynous) reef fishes of the southeastern United States exhibit population conditions that have alarmed management councils, scientists, or both.

After hearing an alarming stock assessment of red porgy *Pagrus pagrus*, the South Atlantic Council voted to request the National Marine Fisheries Service take emergency action to prohibit harvest and possession of this species in the South Atlantic.

The assessment, which incorporates data collected through 1997 , shows that red porgy, also known in the South Atlantic as pinkies, pink porgies, and silver snappers, are continuing to decline and recruitment and biomass levels have declined to very low levels.

Red porgy is managed in the snapper grouper fishery management unit. Two recent amendments to the Snapper Grouper Management Plan aimed at rebuilding several overfished species, including red porgy, went into effect in the last few months. These new regulations include a two inch minimum size increase for red porgy from 12 inches to 14 inches, a five fish per person recreational retention limit (there previously was no limit), and a March-April spawning season closure for commercial fishermen. A limited access permitting system was also recently implemented, which reduced the number of commercially permitted vessels in the snapper grouper fishery.

These regulations were formulated based upon a Congressional mandate to rebuild overfished stocks in a ten year timeframe. However, information in the 1999 assessment shows the stock has further declined and the council concluded current regulations will not rebuild the red porgy resource.

Additionally eight concerned scientists have written an open 22 page letter to councils and NMFS detailing problems with continued fishing that targets the spawning aggregations of gag *Mycteroperca microlepis* a grouper. Signatories to the letter include AIFRB members Mark Collins, Patrick Harris and George Sedberry.

A Gastronomic Note

William Dill

I agree that this contribution is quite late. It took me some time to find the recipe.

In the article on shad (*Briefs*, Vol. 27, No. 6), it says "We've kind of gotten out of eating fish with a lot of bones in it". Commercially, shad may have been phased out, but both as a sport fish and a gastronomic delight — I can recommend it.

As one who used to fly fish for shad in California (where it was introduced), I found the following recipes excellent.

SHAD IN FOIL

Scale, clean, remove head and tail and scutes.
Put 2-3 lb. shad in heavy foil
Fill cavity with a mixture of:

1 minced green onion
1 tablespoon minced parsley
½ teaspoon "Pinch of Herbs"
2 tablespoons butter
Juice of ½ lemon
3 diced fresh mushrooms
½ cup vermouth (French or dry)
pinch of salt

Seal fish in foil. Cook in oven 25 minutes at 375° F. Remove flesh from major bones, gently. Serve with baked potato and salad.

SHAD ROE

Prick membrane at several spots to avoid bursting when cooking. Simmer roe gently for 10 minutes in water, vermouth, and salt (to cover). Cool.
Gently fry until limp:

2 tablespoons butter
1 minced green onion
1 tablespoon minced parsley

Remove above from pan. Fry roes **slowly** until lightly browned. Do **not** overcook. Cover roe with cooked onion, parsley, and pan drippings.
One should accompany this with white wine.

Ecology at National Environmental Research Parks:

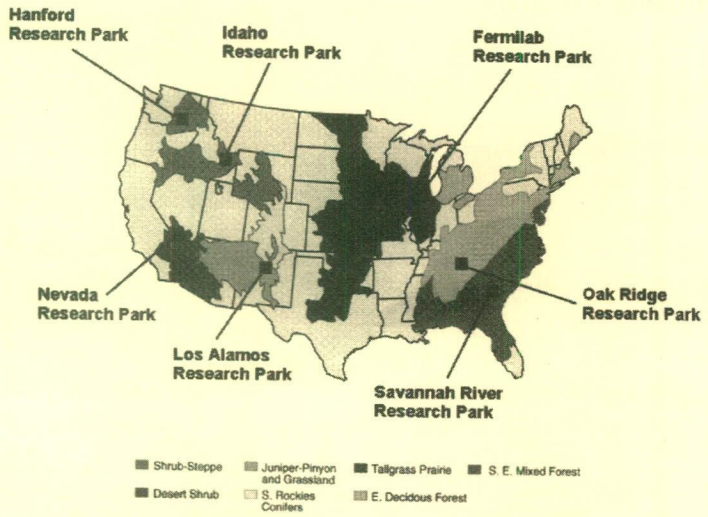
LAND, ONCE SECRET AND SECURE, MAY SOON BE FOR SALE

On the average road map of the United States the land owned by the Department of Energy (DOE) may seem like nothing more than a few big, mysterious blank spots. Although the acreage of the average DOE site looks about equal to the acreage of the average National Park, the DOE spots on the map show no welcoming entrance roads, feature no tourist attractions, and offer no scenic overviews to passing motorists.

But to many ecologists, land owned by the DOE presents itself like a treasure trove, since many of the DOE sites hold a surprising wealth of ecological bounty. Although blank and empty looking on the maps, these areas are often brimming with green space, prime for research and rich with biodiversity that has gone relatively unspoiled by the encroachment of human development and use.

With the end of the Cold War came a re-evaluation of the DOE's mission. Two years ago, an audit conducted by the DOE's Inspector General (IG) recommended selling a fourth of the research park lands. Especially targeted were DOE lands in Hanford, Washington, Oak Ridge, Tennessee, and Idaho Falls, Idaho. In response to the IG's report, the field management office of the DOE has asked each lab to assess its land use and needs. Some of the labs have already begun selling land to neighboring communities for development, much to the alarm of those who have conducted long term studies at these sites. What seemed like an improbability is now reality, and those lands which were once under the ultimate form of protection may soon be up for grabs.

Abridged from: New Source, April 1999



Environmental Agenda for Congress

In observance of the 29th anniversary of Earth Day, GOP lawmakers led by U.S. Senator John H. Chafee (R-RI) and Congressman Sherwood Boehlert (R-NY) - recently released a list of ten environmental initiatives for the Congress to consider.

Chafee said, "I want to mark Earth Day by noting that a critical, activist group of Republicans in the House and Senate is making great strides forward to pursue a responsible conservation agenda... Republicans have historically been - and will continue to be - at the forefront of efforts to protect the environment and conserve wildlife and natural habitats. We do so in the great tradition of Theordore Roosevelt, whose legacy continues to inspire us all."

Chafee unveiled the "TR 10" - a list of environmental legislation and initiatives he said were relevant for Congress to consider. The TR 10 list includes:

1) Permanent funding of the Land and Water Conservation Fund (LWCF)/Fish and Wildlife Foundation Reauthorization
2) Water Resources and Development Act (LWRDA - S. 507) / Everglades Restoration
3) Superfund Reform/Brownfields Redevelopment
4) Credit for Voluntary Action (S. 547) / Reducing Greenhouse Gas Emissions
5) Clean Beaches and Coastal Protection Act (H.R. 999)
6) Estuary Restoration and Protection
7) Neotropical Bird Conservation Act (S. 148 / H.R. 39)
8) Environmental Tax Credits
9) Airport Air Quality Improvement Act (H.R. 1035)
10) Coral Reef Conservation Act (S. 275)

Congressional Press Release

10 MOST ENDANGERED RIVERS OF 1999

1. Lower Snake River - WA
2. Missouri River - MT-MO
3. Alabama-Coosa-Tallapoosa River Basin - GA-AL
4. Upper San Pedro River - AZ, Sonora
5. Yellowstone River - MT, ND
6. Cedar River - WA
7. Fox River - IL, WI
8. Carmel River - CA
9. Coal River - WV
10. Bear River - UT

From American Rivers, Spring 1999

Experimental Fishery on Georges Bank Holds Promise for the Scallop Industry

By David Rudders and John Olney Jr. (Fellow)

Portions of the closed areas of Georges Bank may be reopened to scalloping. At least that is what some scientists and the sea scallop industry may be proposing to the New England Fishery Management Council at upcoming meetings. The basis for this recommendation stems from the promising findings of an experimental fishery that was conducted this summer in closed area #2 on Georges Bank. The experimental fishery, which represents a joint effort among the Virginia Institute of Marine Science, Sea Grant's Marine Advisory Program, the University of Massachusetts at Dartmouth, the Fisheries Survival Fund , and the National Marine Fisheries Service, was designed to quantify the scallop resources in closed area #2 on Georges Bank. The data from the survey has yet to be fully analyzed, but preliminary observations indicate dense concentrations of large scallops in some portions of the closed area.

If the New England Fishery Management Council decides to open up these areas, it could be a large economic boost for the scallop industry in Virginia. In 1996, over 116 scallop vessels fished out of Virginia and these vessels landed in excess of 5 million pounds of shucked scallop meats. In 1996 and 1997, Virginia was ranked second only to Massachusetts possessing the highest percentage of total scallop landings on the East Coast. Even a limited amount of fishing in the closed areas of Georges Bank could greatly benefit Virginia's scallop industry.

Three portions of Georges Bank totaling 5,500 square miles were closed in 1994 after decades of intense fishing pressure had reduced the numbers of several commercially important groundfish species. Population levels of cod, haddock, and several species of flounders were at all time low levels, and declining, when the emergency closures were enacted.

Scallop vessels, in turn, were hit very hard by this closure. Even though the scallop populations in the closed areas were at stable levels, the ban prohibited the use of all mobile gear in those regions. Scallopers, already heavily regulated, were now unable to fish on some of the historically most productive scallop areas of the bank. This action displaced fishing effort, and concentrated it in the remaining open areas in southern New England and the mid-Atlantic, producing greater fishing pressure on the scallop populations in those areas.

The experimental fishery was undertaken in August and September of 1998 to quantify scallop distribution and density within the closed area. The study consisted of six commercial vessels each staffed with a scientific team.

Each vessel sampled 160 predetermined stations with 10 minute tows over the course of the 14 day trip. The gear used by the vessels consisted of two standard 15-foot New Bedford style dredges. Experiments were conducted to obtain estimates of dredge efficiency, and modifications were made to this gear to conduct experiments on minimizing groundfish bycatch. In all, over 1,000 tows were completed by the participating vessels.

From: The Crest (1) 1.

TEACHER RECEIVES 1999 BRASS BLUEGILL AWARD

Jean Ward, a teacher at Moulton Elementary School in Des Moines, Iowa, was awarded the "1999 Brass Bluegill" award for promoting fishing education in Iowa.

The award is presented annually to one educator in Iowa who promotes fishing as a lifetime skill through educational programs. Ward received the award for her work in the Moulton *Fish Iowa!* program, a school-based effort involving both students and the community in fishing education.

Fish Iowa! is a DNR program providing a module for schools to use as a teaching aid to promote fishing as a lifetime skill. The basics of conservation, safety and angling are covered through a variety of teaching aids

The Brass Bluegill Award was initiated in 1997 by the DNR Aquatic Education Program and Outdoor Technologies Group in Spirit Lake, the nations' largest fishing tackle manufacturer. The company also donated 24 spinning rods and reels to Moulton School.

Could AIFRB Districts reward teachers for Environmental or Natural Science education?

District Directors

Alaska, Northern
Steven K. Davis
17508 Toakoana Way
Eagle River, AK 99577
ancskd@dames.com

Alaska, Southeast
Bruce Wing
P.O. Box 210265
Auke Bay, AK 99821-0265
bruce.wing@noaa.gov

Atlantic Maritime
Vacant

Arizona - New Mexico
G. Morris Southward
College of Agri & Home
Eco. Statistics & Res. Inst.
New Mexico State University
Box 3130
Las Cruces, New Mexico 88003
southward@nmsu.edu

California, Northern
Thomas Moore
California Dept. of Fish and Game
P.O. Box 1560
Bodega Bay, CA 94923
mooretom@msn.com

California, Southern
Kevin Hill
California Dept. Fish and Game
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, CA 92038
khill@ucsd.edu

Capital
Frank M. Panek
National Park Service
4401 N. Fairfax Dr., RM 810-D
MD-820 ARLSQ
Arlington, VA 22203
frank_panek@fws.gov

Carolina
Mark Collins
S. Carolina Dept. Nat. Res.
P.O. Box 12559
Charleston, SC 29422-2559
collinsm@cofc.edu

Florida
Thomas W. Schmidt
USDI Nat'l. Park Service
Everglades Nat'l. Pk., S. Fla. Res. Ctr.
P.O. Box 279
Homestead, FLA 33030
tom_schmidt@nps.gov

Great Lakes, South Central
Dora R. Passino-Reader
National Fish. Center
1451 Green Road
Ann Arbor, MI 48105-2897
dora_reader@usgs.gov

Gulf of Mexico, Northeast
Vacant

Keystone
Barbara E. Warkentine
1329 Balcom Avenue
Bronx, NY 10461
bewlc@cunyvm.cuny.edu

New England
John B. Pearce
Northeast Fisheries Center
166 Water Street
Woods Hole, MA 02543-1097
jack.pearce@noaa.gov

Oregon-SW Washington
John F. Palmisano
1990 NW 156th Avenue
Beaverton, OR 97006-5307
johnjpbc@aol.com

Texas
James Nance
Galveston Laboratory
SE Fisheries Science Center NMFS
4700 Avenue, U
Galveston, TX 77551
James.M.Nance@noaa.gov

Washington, NW
Robert (Bud) Burgner
University of Washington
Fisheries Research Institute
Box 357980
Seattle, WA 98195-7980

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, 1329 Balcom Ave., Bronx, NY 10461, bewlc@cunyvm.cuny.edu -Secretary; Joseph Rachlin, Lehman College Bio., Bedford Park Blvd. West, Bronx, New York 10468, rachlin@alpha.lehman.cuny.edu -Treasurer. ISSN-8755-0075

FIRST CLASS

American Institute of Fishery Research Biologists
c/o Joseph Rachlin
Lehman College, Biology
250 Bedford Park Boulevard West
Bronx, NY 10468-1589
Address Correction Requested

FIRST CLASS
U.S. Postage
PAID
Permit No. 92
Morehead City, NC 28557

**********AUTO**MIXED AADC 285
Dr. William H. Bayliff 5
IATTC-SCRIPPS INSTITUTE OF OCEANOGRAPHY
8604 LA JOLLA SHORES DR
LA JOLLA CA 92037-1508

American Institute of Fishery Research Biologists

. . . BRIEFS . . .

VOL. 28, NO 4 JULY, AUGUST, 1999

FELLOW LACKEY NAMED FULBRIGHT SCHOLAR

Dr. Robert T. Lackey, Associate Director for Science at the U.S. Environmental Protection Agency laboratory in Corvallis, Oregon, has been selected as a 1999-2000 Fulbright Scholar.

An internationally recognized authority on the links between ecological science and public policy, Lackey will continue his research and study during a six-month Fulbright tenure at the University of Northern British Columbia (UNBC) in Prince George, British Columbia. He will also teach a graduate-level course at UNBC on ecological science and policy.

Lackey's research focuses on ecosystem health, ecosystem management, and ecological risk assessment – specifically studying current ecological policy issues to identify the exact type of scientific information needed by decision-makers. EPA and other organizations have recognized that many of today's environmental problems cannot be solved through the traditional "command and control" approaches that address only air or water or solid waste in isolation. The most important ecological concerns facing the nation today are not isolated threats to the environment, but large-scale, often subtle stressors such as immense changes in land use, vast hydrologic modification of watersheds, widespread introduction of exotic or alien species and their resulting ecological consequences, climate change and all of its ecological ramifications, and the ecological repercussions of decreasing biological diversity.

Lackey will be at UNBC, a relatively new institution established in 1994, from January until July 2000. The university is an ideal location for his research because it focuses principally on environmental and natural resource issues. The university has attracted a cosmopolitan, international faculty.

In addition to his current position as Associate Director for Science at the EPA research facility in Corvallis, Lackey is courtesy professor of fisheries science and adjunct professor of political science at Oregon State University, where he regularly teaches a graduate course in ecological policy. For the past 30 years he has been involved with a range of environmental issues from positions in government and academia. He continues an active program of research and scholarly study, having authored 75 scientific journal articles, written a book on fisheries science, and edited three others.

Lackey holds a Bachelor of Science degree in Fisheries Science from Humboldt State University; a Master of Science degree in Zoology from the University of Maine, and a Doctor of Philosophy degree in Fisheries and Wildlife Science from Colorado State University. Prior to joining the EPA, he was a tenured associate professor of fisheries science at Virginia Polytechnic Institute and State University. He is a Certified Fisheries Scientist and a Fellow in the American Institute of Fishery Research Biologists (Member, 1973, Fellow, 1990).

The Fulbright American Scholar Program annually supports nearly 700 American scholars and professionals for study in more than 100 countries, where they lecture or conduct research in a wide variety of academic and professional fields, ranging from art history to zoology. The Fulbright Program, established in 1946 under congressional legislation, introduced by former Senator J. William Fulbright of Arkansas, is considered the U.S. government's flagship international exchange program. It is designed to increase mutual understanding between the people of the United States and those of other countries. •

Salmon Restoration Cost

On June 28, 1999, the Portland Oregonian released an estimated state/federal cost of salmon recovery for FY2000 of $935.5 million, including the expenditures of 6 Cabinet-level agencies and 4 states.

— Portland Oregonian

Nominating Committee Chosen

President Sakagawa has named a nominating committee of Vaughn Anthony, Clark Hubbs, and Jack Helle (Chair) to choose candidates for the position of President-elect to assume office in August 2000. The committee welcomes suggestions. Candidates must be Fellows and from geographic regions other than the southwestern U.S. and western Mexico.

BLAXTER PRESENTED: AIFRB OUTSTANDING ACHIEVEMENT AWARD

From Clark Hubbs: I enclose a photo of the presentation of the AIFRB Outstanding Achievement Award to John Blaxter. It was at the banquet of the Fisheries Society of the British Islands. The award went well, and the AIFRB had a prominent role at that meeting in St. Andrews, Scotland. John Blaxter plays golf, I do not.

John Blaxter is a world leader in the study of the early life histories of fishes.

[John Blaxter (*center*) accepts AIFRB Outstanding Achievement Award from AIFRB Past President Clark Hubbs (*right*) at the recent Annual Meeting of the Fisheries Society of the British Isles. Paul Hart, President of Fisheries Society of the British Isles is at left.]

Ken Warner- (Member 70, Fellow 71) A Golden Member AFS

While it is the editorial policy of *Briefs* to mention the other fisheries organization as rarely as possible, we congratulate Ken Warner on a lifetime of service to fisheries science (for the State of Maine) and on being awarded Golden Membership (for 50 years of tenure) in the American Fisheries Society.

Member Peter Auster (Associate, 1982, Member, 1992) Receives Prestigious Pew Marine Conservation Fellowship

BOSTON, July 12 -/E-Wire/— Tracking dangerous marine pollutants across the Arctic realm, documenting degradation at the depths of the sea, and empowering poor African villagers to save their deteriorating coasts are among the initiatives of 11 ocean crusaders from around the world named as the 1999 Pew Marine Conservation Fellows, the world's largest and most prestigious award for preservation of the sea.

The recipients of the tenth annual Pew Fellowships range from an environmental journalist, to academicians and national policymakers, to an underwater photographer and an environmental lawyer. They will each receive an award of $150,000 to carry out an innovative, interdisciplinary project that addresses an urgent conservation challenge facing our seas. The total of $1.5 million awarded annually by the Pew Fellows Program in Marine Conservation makes the fellowships the world's largest award for marine conservationists.

The 1999 recipients come from Australia, Mexico, the Philippines, Tanzania, and the United States. They are: Peter J. Auster, National Undersea Research Center, Connecticut, USA a fisheries ecologist who will assess degradation of the deep-shelf sea floor from bottom trawling.

Peter J. Auster is the science director at the National Undersea Research Center in Connecticut and serves as research coordinator for Stellwagen Bank National Marine Sanctuary. He is a specialist in fish ecology, and his current research focuses on the habitat ecology of fishes and fishing gear impacts. With his Pew Fellowship, Mr. Auster will address overexploitation of demersal fish populations by developing rapid ecological assessment methods for scientific habitat classification and evaluation in deeper outer continental shelf systems, for which no common assessment and comparison schemes currently exist. Using cost-effective underwater video techniques for mapping and monitoring, he will document the effects of fishing on the sea floor and collect biodiversity data to support more sustainable fisheries management measures. In addition, Mr. Auster will develop and distribute educational materials to inform the public about the diversity of ocean habitats and their importance in supporting healthy stocks of fish.

Other recipients are:

Angel C. Alcala and Garry R. Russ: Dr. Alcala— A research professor at Silliman University in the Philippines, has more than 30 years experience in tropical marine resource conservation throughout Southeast Asia in academic, government, and consultant positions. Dr. Russ is an associate professor of Marine Biology at James Cook University in Australia where he specializes in quantitative analysis of marine reserves as protective management tools.

Marla S. Cone, Los Angeles Times, California, USA—An environmental journalist investigating marine pollution in the Arctic realm.

Benjamin E. Cuker, Hampton University, Virginia, USA— An educator who will establish a marine conservation biology training program for minority students.

Roberto R. Enriquez Andrade, Universidad Autonoma de Baja California, Mexico—A coastal marine scientist examining economic incentives for conservation.

James A. Estes, U.S. Geological Survey, California, USA— A government researcher defining criteria for reserves to protect marine mammals in the Bering Sea.

Burr Heneman, Commonweal, California, USA—A marine policy consultant fostering implementation of California's new Marine Life Management Act.

Magnus Ngoile, National Environmental Management Council, Tanzania— Tanzania's top environmental official who will build capacity of poor villagers to protect their coastline.

Alison Rieser, University of Maine School of Law, Maine, USA— An environmental lawyer producing a textbook to educate scientists how to apply the law for conservation.

Norbert Wu, Norbert Wu Photography, California, USA—An underwater photographer who will document degradation of our underwater realm.

"To comprehensively address the challenges facing our oceans requires the combined efforts of individuals with diverse skills and expertise," said Cynthia Robinson, Associate Director of the Pew Fellows Program in Marine Conservation. "These awards are about much more than leadership. We're not focusing on past achievement, but rather, investing in future solutions. The 1999 Pew Fellows are innovators – individuals willing to take risks and apply new approaches to improve the status and sustainability of the World's seas."

The Pew Fellows Program in Marine Conservation is an initiative of the Pew Charitable Trusts in partnership with the New England Aquarium. The Pew Fellowships are highly competitive awards targeted primarily to mid-career professionals working in marine ecosystem conservation, fisheries management, marine contamination, and coastal conservation.

Nominations for Pew Fellowships are made through an international network of environmental experts. Review and selection is conducted by a 12-member international advisory committee. Selection is based on the applied conservation merit of the proposal, the individual's professional achievement, and the potential impact of the project. Since the launch of the awards in 1990, Pew Fellows have been chosen from throughout the United States and countries around the world including Argentina, Australia, Brazil, Canada, Chile, India, Jamaica, Kenya, Mexico, Palau, Poland, Russia, South Africa, Sweden, Tanzania, Turkey, the UK, and Vietnam.

The Pew Charitable Trusts are among the largest philanthropies in the United States supporting activities in the environment, culture, education, health and human services, public policy, and religion. Based in Philadelphia, Pennsylvania, the Trusts make strategic investments to encourage civic engagement in addressing critical issues and effecting social change.

The New England Aquarium (NEAq) opened in 1969 as the nation's first modern aquarium and currently attracts more than 1.2 million visitors each year. NEAq is known for its role in regional, national, and international marine conservation efforts and for its innovative educational programs.

More information on the 1999 Pew Marine Conservation Fellows is available on the Pew Fellows Program website:

www.pewmarine.org or
Contact Cynthia Robinson, Associate Director of the Pew Fellows Program, at 617-720-5100 or by E-mail: crobinson@neaq.org.

Scottish Scallop Harvesting Ban

In mid-July 1999, the Scottish Executive took action to ban fishing for scallops in an 8,000 square mile area off the west coast of Scotland, due to high levels of amnesic shellfish poisoning toxin found by a regular sampling program.

—BBC News

AIFRB District Annual Reports

(as available 13 August 1999)

Southern California

District Business Meetings:

The Southern California District held three business meetings over the past year. All meetings were conducted as dinner socials at the El Adobe restaurant in San Juan Capistrano, California. Local fisheries researchers were invited to speak at each event.

Twenty-four members and guests attended the September 2, 1998 meeting. District member Kevin Herbinson of Southern California Edison made a presentation entitled, "Using fish impingement data from coastal electric generating stations to better understand nearshore fish populations".

At the January 13, 1999 meeting, Mr. Craig Heberer of the National Marine Fisheries Service (Southwest Region Office) presented a paper titled, "The Fresh Tuna Longline Fishery of Micronesia". Twenty-one members and guests were present.

The third meeting was held April 14, 1999. At the meeting, a panel was formed to judge papers at the annual meeting of the Southern California Academy of Sciences. A presentation was given by Dr. John Butler of the Southwest Fisheries Science Center. His presentation was entitled, "Stampede to Harvest: The Cowcod Fishery in California". Twenty members and guests were present.

District Student Awards:

For the past four years, the Southern California District has offered an award for best student poster in fisheries biology at the annual California Cooperative Oceanic Fisheries Investigations conference. At the beginning of November 1998, members John Butler, Paul Reilly, and Robert Lee attended the conference held in Pacific Grove, California to help judge the posters. The panel decided to divide the award between two students: Ms. Ginger Rebstock (Scripps Institution of Oceanography) for her poster titled, "Calanoid copepods off southern California in the 1950's and 1990's: a tale of two decades; and Ms. Carolyn Lundquist (University of California, Davis) for her poster titled, "The effect of density and spatial distribution on reproduction of a broadcast spawning invertebrate: the red sea urchin". Certificates of Recognition and $100 checks were given to each student.

For the ninth consecutive year, the Southern California District has offered an award to honor graduate and undergraduate students for fisheries-related papers presented at annual meetings of the Southern California Academy of Sciences. Student presenters are to be judged by a panel of district members and the recipient receives a certificate of recognition and check for $200. The 1999 meeting was held April 30 and May 1 at California State University, Dominguez Hills. The district provided the award to Mr. Fredrik J. Stengard (Department of Marine Sciences, University of South Florida) for his presentation entitled, "Implications of lactate dehydrogenase (LDH) isozyme patterns for Gadiform systematics: evaluation of a putative synapomorphy and comments on the phylogenetic position of Gobiesociformes". I would like to thank members Shelly Moore, Jim Allen, Robin Gartman, and Joyce Andrew for helping me with the tough task of choosing the best of so many excellent presentations.

Kevin T. Hill — Director

Northern California

District Membership:

District Director- Tom Moore, 707-875-4261, tmoore@dfg2.ca.gov
Assistant Director- Andy Jahn, 510-272-1568, ajahn@flash.net
Secretary/Treasurer- Tom Jow, 408-446-5603, rmbiotj@aol.com
AIFRB Research Assistant Awards Chair- Tom Lambert, 510-866-5844, trl2@pge.com

We have a mailing list of about 90, of which about 50 we never hear from. An active roster would include: 1 Fellow emeritus; 2 Fellows; 16 members; 5 associates.

District Activities

I just wanted to mention that last year's annual report never got delivered, even though I tried E-mail (Clark's account had problems at the time) and thought I had succeeded after I faxed it to the hotel and they assured me they would deliver it to the BOC. I have attached a copy to this report.

The district has, in recent years, had a business meeting in late summer to hear about the BOC meeting and to plan for the upcoming year's activities. However, there were few members in addition to district officers that opted to attend. It was decided to integrate this planning aspect into the first of our usual four meetings held each year.

Our first dinner meeting of the year was in Oakland on 12 November and featured Harrison "Skip" Stubs presenting underwater videos of humpback whale competitive groups in Hawaii and also underwater videos of Guadalupe Island, Mexico. Seventeen members attended, and the presentation was well worth lugging the 200-pound television monitor from the parking lot to the second story of the restaurant.

The annual District Banquet was held at the Hong Kong Seafood Restaurant in San Francisco on 23 January. Our most well-attended annual event drew 38 members and guests who enjoyed an excellent ten-course banquet.

Our next dinner meeting was held in San Rafael on 18 March with Konstantin Karpov (CDFG) talking on the status and management of California's abalone resources. An excellent talk illustrating the dangers of using fishery dependent data and subsequent serial depletion of a multi-species resource. Seventeen were in attendance.

In an effort to break the seventeen-member barrier, we featured what we (officers) thought was a sure-fire topic to gather a good crowd at our last dinner meeting of the year. Dr. Bob Spies, President of Applied Marine Sciences and Chief Scientist to the Exxon Valdez Trustee Council, gave a high-tech computerized video presentation on the Exxon Valdez oil spill, its impact on resources, and results of restoration efforts in the 10 years following the spill. Close to one billion dollars is in the indefinite trust, almost 300 peer-reviewed research papers have been published, and plans for long-term monitoring are being reviewed at present. A most excellent and informative behind-the-scenes look at this catastrophe and unprecedented research opportunity. Alas, attendance was, once again, seventeen, all of which were not members.

District Plans and Objectives for 1999-2000

1) Try and increase meeting attendance.

Currently, we rotate the meetings around the S.F. Bay area and try and present stimulating and current topics. In addition to notifying members, we are using fax and E-mail to post meeting notices to other venues.

2) Increase Northern Calif. District/ AIFRB membership.

Propose the creation of an AIFRB Central Calif. District centered in the Monterey area. This location is home to universities, agencies, and private foundations involved in fisheries and oceanographic research. A number of the Northern District's members reside in this area, which given the congested traffic conditions present at most hours of these days, can be as much as a 3-hour drive from many of our meetings. Further detail in my Regional Director's report.

3) Work with Southern Calif. District on Cooperative symposium to reach non-member fisheries professionals.

Talked with Kevin Hill (Southern Calif. District Director) about this concept. Need a good topic and a good location to maximize attendance. Plan to further pursue this in the 1999-2000 period. I am open to any suggestions by members.

Tom Moore — Director

WASHINGTON, NW

As you know, the Washington NW district has been mostly inactive the last couple of years. Gary Sakagawa called me and asked me to get something going and I thought Bud Burgner (retired) was going to take over, but that was not to be. Instead, I have agreed to serve as the district director, upon which all the AIFRB stuff that Bob Donnelly, Pat Livingston and Burgner had accumulated was dumped in my office – that was my inauguration! I have now gone through all of the physical AIFRB materials I was given (but haven't translated/converted all of Pat's computer files yet) and have a better feel for AIFRB and what districts might do, including realizing that an annual report was due to you on 7/2/99! Although I may be too late for any good to come of it, I thought I would E-mail you a short report today so that when I'm in Charlotte (I have all my reservations made) I don't have to spend the whole time avoiding Gary.

This last year, as Bud and I stumbled around with the District Directorship issue, we ended up with only one meeting – but it was (I modestly proclaim) a GREAT one! I put the program together, did the advertising, etc., with the help of my graduate students, but Ken Chew made the arrangements for our multi-course (maybe 15 courses) Chinese dinner, which was delicious, and then we had an outstanding slide presentation by Dr. Greg Jensen on how species and invertebrate assemblages in temperate and tropical habitats are more the same than they are different. Greg is an exceptionally good underwater photographer (see his book, "Pacific Coast Crabs and Shrimps") and really wowed us — a mixed crowd of 71 people, students (undergrads and grads), professionals, spouses, and friends. The UW School of Fisheries (SOF) subsidized the students so their cost was only $10 per student (vs. $18 for the rest of us), and the event broke even financially because of the "willingness" of the few people who said they would come, but did not, to pay.

I actually tried to set up another meeting to honor Dr. Kate Meyers, a recent Ph.D. recipient and long time ***very*** hard-working AIFRB member (as you know better than I do), but Kate was on a tight schedule because of field work, and at the last minute we were bumped off the SOF agenda for a candidate applying for an open position at the SOF and we could not reschedule Kate (wanted to do it with the SOF to recognize Kate's Ph.D.).

However, I must confess, in a way I am glad we got bumped because we are now scheduling an autumn time meeting to honor Kate, which means she can give her Ph.D. work (done in Japan) in a seminar to the AIFRB and other scientist-types here at the SOF, with seafood snacks provided by her group and AIFRB, and then have the annual Chinese dinner for everyone with she and her group telling about their high seas salmon work/exploits with the Japanese and Russians in a much more informal manner – or something like that, I'm working on it.

One thing I'm wondering is if there might be a more formal AIFRB district award that I could present Kate with at our district meeting in the autumn – I'll be checking on this at the Charlotte meeting; and I am also looking forward to learning what has worked and not worked in the district meetings for other district directors.

One thing I need to do soon is to get some people to help me with refreshments, E-mailings (wish everyone had), mailings, etc. – plus maybe getting the district web site newsletter going, etc., etc. I know this is old hat to you and Gary, but I need to work it out. I have a ***really*** heavy teaching load next year (and then much easier for the following years), but plan next year to have one meeting per quarter and then see in the following

years if the membership wants more than that. The two really big advantages of AIFRB to me (compared to AFS) are that a) it is a "non-commercial" organization, and b) district meetings offer local interactions way better than any of the AFS meetings.

Didn't realize it, but according to the Membership Directory I've been in AIFRB since 1972 when I was a graduate student (a total of 27 years!). Hard for me to believe, but it sure is right.

Bruce Miller — Director

Southeast Alaska

There has not been a great deal of District activity this past year. Most of my activity as District Director has been limited to correspondence and discussions with members about potential activities. Scheduled meetings and even informal social activities seem to conflict with everyone's travel and other meetings. We did display the AIFRB poster at the 15th International Symposium on Biotelemetry, May 9-14, 1999 in Juneau, Alaska.

The Southeast Alaska District will co-host a pot luck picnic/baseball game July 18, 1999. This is one of the traditional activities associated with visits of the RV *Oshiro Maru* to Juneau, Alaska. Participating hosts are the American Institute of Fisheries Research Biologists Southeast Alaska District, University of Alaska Fairbanks School of Oceans and Fisheries, and National Marine Fisheries Service Auke Bay Laboratory.

Bruce L. Wing — Director

South Central Great Lakes

On July 24, 1998, the South Central Great Lakes District held a summer barbecue and meeting, graciously hosted by Carlos and Norma Fetterolf, at their spacious home. The meeting attendees included Dr. Stan Smith, an organizer of the District in 1968. At the meeting, after sufficient reminiscing of the District's 30 years, several **action items** were identified: 1) higher visibility by newsletter, website, and distribution of brochures; 2) sponsorship of seminars; and 3) attraction of younger members.

An evening seminar was co-sponsored by SCGL District and the Hooper Aquatic Seminar Series of the University of Michigan, School of Natural Resources, on February 23, 1999. Dr. Jeff Schaeffer of the Great Lakes Science Center, USGS, Ann Arbor, MI., presented a seminar titled, "Reducing Hooking Mortality in Marine Fisheries: What Works and What Doesn't". His research was conducted in the Gulf of Mexico while he was on the faculty of the University of Tampa, Tampa, FL. He concluded that barbless hooks could be as effective as barbed hooks, offered few disadvantages for anglers, and were "kinder to the fish".

The SCGL District submitted several news items to AIFRB *BRIEFS*, some of which were published. The District has begun work on a website, using a university server.

The SCGL District produced Newsletter Number 1, which was sent by E-mail and some snail mail to fishery institutions, departments, and biologists within the geographic area. Other announcements of awards (Research Assistant Award) and upcoming events were likewise sent out.

The treasury balance is $107.52, which includes a $100.00 loan from the personal purses of the officers. We received reimbursements from the parent AIFRB to cover postage, etc.

Objectives for 1999-2000 are as follows: 1) Continue co-sponsoring seminars with the University of Michigan and seek co-sponsoring of seminars with Michigan State University, E. Lansing [younger scientists are thus reached on the campuses]; 2) Increase visibility by establishing a website; 3) Seek greater involvement of members; 4) Continue communication with fishery biologists, both members and non-members, by District Newsletter, E-mail, and snail mail announcements; 5) Continue sending contributions to BRIEFS [and AIFRB future web site] and encourage other members to send contributions; and 6) Continue announcing AIFRB awards and soliciting nominations for awards, especially Research Assistance Award.

District Officers for 1998-1999:

Dr. Dora Passino-Reader, President,
dora_reader@usgs.gov,
Tel. (734) 214-7229
Dr. Neal Foster, Secretary-Treasurer,
neal_foster@usgs.gov,
Tel. (734) 214-7264 or 663-0756

Dora Passino-Reader, — Director

Keystone

The Keystone District currently has 46 active members. Five of the District's members attended a seminar given at the CUNY (City University of New York). This allowed the district to hold an informal meeting following the seminar. Topics discussed were: 1) establishing a District directory; 2) having the District's history placed on the AIFRB webpage; 3) recruitment and retention of members; 4) establishing an E-mail link to all of the District's members. The meeting of participants all felt that trying to establish a more formal District meeting should be explored, but felt that they may be poorly attended due to other obligations and budgetary constraints. The group also suggested that District members should look for any opportunity to have small, informal gatherings when the opportunity arises (as occurred here) and report their discussions back to the District Director. These District ("satellite") meeting reports could then be disseminated to the membership at large via an electronic newsletter and/or conventional mail.

Members of the District continue to support AIFRB.

Barbara E. Warkentine — Director

1. District Membership Trends and Status (As of January 1999)

Membership Category	1996	1997	1998	1999
Associate	13	10	7	8
Members	22	20	19	19
Fellows	23	18	17	17
Emeritus	12	15	13	13
Total	70	6	56	57

The membership tends reflect the loss of several student associates and the removal from the roles of all members delinquent for 3 years or more. In addition, several members have changed employers or positions and have relocated to other AIFRB Districts. There are 7 Associate and 14 Members that are eligible for promotion. Notices were mailed suggesting that they may wish to upgrade their membership status.

2. District Director Vacancy Announced

In June 1999, District Director Frank Panek was promoted to Fish and Wildlife Administrator (Fisheries Program Supervisor) with the U.S. Fish and Wildlife Service in Hadley, MA. While remaining in the Northeastern States and Eastern Canada Region, he will no longer be able to serve as the Capital District Director. A letter was sent to all District members in the hopes of finding a member willing to assume the roles and responsibilities of the Director. Members were asked to contact either Director Panek or President Sakagawa prior to the August Board of Control Meeting in Charlotte, N.C.

3. District Members Support National Fishing Week Event at Constitution Gardens

Several District members supported and participated in the annual National Fishing Week event sponsored by federal fisheries agencies and the National Fishing Week Steering Committee at Constitution Gardens. As in past years, this event kicked-off a week of meetings and activities celebrating the accomplishments and highlighting the challenges for recreational fisheries management and the roles of Federal, State, and NGO Organizations.

Frank M. Panek — Director

AIFRB Regional Annual Reports (As Available August 13, 1999)

Alaska and Western Canada Region

I hoped to make at least one trip to Nanaimo, British Columbia and one trip to Anchorage, Alaska this past year. Unfortunately, this did not happen.

Presently, the regional membership is distributed as follows:
Northern Alaska: 22 members, concentrated in Anchorage (11) and Fairbanks (5).
Southeast Alaska: 33 members, all but one in the Juneau area.
British Columbia: nine members, with five in the Nanaimo area, two in Vancouver, one in Sidney, and one in Chilliwack.

Bruce Wing

Northeastern States and Eastern Canada Region

This region, which consists of the Capital, New England, and Keystone Districts, has 150 members. Jack Pearce currently directs the New England District and Barbara Warkentine directs the Keystone District. Frank Panek directed the Capital District until he left that position in January 1999. He was given a promotion and relocated to Massachusetts to assume his new responsibilities. Frank served his district well and is commended on a job well done. Prior to leaving his directorship, Frank was actively engaged in finding a replacement Director for the Capital District.

Barbara Warkentine

Palmisano Resigns

Palmisano resigns from Board of Control: Deserves thanks from all AIFRB members for long and dedicated service.

Dear Gary:

After much deliberation, I have decided to resign from the AIFRB Board of Control (BOC), effective immediately, and will no longer serve as Regional and District Director for the Pacific Northwest. It has been an honor to serve AIFRB for the last six years and resigning from the BOC is very difficult. However, there are several substantial reasons for my decision:

1) A term of office for six consecutive years is too long, both for office holder and membership. If a District survives only because of the efforts of one person, then maybe it should not exist. To be viable, a District periodically needs new blood, new ideas, and youthful vigor. While my initial service may have been beneficial, my long term of office may have impeded success.

2) I was never elected to office, but initially appointed as acting Director by Vaughn Anthony in August 1993. Because the District Membership never could be convinced to hold elections, I was subsequently appointed Director by Vaughn, Clark Hubbs, and you over the next 5 years.

3) Because of several conflicts, I will not be able to attend this year's BOC meeting.

The downside of my resignation is extremely obvious. I will miss the fellowship of the BOC and District Members, and related facets. Most of all, I will miss working with you. You have demonstrated a style of leadership needed at AIFRB and it would have been educational and enjoyable to have served under your administration.

Best regards,
John F. Palmisano, Regional Director – NW States

Membership Committee — MEMBERSHIP REPORT TO THE BOARD OF CONTROL 1999

John L. Butler,
Membership Chairperson
NMFS
P.O. Box 271
La Jolla, CA 92038

Dr. John R. Moring
Maine Cooperative Fish &
Wildlife Research Unit
University of Maine,
5751 Murray Hall,
Orono, ME. 04469-5751

Dr. Barbara Warkentine
SUNY, Maritime College
Science Department
Fort Schuyler, Bronx, N.Y. 10465

Dr. Richard Brodeur
NMFS-AFSC
7600 Sand Point Way NE
Seattle, WA. 98115

Dr. Douglas S. Vaughan
Beaufort Laboratory
101 Pivers Island Road
Beaufort, N.C. 28516-9722

The Membership Committee reviewed 18 new applications for membership and 12 requests for promotion. All new applicants were accepted and assigned a rank. All promotions were granted. Of the 18 accepted and assigned rank, 14 have paid dues, 4 are only recently accepted. A breakdown of the ranks assigned follows:

ASSOCIATES (Student)	**6**
ASSOCIATES (Professional)	**1**
MEMBERS	**10**
FELLOW	**2**

The new membership was recruited by the following means: 13 verified as nominated by membership, 5 used applications on brochure along with CV.

The new membership came from the following areas of employment:

28% U.S. Government
16% State
11% Private
11% University Employed
28% Graduate Student

The regions and districts of the 44 persons new to the membership are listed below.

ALASKA AND WESTERN CANADA REGION
Northern Alaska District— 0
Southeast Alaska District— 1

NORTHWESTERN STATES REGION
Northwest Washington District— 1
Oregon Southwest Washington District— 1

SOUTHWESTERN STATES AND WESTERN MEXICO REGION
Northern California District— 3
Southern California District— 0
At Large— 1

CENTRAL STATES AND MIDDLE CANADA REGION
At Large—1

NORTHEASTERN STATES AND EASTERN CANADA REGION
Capital District—1
Keystone District—1
New England District—3
Canada—1

SOUTHEASTERN STATES AND EASTERN MEXICO REGION
Carolina District—1
Florida District—2
Texas District—1

Promotions Granted—
FELLOWS
Dr. Mark R. Collins
Dr. Ronald C. Baird
Dr. Donald A. Wickham
Dr. Jerald S. Ault
Dr. Dora R. Passino-Reader
Dr. Barbara E. Warkentine

The following persons were approved for Emeritus rank provided they were current with their dues:

EMERITUS
Edwin A. Joyce
Fred S.Meyer
James Fribourgh
David Green
Tom Jow

Italy and Driftnet Fishing

On July 15, 1999, the United States and Italy announced an agreement had been concluded on measures to end illegal driftnet fishing by Italian nationals and vessels in the Mediterranean Sea. The new agreement outlines actions Italy has taken, or will take, to eliminate all illegal driftnet fishing, including cooperative measures with the United States to monitor and enforce driftnet regulations.

(Fed. Register, U.S. Information Service Washington File)

CHESAPEAKE BAY OYSTERS

On July 20, 1999, a coalition of 10 MD, VA, and NC scientists announced agreement on a long-range plan to restore oysters in Chesapeake Bay. The plan includes mass construction of artificial oyster reefs on 10% of historic oyster habitat and stronger controls on the spread of oyster diseases. They recommend that the restored oyster habitat should be managed for its ecological value and set aside in sanctuaries where harvesting is prohibited.

The Virginian-Pilot, Richmond Times-Dispatch

ROUND GOBY ARRIVES IN MILWAUKEE

On July 16, 1999, officials of the WI Dept. of Natural Resources announced that the first round goby had been discovered in the Milwaukee harbor. This European fish likely arrived in the Great Lakes in the late 1980's in ship ballast water.

— Milwaukee Journal Sentinel

Research Data Subject to Freedom of Information Act

DATA DISCLOSURE

The official comment period on Office of Management and Budget (OMB) Circular A-110 closed on April 5, 1999. This new law, which has alarmed many in the scientific community, requires all data produced under federally funded awards to be available for release to the public through procedures established under the Freedom of Information Act (FOIA). In March, Ecological Society of America (ESA) President Katherine Gross wrote a letter of comment to OMB on the legislation, outlining her concerns that the law would dramatically extend the scope of FOIA to materials that had never been considered government records (see the ESA website: http://esa.sdsc.edu/ombcirculara.htm#letter). ESA members were also encouraged to comment on law as individual scientists.

Although many from the ESA and the larger scientific community did indeed make comments on the law, citizens from outside the realm of science also made comments by the thousands. Some of those citizens included members of gun organizations, who see the law as a strong tool that could be used to fight anti-gun studies. Other citizens included members of the business community who responded to a call from the U.S. Chamber of Commerce, which posted a directive on their website stating, "This would be the first time the business community has ever been provided with the basis for the bureaucracy imposing $700 billion in annual regulatory costs on us." Members of other business organizations responded to the law differently; some strongly opposed it because it would force them to abandon partnerships with government agencies for fear of losing research privacy and intellectual security in regard to new technologies. Although official numbers have not yet been tabulated, initial reports from OMB indicated that comments in favor of the law far outweighed those who were opposed to it, although many who wrote in favor seemed to have sent a generic form letter.

On January 6, 1999 Representative George Brown (D- CA) introduced H.R. 88, a bill designed to repeal the new law. In a letter sent to several members of Congress on 3 May, Stephen Jay Gould, President of the American Association for the Advancement of Science, officially announced his support of a hearing on Brown's bill, saying that the original provision "was enacted without public debate or the opportunity for the scientific community to assess its impacts on science and the nation... it is important that Congress provide an opportunity for the parties likely to be affected by such a fundamental shift in federal policy to air their concerns."

From Newsource — June 1999

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

MEMBERSHIP SUMMARY 1979 TO 1999 (1979-80 may be incomplete)

	NEW MEMBERSHIP				PROMOTIONS			
Year	Associate	Member	Fellow	Total	Member	Fellow	Emeritus	Total
1979	3(21%)	10	1	**14**	13	37	15	**65**
1980	13(22%)	29	7	**59**	4	11	4	**19**
1981	13(23%)	40	4	**57**	4	10	5	**19**
1982	31(69%)	12	2	**45**	2	3	2	**7**
1983	41(59%)	27	2	**70**	5	7	21	**33**
1984	47(67%)	19	4	**70**	6	13	18	**37**
1985	26(55%)	19	2	**47**	10	11	12	**33**
1986	23(53%)	19	1	**43**	3	2	8	**13**
1987	16(35%)	28	2	**46**	8	10	12	**30**
1988	20(56%)	15	1	**36**	8	8	19	**35**
1989	12(46%)	13	1	**26**	2	6	15	**23**
1990	18(69%)	7	1	**26**	8	21	14	**43**
1991	10(43%)	9	3	**23**	3	2	8	**13**
1992	9(50%)	7	2	**18**	1	2	5	**8**
1993	11(50%)	9	2	**22**	10	10	16	**36**
1994	20(49%)	17	4	**41**	16	26	10	**52**
1995	22(69%)	8	2	**32**	3	2	9	**14**
1996	20(45%)	19	5	**44**	4	2	18	**24**
1997	9	—	—	**9**	—	—	—	—
1998	16	10	5	**31**	3	4	10	**17**
1999	6	10	2	**18**	—	6	5	**11**

I want to again remind the district directors that the bylaws state "The District Directors shall be responsible for the recruitment of new members and the advancement in rank of members in their districts and shall report annually thereon to the Board of Control".

Return of Spawning Shad — A Tribute to Stocking, Passages

Biologists on Maryland's Patuxent River this spring saw something that anglers on the waterway have been looking for since the 1960's: A spawning run of American shad. The fish, which is prized for its fighting ability and once supported the Bay's most valuable commercial fishery, had vanished from the Patuxent and many other Chesapeake tributaries in recent decades. "There had not been any documented runs of American shad there for 30 years," said Steve Minkkinen, of the Maryland Department of Natural Resources. The return is most likely the payoff from recent stocking efforts. Shad is an anadromous fish, which means it spends most of its life swimming along the coast, but returns to its native river to spawn when it reaches maturity, usually between the ages of 4 and 6. The Patuxent fish returned, almost like clockwork, five years after the first 104,000 fish were placed in the river. A rapid rebuild of the stock could result in a future catch-and-release season.

The Patuxent experience may bode well for other rivers around the Bay, which have increasingly turned to huge stocking efforts to rebuild severely depleted populations of the fish that was so abundant in colonial times that settlers boasted they could catch them in frying pans. This year, various agencies stocked more than 27 million shad in more than half a dozen Bay tributaries. That pace was off from last year's record-setting 33 million, but still exceeded the Bay Program goal of stocking 20-25 million a year.

This year's stocking efforts shaped up like this:

- More than 12 million shad were stocked in the Susquehanna and its tributaries, including the North Branch, West Branch, Juniata, Swatara, West Conowago, Conestoga and Conodoguinet.
- About 2 million were stocked in Maryland in the Patuxent, Patapsco and Choptank. (Maryland also stocked an additional 19 million hickory shad, a relative of the American shad, in an effort to rebuild that stock for anglers.)
- About 1 million were stocked in the Potomac.
- The Virginia Department of Game and Inland Fisheries stocked nearly 9 million shad, including 1.4 million in the Pamunkey River – the source of eggs for its stocking program – 6.5 million in the James, and more than 900,000 in the Rivianna, a tributary of the James which reaches into the foothills of the Blue Ridge Mountains.
- Also in Virginia, the Pamunkey Indians are estimated to have stocked about 3 million shad this year. The neighboring Mattaponi Indians also stocked shad, but numbers were not available.

During the early part of this century, shad were the Bay's most valuable commercial 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. Shad disappeared altogether from some rivers. In others, they nearly vanished. In 1979, only 50 shad returned to the Susquehanna, which historically provided the East Coast's largest spawning area, supporting millions of shad. 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 1994.

Last year, the Atlantic States Marine Fisheries Commission – the multistate body responsible for managing migratory fish species – expanded the closure by agreeing to phase out the Atlantic coast ocean shad catch over five years. Some had criticized the coastal fishery for "intercepting" fish from rivers with low populations as they migrate along the coast. Despite those closures, shad have shown little sign of recovering on their own over the years. The healthiest remaining shad run in the Chesapeake was on the Pamunkey River, where Native Americans have operated a shad hatchery to replenish the river since 1918.

States learned from that example, and – in partnerships that involve everyone from multiple management agencies, nonprofit organizations, watermen and even schools – have increasingly turned to large-scale stocking efforts to rebuild the population. "In the '70s and early '80s, we were only averaging a few hundred returning shad a year at the Conowingo Dam," said Richard St. Pierre, Susquehanna River Coordinator for the U.S. Fish and Wildlife Service. "We were never going to build a population on that. That's why we turned to the hatchery operation."

In addition to hatcheries, major efforts have been made to build fish passages at dams such as the Conowingo, reopening spawning grounds which – in some cases – had closed rivers for nearly two centuries.

This spring, shad began passing through a new fish ladder at Boshers Dam in Richmond, the last blockage between the mouth of the James and Lynchburg. At least 16 shad were seen using the passage; more may have gone through unobserved.

Biologists hope that releasing fish upstream of Boshers will "imprint" those areas on the small fish so they will return there to spawn, restoring runs to places like Shadwell on the Rivianna River, where colonial records show Thomas Jefferson would purchase the fish. Later this year, work is to be completed on a fish passage at the York Haven dam on the Susquehanna near Harrisburg. With the passages that were completed at three downstream dams in recent years, this will reopen almost the entire river to shad. This year, fish passages at downstream dams on the Susquehanna worked well: Nearly 70,000 shad passed Conowingo, the southernmost dam – the second best year of operation for the elevator-like fish lift that carried shad over the 100-foot high structure since 1991.

Of those, 34,702 passed Holtwood, the next dam, and 34,209 passed Safe Harbor, the last dam before York Haven. Another 5,500 fish were hauled by truck from Conowingo and released north of York Haven.

"Because of the low river flows, our fish passages did well this year," St. Pierre said. If the fish passed beyond the dams spawn successfully, their young – along with those released by hatchery "could mean a real good year to look forward to down the line."

On a third major project this year, a fish passage is to be completed on the Little Falls Dam on the Potomac, opening the river between the dam and the Great Falls northwest of Washington. Though only a 10-mile stretch of river, the area between the dam and the falls historically was a prime spawning site for shad, with historical records indicating that large numbers of shad congregated below the falls. The shad stocked in the Potomac were all placed above the Little Falls Dam in the hope that they will return to that stretch when the dam is breached. "The shad have no genetic memory because the area had been closed since the 1950's," said Jim Cummins, of the Interstate Commission on the Potomac River Basin. "That's another reason for the stocking effort, to imprint them."

From Bay Journal — July-August 1999

Invasive Species Council

On July 22, 1999, the Invasive Species Council created under the authority of Executive Order 13112 held its inaugural meeting in Washington, DC. The Administration's proposed FY2000 budget is reported to include $28.8 million more for invasive species concerns than the approximately $4.5 million appropriated for this purpose in FY1999.

— Knight Rider Newspapers, U.S. Information Service Washington File, Lehigh Valley (PA) Morning Call.

Snake River Chinook Salmon Extinction?

On July 9, 1999, Trout Unlimited released a report "Status and Expected Time to Extinction for Snake River Spring and Summer Chinook Stocks" [http://www.tu.org/index.html]. This study predicts that, at current rates of decline, all Snake River chinook salmon will become extinct between 2008 and 2017.

Environment News Service, Trout Unlimited press release

HELPING CONSUMERS PROTECT OCEAN RESOURCES

If all goes as planned, the label bearing a fish with a check mark on its back will begin appearing on fish products in selected grocery stores and restaurants before the end of this year. The "ecolabel" is part of the Marine Stewardship Council's (MSC) new program to address the problem of overfishing, an environmental crisis which is threatening to deplete world fish stocks and deprive rich and poor nations alike of this valuable food source (see May/June 1999 FOCUS).

The Marine Stewardship Council was formed in 1996 by World Wildlife Fund and Unilever, one of the world's largest buyers of frozen fish. WWF and Unilever established the MSC as the first organization to bring together public and private sector efforts to help reverse the global crisis resulting from systematic overfishing.

According to the United Nations Food and Agriculture Organization, at least 60 percent of the world's 200 most valuable fish species are currently either overfished or fished to the limit. Nearly 25 percent of the world's marine catch – around 30 million tons per year, including fish, marine mammals, and sea turtles – is thrown back into the ocean either dead or dying, a problem known as bycatch. And some fishing methods adversely affect the marine web of life by destroying bottom habitat or disrupting the food chain.

In April, the Marine Stewardship Council announced the first independent global certification standard for fisheries that voluntarily adopt sustainable practices.

"To receive certification, fisheries must be well-managed, maintain healthy fish stocks, and preserve the surrounding ecosystem," said Scott Burns, who directs WWF's Endangered Seas Campaign. The MSC will accredit specialist organizations or commercial companies to independently certify that fisheries meet standards. The MSC hopes to market demand for specific fish and seafood products which are "marine-friendly".

To date, more than 200 corporate, government, and private organizations from around the world have declared their support for the Marine Stewardship Council. U.S. retailers, who recently signed a letter of support for the MSC include Legal Seafoods, a Boston-based seafood processor and restaurant company; Shaw's Supermarkets, which has 127 stores in New England; and Texas-based Whole Foods Market, Inc., which has 92 stores country-wide.

"As the new MSC label becomes increasingly widespread in the marketplace, we hope it will help alert consumers to seafood that has been caught using methods that do not threaten fisheries or the biological diversity of our ocean resources," added Burns.

From FOCUS — July/August 1999

Alaska, Northern
Steven K. Davis
17508 Toakoana Way
Eagle River, AK 99577
ancskd@dames.com

Alaska, Southeast
Bruce Wing
P.O. Box 210265
Auke Bay, AK 99821-0265
bruce.wing@noaa.gov

Atlantic Maritime
Vacant

Arizona - New Mexico
G. Morris Southward
College of Agri & Home
Eco. Statistics & Res. Inst.
New Mexico State University
Box 3130
Las Cruces, New Mexico 88003
southward@nmsu.edu

California, Northern
Thomas Moore
California Dept. of Fish and Game
P.O. Box 1560
Bodega Bay, CA 94923
mooretom@msn.com

California, Southern
Kevin Hill
California Dept. Fish and Game
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, CA 92038
khill@ucsd.edu

Capital
VACANT

Carolina
Robert L. Dixon
NMFS
101 Pivers Island Road
Beaufort, NC 28516

Florida
Thomas W. Schmidt
USDI Nat'l. Park Service
Everglades Nat'l. Pk., S. Fla. Res. Ctr.
P.O. Box 279
Homestead, FLA 33030
tom_schmidt@nps.gov

Great Lakes, South Central
Dora R. Passino-Reader
National Fish. Center
1451 Green Road
Ann Arbor, MI 48105-2897
dora_reader@usgs.gov

Gulf of Mexico, Northeast
Vacant

Keystone
Barbara E. Warkentine
1329 Balcom Avenue
Bronx, NY 10461
bewlc@cunyvm.cuny.edu

New England
John B. Pearce
Northeast Fisheries Center
166 Water Street
Woods Hole, MA 02543-1097
jack.pearce@noaa.gov

Oregon-SW Washington
VACANT

Texas
James Nance
Galveston Laboratory
SE Fisheries Science Center NMFS
4700 Avenue, U
Galveston, TX 77551
James.M.Nance@noaa.gov

Washington, NW
Robert (Bud) Burgner
University of Washington
Fisheries Research Institute
Box 357980
Seattle, WA 98195-7980

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, 1329 Balcom Ave., Bronx, NY 10461, bewlc@cunyvm.cuny.edu -Secretary; Joseph Rachlin, Lehman College Bio., Bedford Park Blvd. West; Bronx, New York 10468, rachlin@alpha.lehman.cuny.edu -Treasurer. ISSN-8755-0075

**********AUTO**MIXED AADC 285
Dr. William H. Bayliff 4
IATTC-SCRIPPS INSTITUTE OF OCEANOGRAPHY
8604 LA JOLLA SHORES DR
LA JOLLA CA 92037-1508

FAYETTEVILLE NC 282 #1 09/23/99 16:58

American Institute of Fishery Research Biologists
c/o Joseph Rachlin
Lehman College, Biology
250 Bedford Park Boulevard West
Bronx, NY 10468-1589

Address Correction Requested

FIRST CLASS

FIRST CLASS
U.S. Postage
PAID
Permit No. 92
Morehead City, NC 28557

American Institute of Fishery Research Biologists

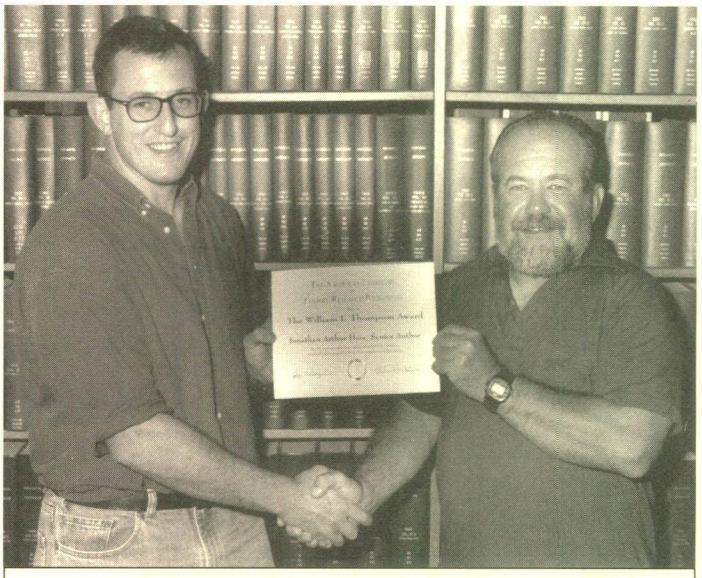
. . . BRIEFS . . .

VOL. 28, NO 5 SEPTEMBER, OCTOBER 1999

1997 THOMPSON AWARD TO HARE

The recipient of the W.F. Thompson Award for 1997 is Dr. Jonathan Hare for his manuscript, "Size, growth, development, and survival of the planktonic larvae of *Pomatomus saltatrix*", which appeared in Ecology, 78 (8), pp. 2415-2431, 1997. In 1987, Jon received a B.A. in biology from Wesleyan University, Middletown, Connecticut, and he completed his Ph.D. in oceanography from State University of New York at Stony Brook in 1994. Jon is employed by the National Ocean Service, Center for Coastal Fisheries and Habitat Research at Beaufort, North Carolina. Jon's research interests include: the biological and physical processes that drive the dynamics of marine fishes and determine the structure of marine fish communities; biological-physical coupling in the marine environment; and larval fish ecology and taxonomy. Jon, his wife, Kim, and their 2-year-old son, John Robert, live in a quaint subdivision outside of Beaufort. In his spare time, Jon likes gardening, fishing, and hiking. On special occasions, Jon prefers to honor his Scottish heritage by wearing a kilt.

— Submitted by, Bob Dixon



Dr. Jon Hare (Left) of the National Marine Fisheries Service/National Ocean Service Laboratory at Beaufort, North Carolina accepts from Robert Dixon, Carolina District Director, a certificate signifying the 1997 W.F. Thompson Award for Hare's paper, "Size, growth, development, and survival of the planktonic larvae of the bluefish, Pomatomus saltatrix".

Photo by: Curtis Lewis

Where, oh where has my little display gone?

At last query the AIFRB Traveling Display, last seen in August at the Charlotte, NC AFS – AIFRB meetings, was still on French leave. Anyone know where it is? It vanished mysteriously. Contact John Merriner if you have information.

Cutthroat Trout

The US Fish and Wildlife Service is joining with the states of Colorado, Wyoming, and Utah to restore native Colorado River cutthroat trout before the species is listed as threatened or endangered. The states have targeted 1,700 miles of streams and 650 acres of high lakes for restoration and protection from non-native trout species over the next ten years. Mine pollution, water diversions, livestock overgrazing, and fishing have reduced the fish to less than one percent of their original range in this century.

— From, American Rivers, Summer 1999

BOARD OF CONTROL MEETS: CHARLOTTE, NC

August 28-29, 1999

NEW IDEAS ABOUND!

Attendees:

Left to Right (standing) - Gary Sakagawa, Tom Lambert, John Merriner, Jim Nance, Bruce Wing, Tom Schmidt, Joe Rachlin, Ollie Cope, Pete Cole, Bruce Miller, Tom Moore.

Left to Right (seated) – Barbara Warkentine, Dora Passino-Reader, Clark Hubbs, Jack Helle.

Photo by: Jack Helle

MINUTES (ABRIDGED)

43rd Annual Meeting, Board of Control
Adam's Mark Hotel
Charlotte, North Carolina, 28-29 August 1999

Attendance

President, Gary Sakagawa; Past President, Clark Hubbs; Past President, Jack Helle; Secretary, Barbara Warkentine; Treasurer, Joseph Rachlin; Production Editor, John Merriner.

District and Regional Directors

Alaska & Western Canada: Southeast Alaska, Bruce Wing; Northwestern States: NW Washington, Bruce Miller; SW States & Mexico: Northern California, Thomas Moore; Central States & Middle Canada: Great Lakes, Dora Passino-Reader; Northeastern States & Eastern Canada and Keystone, Barbara Warkentine; Southeast States & Eastern Mexico and Florida, Thomas Schmidt; Texas, James Nance.

Committee Chairs

Associate Research Award Program, Thomas Lambert; Audit Committee, Charles (Pete) Cole.

Guests

Ollie Cope (former BRIEFS Editor), Kenneth Beal, and Carolyn Griswold.

Absent

Vaughn Anthony (Past President), John Butler (Membership Chair), Jack Pearce (Thompson Award Chair & New England District Director), John Palmisano (Oregon-SW Washington District Director), Kevin Hill (Southern California District Director), Robert Dixon (Carolinas District Director), Steven Davis (Northern Alaska District Director), Frank Panek (Capital District Director), G. Morris Southward (Arizona/New Mexico District Director), Gene Huntsman (BRIEFS Editor), and Kate Myers (Archives) were unable to attend the meeting.

Arrangements and Logistics

Carolinas District Director, Robert Dixon, made all the arrangements for the meeting including: having our meeting times posted in the AFS program, arranging for the meeting room, having refreshments during the meeting, reception set-up, and securing an area for displaying the AIFRB poster.

President's Notes

President Sakagawa spent this past year reviewing the activities of AIFRB to acquire a better understanding of how the Institute works. He indicated that our first major objective is to increase membership. By working together and through the development of more aggressive marketing tactics we should be able to bring new members in. District and Regional Directors must begin to outreach within their areas. Districts should also explore the possibility of having joint symposia and/or workshops at local meetings to give AIFRB greater exposure.

Treasurer's Report (Rachlin) — ***see table page 3***

Assets totaled $59,196.14 from various money market funds, stocks, and mutual funds. The checkbook showed a balance of $4,034.19 as of 6 August 1999.

AIFRB cap sales are down. To break even we must recover $1,800.00. The caps are being sold at $12.00 each and can be acquired by contacting either Joseph Rachlin or Barbara Warkentine.

Emeritus Members

The 222 Emeritus members donated $1,480.00 for fiscal 1999, averaged $6.70/Emeritus member, and covered most of the costs attributed to furnishing BRIEFS to them.

Comparison Report
08/08/97 Through 08/06/99

Category Description	08/08/97-08/07/98	08/08/98-08/06/99	Amount Difference
INFLOWS			
AIFRB Cap Sales	0.00	798.00	798.00
Balance Carryover From Last Yr.	3,805.84	3,327.89	-477.95
Ck Recovery	125.12	86.04	-39.08
Dues Receipts	19,916.00	19,600.00	-316.00
JWR CK Deposit	0.00	20.00	20.00
List Rental	100.00	135.00	35.00
Sale of Funds	4,087.09	0.00	-4,087.09
TOTAL INFLOWS	28,034.05	23966.93	-4,067.12
OUTFLOWS			
AIFRB Social	1,045.98	415.73	630.25
Bank Service Chg.	161.37	98.10	63.27
Bd of Control	4,336.33	3,356.04	980.29
Bounced Check	110.00	40.00	70.00
BRIEFS	3,748.31	7,677.23	-3,928.92
District Reimbursement	188.08	113.02	75.06
Distinguish Service Award	126.60	133.25	-6.65
Foreign Check Collection	0.00	60.00	-60.00
Honorarium	1,400.00	0.00	1,400.00
License	0.00	20.00	-20.00
OTHER	2,114.50	0.00	2,114.50
President Costs	0.00	250.00	-250.00
Principles Prof. Conduct	163.29	0.00	163.29
Production	7,389.07	918.09	6,470.98
Reimbursement	52.00	0.00	52.00
Res. Award	2,100.00	3,150.00	-1,050.00
Salmon Plaques	909.00	908.00	1.00
Secretary Exp.	193.66	188.60	5.06
Treasurer's Exp.	667.97	854.68	-186.71
W.F. Thompson	0.00	1,750.00	-1.750.00
TOTAL OUTFLOWS	24,706.16	19,932.74	4773.42
OVERALL TOTAL	3,327.89	4,034.19	706.30

Delinquent Members

The Institute continues to carry a number of delinquent members: 59 owe for 1 year, 29 are two years in arrears, and 31 are three years in arrears. Assuming the $30.00/year dues schedule, these delinquent members are being subsidized by AIFRB at a cost of $6,300.00.

A ***motion*** by treasurer Rachlin to discontinue the membership of those individuals that are three years in arrears on 30 September 1999 was ***seconded*** and unanimously ***approved*** by the BOC.

President Sakagawa strongly encouraged all District Directors to encourage their members to remain in good standing.

Awards

W.F. Thompson Award (Pearce)

The 1997 W.F. Thompson Award went to Jonathan A. Hare for his paper entitled "Size, growth, development, and survival of the planktonic larvae of *Pomatomus saltatrix*", which appeared in Ecology 78 (8), 1997, pp. 2415-2431. (See page 1)

Research Assistance Award (Lambert)

Nine awards were granted, eight for presentations by Associate Members at meetings and one for off-site research. The total amount for this year's awards was $3,150.00.

Chairman Lambert presented some items for discussion: 1) Is this award program a good recruiting device? Chairman Lambert gave some statistics regarding this issue. As of January 12, 1999, 37 of the 142 Associate members received at least one award. As of this same date, five of these 37 members have not paid their 1999 dues, five owe for 1998 and 1999, and five owe for three years. While this may indicate that students are "taking the money and running", there are many that remain and become Members and some even Fellows. Thus this award is looked on as a good recruiting tool. Past President Cole suggested that this award needs to be more vigorously advertised. We need to have it posted on a web-site. This should make it a more viable recruiting tool.

2) Should the Institute sponsor several student-associate members to attend a symposium? After considerable discussion the BOC agreed that this was not acceptable and that the guidelines as stated (presentation of a paper or conducting research at an off-site location) should be maintained.
3) Should award funds for a late 1999 meeting be included in the year 2000 award program? This question revolved around the problem of having a meeting occur in the fall and notification of acceptance for a paper occur after the Associate Research Award's 1 April deadline. The BOC discussed the problem at length with a number of solutions being presented. Past President Hubbs stated that since meetings are posted at least one year in advance an Associate Member can apply for an award pending a later acceptance of his/her paper. However, if the individual does not apply until after the deadline date for this award program that individual is not eligible for funding. The BOC agreed to this policy.
4) Chairman Lambert informed the BOC that, since this award committee has been restructured, the role of its committee members needs to be more clearly defined. President Sakagawa stated that this is a way of getting more members involved. The more people involved the more AIFRB is exposed. By having people who received this award serving as a committee member helps toward retention of members in AIFRB.

Professional Development Award

The outline for this award, which was originally presented at the 1998 BOC, was raised for discussion and possible approval. Treasurer Rachlin indicated that the Institute could afford the $1,000.00 award but in order to do so we might have to tap our reserves. The BOC indicated that there were some language problems associated with the criteria for this award. Since the guideline currently states that the purpose is "to attend national and/or international symposia or conferences", this does not indicate that the individual is serving some function other than being in attendance. The BOC all agreed that an individual must serve some function other than being a passive observer. The BOC all agreed that the criteria need to be more fully defined.

A **motion** by Treasurer Rachlin to table the establishment of the Professional Development Award until the next BOC was **seconded** and unanimously **approved** by the BOC.

Outstanding Achievement Award – Individual

A ***motion*** by Past President Hubbs to give Dr. Saul Saila the Outstanding Achievement Award – Individual was **seconded** and unanimously **approved** by the BOC.

Outstanding Achievement Award – Group

A ***motion*** by Past President Hubbs to give the Fish Disease Laboratory of Leetown West Virginia the Outstanding Achievement Award – Group was **seconded** and unanimously **approved** by the BOC.

Distinguished Service Award

A committee, consisting of C. Hubbs, J. Helle, and C. Cole was appointed by President Sakagawa to consider nominations for this award made a **motion** to give the 1999 Distinguished Service Award to Katherine Myers (AIFRB Archivist) was **seconded** and unanimously **approved** by the BOC.

Membership Committee Report (Warkentine for Butler)

(See *Briefs* July-August 1999)

The committee reviewed 18 new applications for membership and 12 requests for promotion. All new applicants were approved for membership and assigned the ranks of Associate (6), Member (10), or Fellow (2) based on as evaluation of their application documents.

Recruitment of new members has gone down. Last year we had recruited 30 members as opposed to 18 this year. Given the increase in Emeritus members and the loss of others, the Institute needs to enhance its recruitment activities.

Districts must look to their membership to encourage individuals who qualify to seek promotion. As an added suggestion, President Sakagawa indicated that when a member is promoted to Fellow or accepted into AIFRB at this rank, that a press release should be prepared. Through this process AIFRB would have greater visibility. This information should also be shared with the individual's employer. Therefore, when an individual is assigned the rank of Fellow the Membership Committee should acquire a photo, brief biographical sketch, list of local papers, and a list of the individual's supervisors or key administrative personnel.

Publications

BRIEFS Editor's Report (Merriner for Huntsman)

In the absence of BRIEFS Editor Huntsman (playing hooky as usual) Production Editor Merriner gave this report. There is as always a need for information to flow from the districts and the membership to the *Briefs* Editor. Past *Briefs* Editor Ollie Cope indicated that getting material to

publish was always a difficult job. Merriner indicated that if we wanted to we could change the look of *Briefs* the printer would be very happy to do so. One suggestion, which the BOC agreed to, was to have the AIFRB logo printed on the top of the first page.

President Sakagawa said that if we want to re-launch *Briefs* that we will need to 1) have better communications between District Directors and the Editor (e-mail); 2) consider having sub-editors; 3) consider having a color layout and/or a tri-column format. The BOC in discussing these ideas determined that sub-editors already exist in the form of District Directors. Directors Miller and Wing spoke strongly for maintaining the current black and white bi-column format as it is simple and readable. All BOC members agreed that the "Who's Who in AIFRB" column should continue.

Production Editor's Report (Merriner)

Production Editor Merriner reported that membership brochures were updated and sent out to all District Directors. He will also inform Coastal Press of all current changes to be made to the brochures as soon as he gets back to Beaufort, NC. In addition, the new AIFRB stationery was produced and distributed. Anyone needing additional materials should contact J. Merriner.

The Production Editor also indicated that he keeps archives of BRIEFS which consists of 25 copies per issue.

1999 Symposium with AFS and Display (Merriner)

Douglas Vaughan was the organizer of this year's symposium. The theme for the symposium was "New quantitative methods in fisheries stock assessments".

Production Editor Merriner informed the BOC that he had asked District Directors to provide photos and/or interesting information for use on the display. The display was shipped to many districts, at their request, for use at local and national meetings. Editor Merriner updated the display for use at this year's annual meeting of AIFRB and AFS.

Reports from District Directors

For written reports see *Briefs* July-August 1999. The following section includes oral comments and discussions on these reports.

Northern Alaska: No report. Past President Helle agreed to check in on this district to see how they are doing.

Southeast Alaska District: Director Wing reported that members of this district attended the 15th International Symposium on Biotelemetry, May 9-14, 1999 in Juneau, Alaska. AIFRB was a sponsor of this symposium. The district also displayed the AIFRB display at that meeting. The District co-hosted a potluck picnic/baseball game. This event was well attended and served as a way of giving AIFRB exposure.

Northwest Washington: Director Miller has been working hard as this District's newly appointed Director. The District had, in keeping with past traditions, held a very successful dinner/meeting. Their guest speaker, Dr. Greg Jensen, presented a well-received paper on "How species and invertebrate assemblages in temperate and tropical habitats are more the same than they are different". The District is planning to hold a fall meeting to honor Dr. Kate Myers.

Oregon/Southwest Washington District: Director Palmisano informed the Board that he would be resigning from this position. He has served the District for six years and has worked hard at trying to make it function. His resignation leaves this District without a Director. The BOC suggested that, since there is a core of AIFRB members in Corvallis, that a Director might be found in that region. President Sakagawa will look into this.

Arizona–New Mexico: Director Southward forwarded his report to the BOC. The District is small consisting of 13 members. Fisheries biologists are hard to come by in this area.

Past President Hubbs indicated that he will be in New Mexico for a fisheries meeting and will look up Director Southward.

Southern California District: This District held three well-attended business meetings during the year. The District continues its tradition of presenting student awards for best poster in fisheries biology and for the best student paper presented at the S. Calif. Academy of Sciences.

Northern California District: This District continues to hold very successful business meetings. Their goals are to increase meeting attendance, increase membership, and to work with the Southern Calif. District on a cooperative symposium to reach non-member fisheries professionals.

South Central Great Lakes District: Director Passino-Reader indicated that her district co-sponsored an evening seminar, submitted many items to *Briefs*, and produced its own newsletter. Director Passino-Reader outlined their goals for the future, some of which are to increase visibility by establishing a web-site, seek greater involvement of members, and to continue announcing AIFRB awards and soliciting nominations for these awards.

Capital District: Several District members supported and participated in the annual National Fishing Week event sponsored by federal fisheries agencies and the National Fishing Week Steering Committee at Constitution Gardens.

Director Panek has been promoted to Fish and Wildlife Administrator with the US Fish & Wildlife Service in Hadley, MA. Therefore, he informed BOC that he will no longer be this District's Director. Currently this District remains without a Director.

Keystone District: Director Warkentine reported that she was able to hold a small business meeting. Recruitment and more importantly retention of members was seen as a major issue for this District to focus on.

New England District: No Report.

Texas District: No Report.

Florida District: Director Schmidt reported that since his membership is spread out over a great distance it is difficult to have formal meetings. Recruitment efforts are ongoing.

Carolinas District: Director Dixon made arrangements for this year's BOC meeting. Members of this District also worked to make the AIFRB Annual Symposium a great success.

Old Business

Ad-hoc Audit Committee (Cole)

The books were all in order and no problems were found.

With regard to the Institute's tax free investment strategy, the Audit Committee determined that this conservative approach to investing prevents the Institute from gaining an additional 2 to 3 percent income per year. They recommended that the Institute pursue a more aggressive investment strategy. Treasurer Rachlin indicated that his philosophy in dealing with investments and their expenditure was based on the Guideline for fiscal responsibility as set down by the 1986 BOC. He further stated that he is in total agreement with the audit Committee, in that the Institute could build its reserves more quickly if investing was done more aggressively. Treasurer Rachlin indicated that if this was the direction that the BOC wished to adopt he would support it fully. However, he could no longer assume the role of Treasurer for the Institute, since maintaining an active investment strategy would be too time consuming to be conducted on a volunteer basis, and would require the hiring of an accountant and tax consultant to deal with the necessary form filings.

Prior to the BOC meeting, Treasurer Rachlin, in correspondence with the President and the Audit Committee, indicated that since he has been doing this job for 12 years and that the Institute would most likely be adopting a more aggressive investment strategy it might be time to consider relocating the treasury at this time.

President Sakagawa accepted Joseph Rachlin's suggestion and had asked Allen Shimada to serve as Treasurer for the Institute. Allen Shimada agreed to serve.

At the BOC meeting, President Sakagawa, the Audit Committee, and the BOC commended Treasurer Rachlin on a job well done and expressed their satisfaction with his handling of the treasury over the past 12 years. Joseph Rachlin accepted their thanks and offered his full support to Allen Shimada to ensure that the transfer of the treasury occurs smoothly.

President Sakagawa indicated that the Institute needs to set up a capital management plan. Therefore, he set up an ad-hoc committee to investigate how to best manage the Institute's portfolio. Allen Shimada will chair this committee. Joseph Rachlin agreed to serve on it.

Procedures Manual (Warkentine for Anthony)

Secretary Warkentine received a working handwritten draft of the procedures manual from Past President Anthony. President Sakagawa offered his help with this project.

Web-Page

The BOC discussed the establishment of an AIFRB web-page. Currently the Institute is using a site maintained by the Southern California District. Director Hill suggested that AIFRB should establish its own site and have its own server. In discussing the web-page many points were brought up: 1) AIFRB's first priority should be to secure a domain name, 2) If a server is purchased it should be housed at the U. Washington, where the archives are, 3) What type of server should it be, 4) Who will assume the role of webmaster.

A **motion** to secure the domain name (AIFRB) for the web-site as soon as possible was **seconded** and unanimously **approved** by the BOC.

President Sakagawa agreed to look into the availability of AIFRB as a domain name and to secure it if it is available.

President Sakagawa established a computer technology committee, consisting of J. Nance, L. Cooper, and K. Myers, to look into types of servers, set-up and maintaining the web-page and any associated costs involved, and to propose ideas as to what would be posted on the page. Regarding these issues the committee will present their report to the President on or before 1 February 2000.

New Business

a. Shorten AIFRB to FRB

President Sakagawa stated that many people find the acronym AIFRB difficult. Therefore, he proposed that the BOC consider using a shorter acronym (e.g. FRB). In discussing this issue it was pointed out that in order to officially change the acronym the Institute would have to reincorporate. Also, FRB doesn't indicate any affiliation, such as an institution or society. After some discussion the BOC agreed that the official acronym AIFRB must remain but that in casual conversation people could use the truncated acronym. The web-site domain name (AIFRB) would remain unaltered. President Sakagawa asked the BOC and members to think about other acronyms for discussion at next year's BOC and that we might wish to post this as a discussion item in BRIEFS.

b. Financial Support for Districts – Dues Sharing

President Sakagawa presented a proposal to the BOC regarding dues sharing. The proposed action stated that for each new member recruited into a district the Treasurer would return $5.00 of their dues to that district and 50% of their dues, should the recruited member remain for the second year. Past President Hubbs indicated that giving back 50% for the second year is predicated on the fact that the member is in good standing. This should serve as an incentive for the districts to actively recruit new members. Production Editor Merriner stated that districts can request up to $250.00/year so in reality they are receiving financial support. However, this money must be requested after the expense incurred and receipts must be provided for reimbursement. This $250.00 can not be used as a supplement for attending the BOC meeting as it is earmarked for district activities. Production Editor Merriner suggested that the procedures document should have a section on "Guidelines to District Directors regarding the expenditure of the $250.00 district allotted funds."

Regarding the 50% rebate for second year retention of new members, Joseph Rachlin pointed out that in the case of Canadian members the treasury loses 50 percent of their dues as a result of bank charges, therefore none of their dues would be going to the treasury. Many BOC members raised the issue as to how dues sharing would apply to those members outside a district and how do you handle members that move from one district to another after their first year of membership. Thomas Lambert and Director Schmidt both stated that there is a need to recruit members and the idea of dues sharing should be addressed as soon as possible. A **motion** by Director Wing to table this item at this time to give the new Treasurer a chance to get familiar with the Institute's financial operations was **seconded**, but defeated. A **motion** by J. Rachlin to postpone action on this item until all potential problems are worked out and that for this year each district be authorized to request an additional $50.00 for recruitment purposes only (receipts must be provided to the Treasurer) was **seconded** and **approved** by the BOC.

Joseph Rachlin suggested that a sub-committee should consist of the Membership Chair and the Treasurer.

c. Spin-off a Subsidiary Charitable Unit

President Sakagawa proposed that the Institute should consider setting up a charitable unit. In doing so the Institute might be able to change its current tax exempt status. Treasurer Shimada was charged with the task of looking into this. In addition, both Joseph Rachlin and Pete Cole stated that the Institute will need to hire an accountant to file tax forms, and consult with a tax attorney to look at the legalities associated with changing the language of our articles of incorporation so that we can change our current 501C6 status to a 501C3 status.

A **motion** by Director Wing to authorize the Treasurer to seek, if necessary, legal advice and that the cost expenditure (not to exceed $5,000.00) be done in consultation with the President; and should the cost estimate be over the $5,000.00 allocated by the BOC that the allocation of additional funds be approved by majority vote (which can be done electronically) of the BOC, was **seconded** and unanimously **approved** by the BOC.

d. AIFRB meeting in 2002

President Sakagawa proposed that AIFRB should look at having its own meeting for the AIFRB membership. He proposed the year 2002 as the target year to do this. Past President Hubbs stated that it would be better to have either 2001 or 2006 as the special meeting year as these years represent AIFRB's 45th and 50th anniversaries respectively. The meeting would consist of a three-day program and would be held in a place that would attract the greatest number of members. Since this will take time to organize the BOC agreed that we should plan to do this in the year **2006**, the Institute's 50th anniversary. Past President Helle suggested that we prepare a written history of AIFRB, which would consist of two parts: the first highlighting AIFRB activities during its first 25 years and the second highlighting those for AIFRB's second 25 years. President Sakagawa stated that this document should be prepared as a stand-alone document regardless of the meeting's activity. A committee consisting of Bernie Skud and Pete Cole was established to work on this.

The BOC agreed that AIFRB should vigorously pursue the idea of having an independent meeting to celebrate the Institute's 50th anniversary. President Sakagawa set up an exploratory committee to look into such issues as: meeting with another group, have the meeting totally independent from others, hold it at a campus, *etc.* In discussing these issues the BOC agreed that we need to have the meeting at a location that will insure strong AIFRB participation. The consensus of the BOC was that such a site could be the University of Washington. The **exploratory committee for meeting 2006**, consisting of J. Merriner, J. Rachlin, B. Miller, and T. Schmidt, was established by President Sakagawa. The Chair of this committee will be solicited by B. Miller from the Seattle membership.

With regard to the 2002 meeting, Director Nance stated that there will be a Conservation Conference. He will look into the possibility of holding our meeting with them.

e. Cost Control Allowance for BOC Meeting

The issue of cost coverage for BOC members to attend the annual Board meeting was raised for discussion. Currently AIFRB covers BOC members' transportation and hotel expenses for the BOC meeting period at a rate of $550.00. Both Joseph Rachlin and Pete Cole stated that increasing this amount may project to our membership that the primary function of AIFRB is to support its Board members to attend the annual meeting, a perception we would not want to project. Most BOC members agreed that, for most meeting locations, $550.00 is a sufficient reimbursement amount.

f. Establishing a Central California District

Director Moore suggested that the BOC consider the establishment of a Central California District. Director Wing suggested that Director Moore explore this to see if there is a nucleus of members interested. Perhaps the Northern California District could hold a meeting in Monterey and present it to the membership. If there is an interest then a petition for establishing this District should be prepared for presentation at the next BOC meeting.

g. Changing the Certificate Design for Fellows

The BOC discussed the possibility of having the AIFRB certificate for Fellows designed differently than for other ranks within AIFRB. The Membership Chair will explore this issue.

Award Presentation

President Sakagawa presented the 1998 AIFRB Distinguished Service Award plaque to Production Editor John V. Merriner.

Authorization of the Treasurer

A ***motion*** by District Director Nance to authorize the new Treasurer, Allen Shimada, to conduct business for the forthcoming fiscal year 1999-2000 (from the AIFRB Annual Meeting in 1999 to the AIFRB Annual Meeting in 2000), and in the interim for the current Treasurer, Joseph Rachlin, to conduct business until the transactions of this meeting are

completely turned over to the new Treasurer, was **seconded** and unanimously **approved** by the BOC.

Appointments

a. Nominations Committee for President-elect

President Sakagawa appointed J. Helle (Chair), C. Hubbs, and T. Nance to this committee.

b. Regional Directors

In accordance with the AIFRB bylaws (Article III, Sec. 6, Pg. 9, Regional Directors):

a) Steve Davis – Alaska & Western Canada
b) Bruce Miller – NW States
c) Kevin Hill – SW States and Mexico
d) Dora Passino-Reader – Central States & Middle Canada
e) Jack Pearce – NE States and East Canada
f) James Nance – SE States and East Mexico

a. District Director and others

In accordance with the AIFRB bylaws (Article III, Sec. 4, Pg. 8):

a) Secretary – Barbara Warkentine
b) Treasurer – Allen Shimada
c) Chair Membership Committee – Thomas Lambert
d) *Briefs* Editor – Gene Huntsman
e) Production Editor – John Merriner
f) Chair 1998 W.F. Thompson Award Committee – Jack Pearce

In addition to the above appointments President Sakagawa made the following committee appointments:

a) AIFRB meeting (2000): Dora Passino-Reader
b) Associate Research Award: Colleen Calwell, Freida Taub, Jerald Ault
c) Web-page: James Nance
d) AIFRB meeting (2002): James Nance
e) Outstanding Achievement Award: Jack Helle (Chair), Dora Passino-Reader, John Palmisano
f) Distinguished Service Award: Pete Cole (Chair), Clark Hubbs, Jack Helle
g) Archives: Kate Myers

1999 AIFRB Reception (Dixon)

Director Dixon made the arrangements for this years AIFRB reception. This years reception consisted of hors d' ouvres and a cash bar. It took place on the 28th of August from 6:00 p.m. to 7:30 p.m., and cost the Institute $749.211.

2000 AIFRB Symposium

a. Place and time

The 2000 meeting of the AIFRB Board of Control will be in St. Louis, Missouri at the Adam's Mark Hotel on August 19-20. Director Passino-Reader will work with AFS local arrangements Chair, Ronald Dent (rdent@fisheries.org) to arrange for our meeting needs and display site. Also helping with arrangements will be David Phillips. Director Passino-Reader will arrange for our annual social as well.

John Merriner (Left), AIFRB Production Editor, accepts plaque signifying the AIFRB Distinguished Service Award for 1998 from President Sakagawa during 1999 Board of Control Meeting (See Briefs, November – December 1998).

b. Symposium and display

The BOC discussed the topic for the 2000 AIFRB symposium. All agreed that the topic should be "Invasive aquatic species". Director Passino-Reader will see to it that the symposium is printed in the AFS program. Production Editor Merriner will have the display updated for display at this meeting.

Adjournment

President Sakagawa adjourned the meeting at 1500 on Sunday 29 August 1999.

P.S. A cost of $243.20 for beverage service to the BOC was incurred.

Midway Wahoo Takes 1,707-Mile Swim

A wahoo tagged and released in August 1998 by Midway Sport Fishing's manager, Captain Bill Boagey, was recaptured 1,707 miles from Midway six months later. The National Marine Fisheries Service reports it is the greatest distance ever recorded for a tagged and released wahoo. The fish was recaptured by a Korean longliner almost due south of Midway in July, 198 days after Boagey released it.

— From, International Angler 61 (5), September-October 1999

IGFA Opinion:

NMFS' Latest Rules For Fishery Management Unfair to Recreationals

Last May, the National Marine Fisheries Service (NMFS) published a final rule to implement the Fishery Management Plan for Highly Migratory Species (HMS), and Amendment One to the plan.

The final rule addressed new requirements of the Magnuson-Stevens Fishery Conservation and Management Act and new recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT).

The final rule effective July 1, 1999 also consolidated regulations for HMS conservation and management into one part of the Code of Federal Regulations.

Much has been written in recent years about the management of highly migratory species which include, among others, blue and white marlin, sailfish, swordfish and bluefin tuna. Most of this writing has been of a critical nature, including the opinions voiced by IGFA (International Game Fishing Association).

The influence of commercial fishing interests is plain to see in the way a highly migratory species is managed. By averaging together severely depleted areas with not-so-depleted areas, you end up with a better overall stock assessment and, therefore, less severe management restrictions. This is to the commercial fisherman's short-term advantage but to everyone's long-term loss.

Conservation and recreational fishing interests need to insist that separate stock assessments be generated for eastern and western Atlantic stocks of blue and white marlin, sailfish and swordfish just as there are for bluefin tuna.

Following is a summary of the new management regulations with IGFA's comments at the end of each section:

BILLFISH

- Blue Marlin, recreational size limit, 99" lower jaw fork length.
- White marlin, 66" lower jaw fork length.
- Sailfish, 63" lower jaw fork length
- Spearfish, retention prohibited.
- No sale by recreational or commercial.
- No recreational possession limit but catch and release encouraged.
- Billfish tournament operators need to register with NMFS.
- U.S. citizens fishing anywhere in the Atlantic must comply with blue and white marlin size limits even if fishing on a foreign vessel in compliance with all foreign rules.
- Charter/headboats that target billfish must maintain a logbook if selected by NMFS.

COMMENT: *The billfish plan does not restrict longline bycatch which accounts for 85% of blue marlin mortality, 95% of white marlin mortality, and 98% of sailfish mortality in U.S. waters.*

The fact that U.S. size limits apply to all U.S. citizens fishing anywhere in the Atlantic may affect world record seekers targeting blue or white marlin on light line.

SWORDFISH

- Recreational anglers are prohibited from catching and landing swordfish in the Atlantic south of 5-degrees north latitude if fishing from a U.S. vessel. However, U.S. longline vessels can take swordfish from the South Atlantic.
- No recreational permit needed except charter/headboats who are required to have an annual HMS permit.
- No recreational bag limits in North Atlantic, but there is a minimum size limit of 29" (or about 33 lb. dressed weight). The 29" size limit is measured with head and tail removed.
- Tournament operators must register their event with NMFS at least four (4) weeks prior to tournament.

COMMENT: *There is a token commercial longline closed area for one month (June) which is 60 miles south to north and 360 miles east/west off the mid-Atlantic and New England coast. However, the overly generous commercial quota and tiny size limit will do little to rebuild swordfish stocks. Even during the closed season, longline vessels can keep 15 swordfish per trip. Dead discards of undersized swordfish which number in the tens of thousands are not counted against commercial quotas.*

SHARKS

- The following species are prohibited from landing by both recreational and commercial fishermen in the Atlantic: angel, basking, bigeye sand tiger, bigeye sixgill, bigeye thresher, bignose, Caribbean reef, Caribbean sharpnose, dusky, galapagos, longfin mako, narrowtooth, night, sevengill, sixgill, sandtiger, smalltail, whale and white.
- Recreational anglers may keep one (1) shark per vessel per trip of the following species: sandbar, silky, tiger, blacktip, spinner, lemon, bull, nurse, smooth hammerhead, great hammerhead, shortfin mako, blue, thresher, porbeagle, oceanic white tip, blacknose, finetooth and bonnethead.
- Recreational minimum size: 4.5 feet (straight line from nose to fork of tail). Exception: Atlantic sharpnose sharks are exempt from the 4.5 ft. minimum length and anglers may keep one (1) per person per trip.
- Allowable recreational gear includes rod and reel, handline and bandit gear.
- No recreational permit needed except charter/headboats who need an annual HMS permit.
- Tournament operators must notify NMFS at least four (4) weeks prior to the event.

COMMENT: *NMFS is still trying to manage the Atlantic shark fishery for the benefit of commercial fishermen in spite of the fact that no large-scale commercial fishery for sharks has ever been sustainable and the recreational fishery is many magnitudes more valuable to the U.S. economy. The latest news is that a judge has overturned most of the commercial restrictions on sharks due to a suit filed by commercial fishing interests. All the recreational fishery restrictions still stand.*

TUNAS

- Recreational vessel owners need a permit to land bluefin, yellowfin, albacore, skipjack and bigeye in the Atlantic.
- To obtain a permit, call 1-888-USA-TUNA or go to www.usatuna.com.
- Allowable recreational gear includes rod and reel and handline.
- Bluefin tuna recreational landings are subject to quotas for various size classes (weights approximate) as follows: Young school, 27", 14 lb.; School, 27", 14 to 66 lb.; Large school, 47" to 59", 66 to 135 lb.; Small medium, 59" to 73", 135 to 235 lb.; Large medium, 73" to 81", 235 to 310 lb.; Giant, 81" plus, 310 lb.
- Length is measured over curve of body from tip of nose to fork of tail.
- Bluefin quotas may vary by size throughout the season.
- No quotas or bag limit for other than bluefin except there is a recreational bag limit for yellowfin of three (3) per person per day.
- Minimum recreational size limit is 27" for bluefin, yellowfin and bigeye. No minimum size for albacore or skipjack.
- Tournament operators must register their event four (4) weeks in advance with NMFS.

COMMENT: *Bluefin quotas are still too generous to allow rebuilding. Recreational anglers have a three (3) fish bag limit on yellowfin while commercials have no quota whatsoever. Recreational interests have sued NMFS over this inequity.*

—From: International Angler, September-October 1999

MEETINGS OF INTEREST

LEWIS AND CLARK BICENTENNIAL CONFERENCE

The Missouri River "Voyage of Recovery" Conference will be held on November 8 and 9, 1999 in historic Saint Charles, Missouri. The conference is being funded by Anheuser-Busch and Budweiser and the Danforth Foundation.

National experts on greenways and trails, historic preservation, heritage tourism, and wildlife habitat restoration will present case studies and provide other information to community leaders, local officials, and representatives of state and local agencies from Missouri River communities.

Stephen E. Ambrose, historian and author of Undaunted Courage, will be the keynote speaker.

Although this conference will conclude prior to mailing of Briefs, I thought it would be of interest to members. Editor~

FIFTH MARINE AND ESTUARINE SHALLOW WATER SCIENCE AND MANAGEMENT CONFERENCE MARCH 13-17, 2000 ATLANTIC CITY, NEW JERSEY

Concern over increasing competition for shallow water uses led to the first Marine and Estuarine Shallow Water Conference in March 1994 as a way to promote greater understanding, conservation, and management of shallow water habitats.

The primary objective of this fifth conference is to explore the importance of the shallow water zone as critical fish habitat and evaluate the impacts of dredging and dredged material disposal in shallow waters.

Questions should be directed to: Ralph Spagnolo, (215) 814-2718, or Ed Ambrogio, (215) 814-2758 (or via e-mail).
ambrogio.edward@epa.gov or spagnolo.ralph@epa.gov

ECOSUMMIT 2000 INTEGRATING THE SCIENCES HALIFAX, NOVA SCOTIA 18-22 JUNE 2000

Understanding and solving environmental problems in the 21st Century

The aim of the second EcoSummit is to encourage integration of both the natural and social sciences with the policy and decision-making community, for the purpose of developing a deeper understanding of complex problems. The structure of this EcoSummit is unique in the sense that it is a Summit rather than a workshop or conference. All delegates will be able to participate actively during the EcoSummit through the Working Groups, in addition to the contributed poster sessions.

Post, fax, or e-mail to:
Amy Richardson
EcoSummit 2000 Secretariat, Elsevier Science
The Boulevard, Langford Lane
Kidlington, Oxford OX5 1GB, UK
Tel: +44 (0) 1865 843643 • Fax: +44 (0) 1865 843958
E-mail: a.richardson@elsevier.co.uk
Or in North America to:
EcoSummit 2000 Secretariat
P.O. Box 1656, New York, N.Y. 10116-1656, USA
Or use the website:
http://www.elsevier.com/locate/ecosummit

INTERNATIONAL CONGRESS ON THE BIOLOGY OF FISH JULY 23-26, 2000 ABERDEEN, SCOTLAND

Information on this meeting is available at the following website:
http://www.fishbiologycongress.org
If you have suggestions, or would like to be involved in organizing a session, please contact:
Don D. MacKinlay
Habitat & Enhancement Branch, Fisheries & Oceans Canada
555 West Hastings St., Vancouver BC V6B 5G3 CANADA
Phone: 604-666-3520 • Fax: 604-666-6894
E-Mail: MACKINLAYD@PAC.DFO-MPO.GC.CA

YEAR 2000 ESA ANNUAL MEETING, SNOWBIRD, UTAH, 6-10 AUGUST CALL FOR WORKSHOPS AND DISCUSSIONS

Workshops and discussions require submission of a proposal form by **15 January 2000** to the program Chair. • Info@soilfoodweb.com

INTERNATIONAL CONFERENCE ON RIPARIAN ECOLOGY AND MANAGEMENT IN MULTI-LAND USE WATERSHEDS

August 27-31, 2000 ~ Portland, Oregon
Double Tree Portland / Lloyd Center Hotel

Call for Abstracts and Announcement
(DUE DECEMBER 6, 1999)
CONTACT:
Scope and content of the technical program:
Jim Wigington, Chair, Program Planning Committee
U.S. EPA
200 SW 35th St., Corvallis, OR. 97333
(541) 754-4341 / Fax: (541) 754-4716 /
E-Mail: pjw@mail.cor.epa.gov
Info. Can be obtained at: http://www.awra.org/meetings/Portland/Portland.html

THIRD WORLD FISHERIES CONGRESS OCTOBER 31-NOVEMBER 3, 2000

The International Convention Center in Beijing, China

Attendees will explore the theme, "Feeding the World with Fish in the Next Millennium: The Balance between Production and Environment." The event is cosponsored by the American Fisheries Society, Asian Fisheries Society, World Agriculture Society and Austrian Society for Fish Biology.

Potential presenters are invited to visit the meeting web site (www.fisheries.moa.gov.cn) for details about abstract and paper submissions.

For more information contact:
The American Fisheries Society at
301/897-8616, ext. 212, or
The China Society of Fisheries, Bldg. 22, Maizidian Street,
Chaoyang District 100026, Beijing, P.R. China;
cnscfish@public.bta.net.cn.

Recent Losses

H. Richard Carlson (Member 1974)
July 29, 1940 – July 21, 1999

Dick Carlson died July 21 from massive injuries suffered when an automobile struck him near his home in Auke Bay, Alaska. He worked for the National Marine Fisheries Service, Alaska Fisheries Science Center, Auke Bay Laboratory, Juneau, Alaska.

He was born July 20, 1940 in Elgin, Illinois to Harry Clarence and Agnes Tenyke Carlson. He received his B.S. in fisheries from Humboldt State University (1960), M.S. Degree in fisheries from University of Connecticut (1963), and Ph.D. in fisheries from Oregon State University (1984). He was commissioned by the U.S. Coast Guard in 1963 and served in search and rescue operation units on the Gulf Coast until 1968. He was honorably discharged in 1975.

Dick began his fishery research career in 1960 as a summer temporary for the Auke Bay Laboratory Southeast Alaska herring investigation and Bristol Bay sockeye salmon investigations. In 1968 he became a permanent employee of the Auke Bay Laboratory. Over the years he was a project and task leader for programs on herring, rockfish studies, groundfish assessment, trans-boundary river salmon and ocean carrying capacity. Dick was an avid professional and recreational scuba diver, making three or four dives per week. He logged 3,887 dives and was planning a trip to dive in northern New Guinea at the time of his death. His diving contributed to studies on the homing of rockfishes (1972), and eleven-year study of age-0 pollock appearance in Auke Bay, and a seventeen-year study on rose star growth and survival in Auke Bay (1999).

Dick belonged to AIFRB, to the Pacific Fishery Biologists, and was a life member of the American Fisheries Society. He was an advisor to graduate students in the School of Fisheries, University of Alaska. He participated in local organizations ranging from the Auke Bay Volunteer Fire Department to Sons of Norway in Juneau, Alaska and the conservation and historical societies of Elgin, Illinois. Friends and associates remember Dick for his hospitality, generosity, and humor. His wife, Shirley, son, Lloyd, and many cousins and second cousins in Wisconsin, Illinois, and California survive him.

Memorial donations may be made to "H. Richard Carlson Scholarship Fund" c/o OSU Foundation, P.O. Box 1438, Corvallis, Oregon 97339: or c/o Shirley Carlson, P.O. Box 210391, Auke Bay, Alaska 99821.

— Submitted by Bruce Wing

John S. Gottschalk—
former Fish & Wildlife director

John S. Gottschalk, who retired as director of the U.S. Fish and Wildlife Service in 1970 and was a longtime member of the Alliance for the Chesapeake Bay's Board of Directors, died of cancer Aug. 13, 1999 at his home in Arlington, VA. He was 86.

During the six years he served as USF & WS director, he oversaw the passage of the first federal endangered species act and witnessed a comeback by the nearly endangered whooping crane. The National Wildlife Refuge System added more than 500,000 acres of habitat during his tenure, and urban wildlife programs were started. DDT was also banned as a pesticide during that time.

Gottschalk served for 10 years as the president and chairman of the Alliance for the Chesapeake Bay's Board of Directors, and remained a member of the board until his death. He was also active with many conservation groups, having served as president of the American Fisheries Society and the Washington Biologists Field Club. He had also served on the boards of the National Wildlife Federation and the Audubon Naturalist Society.

Before leaving in 1970, he worked 23 years in the Department of Interior, and received the department's Distinguished Service Award, as well as awards from such groups as the Wildlife Society, the International Association of Fish and Wildlife Agencies and the National Resources Council of America.

After leaving the Fish and Wildlife Service, Gottschalk worked from 1970 to 1973 as assistant to the director of the National Marine Fisheries Service. Until retiring in 1986, he served as executive vice president and then counsel of the International Association of Fish and Wildlife Agencies.

A native of Indiana, Gottschalk joined the Fish and Wildlife Service in 1945, serving in Montana before coming to Washington in 1951. He later became the first director of the new sport fisheries division. In 1959, he went to Boston as director of the 11-state Northeast region of the service. He became service director in 1964.

Gottschalk was an honorary life member of the American Fisheries Society, the Izaak Walton League of America and a member of the Cosmos Club.

A memorial service was held Sept. 23 at the Cosmos Club in the District of Columbia.

Survivors include his wife of 62 years, Edith, of Arlington; a son, Thomas, of the District of Columbia; a daughter, Sara Nell Davis, of Sebeck, WA.; five grandchildren; and two great-grandchildren.

He named the Alliance for the Chesapeake Bay as one of the charities to whom he would like memorial contributions made. Any contributions received in his memory will be acknowledged to his wife, Edith.

— From, Bay Journal (September 1999)

Editor's Note —
Although, curiously, John was not an AIFRB member, he was known to much of our membership and a friend to many of us. John fought a lonely and courageous battle in establishing a presence for marine recreational fishery interests in the newly-created National Marine Fisheries Service and, earlier, was largely responsible for marine laboratories dedicated to recreation-oriented fisheries at Sandy Hook, N.J., Panama City, FL., Port Aransas, TX., and Tiburon, CA.

COUNCIL STAYS FIRM ON SARGASSUM TAKE BAN WHILE NMFS WAVERS

The South Atlantic Fish Management Council is standing firm on its decision to phase out Sargassum harvest, despite criticism from the National Marine Fisheries Service on a plan for managing the floating seaweed off the Atlantic coast.

The council revisited its sargassum plan during the September council meeting, and directed its staff to stand firm. EDF (Environmental Defense Fund), CMC (Center for Marine Conservation), Audubon, ReefKeeper and others are urging conservation advocates to support the council and call for adoption of the plan as it stands.

NMFS finally announced availability of the plan in the Aug. 26 Federal Register, eight months after the South Atlantic Council okayed the document and sent it to the agency for review.

First the agency informed the council it was going to reject the plan outright, but then wrote to clarify that NMFS had not yet rejected the plan, noting that the public comment period was still open. NMFS also criticized the plan provisions.

Sargassum seaweed is a brown algae that circulates near the surface of warm waters from the Sargasso Sea throughout the western Atlantic hundreds of miles offshore. The plant is used as habitat by 100 species of fish, more than 200 species of invertebrates, by juvenile sea turtles and migratory seabirds.

The council designated sargassum as essential fish habitat, and described the offshore mats as a Habitat Area of Particular Concern.

Sargassum is also used by humans. One company, Aqua 10 Laboratories of Beaufort, N.C., harvests about 20,000 pounds of the seaweed annually to produce agricultural products like fertilizer and animal dietary supplements. Since 1976, they have collected about a half a million pounds of sargassum. NMFS estimates the current amount of sargassum in the Atlantic may be roughly 9 to 24 million pounds.

In December the council approved a two-year phase out of sargassum collection to protect its function as habitat.

— From, Fish Rapper, October 1999

Red Porgy Collapses:

Emergency Rule to Close Red Porgy Fishery in South Atlantic Effective September 8, 1999

An emergency rule to close the red porgy fishery in the South Atlantic Region was published in the Federal Register on September 3, 1999, announced Dr. William T. Hogarth, Regional Administrator, Southeast Region. The effective date for closure of the fishery is September 8, 1999.

In 1992, an assessment revealed that red porgy were overfished with a spawning potential ratio (SPR) of 13 percent. In 1998, an updated trends analysis indicated an SPR between 14 and 19 percent. A 1999 assessment indicated an SPR of 24 percent. However, the 1999 assessment noted that the SPR estimate is useful to describe the fishing mortality rate, but the SPR estimate is not a valid proxy for the maximum sustainable yield (MSY) in that fishery because it does not provide information on the actual level of spawning biomass that sustains the fishery.

The 1999 assessment revealed that the number of age-1 fish entering the red porgy fishery has declined over 99 percent from 1973 to 1997 (7.6 million to 12,000 age-1 fish) and total spawning biomass has declined over 97 percent (11,700 to 323 mt.). The Minimum Stock Size Threshold necessary to achieve an SPR of 30 percent (MSY) is 2,854 mt.; the comparable figure for Optimum Yield is 3,805 mt. The Maximum Fishing Mortality Threshold (MFMT) is 0.45; whereas, the current fishing mortality rate is 0.64, which is 42 percent over the MFMT. In addition, commercial and recreational landings have declined substantially, and the size of red porgy at maturity and size at transition from females to males have occurred at progressively smaller sizes.

The sex-switching red porgy was once far and away the most important species to reef fish catches off the Carolinas. Despite repeated cautions that protogynous species might be more prone to overfishing than are gonochorists, the South Atlantic Council was unable to produce rules preventing the stock collapse. Editor~

THIRD OF PA FISH SPECIES IN TROUBLE

Pennsylvania now considers a third of all the fish native to the Commonwealth to be threatened or endangered within the state's borders.

The Pennsylvania Fish and Boat Commission, after months of delay, this summer adopted a controversial proposal to update, and expand, the state's rare fish list.

The expansion of the list from 46 to 54 had been hotly opposed by several mining, oil and other interests who feared the change would lead to more regulation.

Scientists said the changed listing does not necessarily mean that water quality has worsened in the state, but reflects improved information.

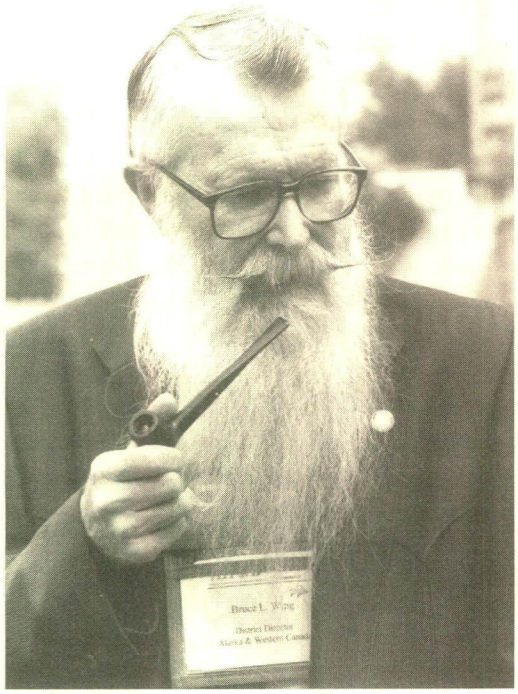
The new list resulted from the largest-ever survey completed by scientists at the Pennsylvania State University, who assembled more than 11,000 records of fish species and locations throughout the state.

The action tripled the number considered endangered, from nine to 28. It also lists 15 as threatened, and 11 as candidates for future listing.

— From, Bay Journal, October 1999

Flair or Flare?

Magnificent facial pelage of SE Alaska District Director, Bruce Wing, undergoing trial of new flame-retardant treatment during Board of Control meeting, August 1999.



— Photo by, Jack Helle

Bishops Speak Out on Behalf of Columbia River

Roman Catholic bishops of the US Northwest and British Columbia have come together to "pledge to help the Columbia River by eliminating the use of fertilizers and pesticides on the lawns of Catholic schools and churches while reducing the use of gold in church adornments." The bishops consider the well-being of salmon a sign of the ecological health of the river, as well as an indication of the "spiritual vitality" of the watershed. A pastoral letter on the Columbia River watershed will be completed in 2000.

— From, American Rivers, Summer 1999

Jump-Starting a Reef's Restoration

— Lisa Symons

A 4,000-year-old reef in the Florida Keys that was crushed in a vessel grounding in 1994 was given a head start to recovery through a state-of-the-art coral reef restoration, completed August 22.

During the restoration, limestone boulders ranging from three to five tons were bound together with a combination of composite fiberglass and an inert underwater concrete mix. Divers applied layers of the material until each site was brought up to grade with the surrounding spur.

The divers also placed smaller pieces of coral rubble and limestone from the initial grounding on top, minimizing the concrete surface.

NOAA's Florida Keys National Marine Sanctuary Resource manager Harold Hudson transplanted several coral colonies directly onto the repair site.

The *R/V Columbus Iselin*, a 155-foot research vessel owned by the University of Miami, went aground in Looe Key National Marine Sanctuary, now part of the Florida Keys National Marine Sanctuary, just before midnight on August 10, 1994. The vessel remained on the reef for 38 hours, causing extensive damage to four spurs of the reef and creating significant debris in the surrounding area.

The University of Miami settled with NOAA for $3.76 million in natural resource damage claims for the grounding, including a $200,000 civil penalty.

— From, NOAA Report/September 1999

District Directors

Alaska, Northern
Steven K. Davis
17508 Toakoana Way
Eagle River, AK 99577
steve.davis@noaa.gov

Alaska, Southeast
Bruce Wing
P.O. Box 210265
Auke Bay, AK 99821-0265
bruce.wing@noaa.gov

Atlantic Maritime
Vacant

Arizona - New Mexico
G. Morris Southward
College of Agri & Home
Eco. Statistics & Res. Inst.
New Mexico State University
Box 3130
Las Cruces, New Mexico 88003
southward@nmsu.edu

California, Northern
Thomas Moore
California Dept. of Fish and Game
P.O. Box 1560
Bodega Bay, CA 94923
mooretom@msn.com

California, Southern
Kevin Hill
California Dept. Fish and Game
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, CA 92038
khill@ucsd.edu

Capital
VACANT

Carolina
Robert L. Dixon
NMFS
101 Pivers Island Road
Beaufort, NC 28516

Florida
Thomas W. Schmidt
USDI Nat'l. Park Service
Everglades Nat'l. Pk., S. Fla. Res. Ctr.
P.O. Box 279
Homestead, FLA 33030
tom_schmidt@nps.gov

Great Lakes, South Central
Dora R. Passino-Reader
National Fish. Center
1451 Green Road
Ann Arbor, MI 48105-2897
dora_reader@usgs.gov

Gulf of Mexico, Northeast
Vacant

Keystone
Barbara E. Warkentine
1329 Balcom Avenue
Bronx, NY 10461
bewlc@cunyvm.cuny.edu

New England
John B. Pearce
Northeast Fisheries Center
166 Water Street
Woods Hole, MA 02543-1097
jack.pearce@noaa.gov

Oregon-SW Washington
VACANT

Texas
James Nance
Galveston Laboratory
SE Fisheries Science Center NMFS
4700 Avenue, U
Galveston, TX 77551
James.M.Nance@noaa.gov

Washington, NW
Robert (Bud) Burgner
University of Washington
Fisheries Research Institute
Box 357980
Seattle, WA 98195-7980

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, 1329 Balcom Ave., Bronx, NY 10461, bewlc@cunyvm.cuny.edu -Secretary; Allen M. Shimada, NMFS Office of Science and Technology, 1315 East Highway, Silver Spring, MD 20910, allen.shimada@noaa.gov -Treasurer. ISSN-8755-0075

American Institute of Fishery Research Biologists
c/o Allen M. Shimada
NMFS Office of Science and Technology
1315 East Highway
Silver Spring, MD 20910
Address Correction Requested

FIRST CLASS
U.S. Postage
PAID
Permit No. 92
Morehead City, NC 28557

FIRST CLASS

*************AUTO**MIXED AADC 285
Dr. William H. Bayliff 3
IATTC-SCRIPPS INSTITUTE OF OCEANOGRAPHY
8604 LA JOLLA SHORES DR
LA JOLLA CA 92037-1508

American Institute of Fishery Research Biologists

. . . BRIEFS . . .

VOL. 28, NO 6 NOVEMBER- DECEMBER, 1999

Fellow Iverson Succumbs

Edwin S. Iverson (Member 1958, Fellow 1971, Emeritus 1987), born December 4, 1922 in Ferndale, Michigan, died December 5, 1999. As a youth, he delivered the Detroit free Press. From 1942 to 1945 he served in the United States Army Air Corps as a B-17 bombardier, flying missions over France and Germany. After World War II he earned a BS and MS at the University of Washington and a PhD in Biological Oceanography from Texas A & M University. He specialized in fishery biology, management of recreational and commercial fish and shellfish, aquaculture, parasites, and diseases of marine organisms.

While working with the Fisheries Research Institute at the University of Washington, he studied spawning populations and migration routes of Alaskan salmon. Later, with the U.S. Fish and Wildlife Service's Pacific Oceanic Fisheries Investigations at Hawaii, he participated in cruises around Hawaii and the central Equatorial Pacific, investigating distribution, abundance, and biology of tunas and related species. In 1957, he came to Miami as Professor at the University of Miami's Institute of Marine Sciences where, for 37 years, he led studies on shrimp, pompano, seatrout, and queen conch fisheries, and investigated aquaculture operations in Florida, the Bahamas, Caribbean Islands, South America and Scandinavia. Professor Iverson established and developed an aquaculture program at the University of Miami and taught courses in marine fish parasites, fisheries, and aquaculture.

In 1968, he authored Farming the Edge of the Sea, the first book on marine fish farming, later translated into Spanish. He was senior author of two books, Aquaculture Sourcebook: A Guide to North American Species (1992), and Shrimp Capture and Culture Fisheries of the United States (1993). His book Living Marine Resources: Their Utilization and Management was published in 1995. In addition, he published 90 scientific and popular articles. From 1965-1968, he was Assistant Chairman, then Chairman, of the Division of Graduate Studies at the marine school. He was Director, Florida Chapter American Institute of Fishery Research Biologists, 1970-1973. He served on several editorial boards.

He is survived by his wife, Jane, and two sons, Edwin S., Jr., of Durham, N.C. and Eric J. (Marit) of Oslo, Norway, one grandson, niece, Nora Iverson-Talbot (John) and nephew, Thomas Iverson (Sheila) of Royal Oak, Michigan.

A memorial service was held 2 P.M. Friday, December 10 in the Commons at University of Miami's Rosensteil School of Marine and Atmospheric Sciences. The family has requested that, in lieu of flowers, donations be made to a favorite charity.

— Submitted by, Edwin S. Iverson, Jr.

Schuck Offers Photos

Dear Editor,

If the Institute maintains any type of Archives, we would be glad to donate some rare photographs of East Coast Fishery researchers of the 30's and 40's.

I say "we" rather than "I", as Erna Milch, now 91 years of age, has consigned the photos to me on my promise to try to find a permanent resting place for them before she or I pass on.

One photo is of the Staff of the North Atlantic Fishery Investigations — at Harvard Biological Laboratory of the U.S. Bureau of Fisheries. This Staff about 1936 consisted of Oscar Sette, Bill Neville, Bob Nesbit, John Webster, Bill Herrington; Biological Assistant, Mildred Moses and Secretary, Erna Milch. Also seen is Elmer Higgens, Chief Div. Of Scientific Inquiry, up from Washington, D.C. for a supervisory visit.

Other photos identify the Staff in its wartime location in Harvard Square. The researchers shown include Alfred Perlmutter, Head of Redfish Inv., Leslie Scattergood, Head of Lobster Inv., Louis Stringer, Salmon, Inv., Wm. Royce, Head of Flounder Inv., Ray Buller, Assistant in Flounder Inv., Howard Schuck, Assistant in Haddock Inv., and Wm. Herrington, Head of Haddock Inv. and also Chief of all North Atlantic Fisheries Investigations; also Erna Milch, Administrative Assistant, Herrington's (and the North Atlantic Fisheries Investigation's) "right hand" from 1930 to 1950.

Mrs. Erna Milch-Gormley, and I, are willing to entrust these, and perhaps other documentaries of this era of Fisheries Research, to AIFRB for preservation if it wishes to act in such a role.

Sincerely,

Howard Schuck

Fellow 1973, Emeritus 1977

14000 N. Lobelia Way • Tucson, AZ. 85737-7142

***Editor's reply**: Photos and documents as offered by Howard are invaluable. Assuming that the National Archives are not the best place for the materials I would be glad to file them with my Briefs materials. Perhaps other members have an even better idea for conserving the photos.*

Sakagawa Appoints Capital Management Committee

President Sakagawa in December appointed a Capital Management Committee consisting of Pete Cole (Chair), Joe Rachlin, Bill Wilson and Al Shimada.

The charge of the Committee is flexible and will change with time. However, the purpose is basically to serve the Treasurer (Al Shimada) as a source for independent assurance on how well the treasury is doing. Tasks requiring early attention include review and revision of the Investment Guidelines, developing options for controlling cost of carrying delinquent members, and reviewing findings on establishing a subsidiary unit and options for managing that unit. Besides these tasks, the Treasurer will raise other financial matters for consideration from time to time.

Oregon Places Coho On Endangered List

Following a staff recommendation, the Oregon Fish and Wildlife Commission has listed wild coho salmon in the Sandy and Clackamas rivers to be covered under the state's Endangered Species Act. The two rivers are the only streams in the entire Columbia River basin that are still home to wild coho salmon stocks. Once, the coho were abundant in Upper Columbia and Snake tributaries, but most disappeared by the 1980s. Coho in Oregon's Grand Ronde River were extinct by 1986. Reports are that the National Marine Fisheries Service, which rejected a Chinook and coho salmon petition in 1990, may now place coho under federal protection.

— From, International Angler, November/December 1999

Meetings of Note

ESA AND BRITISH ECOLOGICAL SOCIETY TO MEET

Ecologists from around the world are invited to Orlando, Florida April 10-13, 2000 to attend a special meeting hosted by the ESA and the British Ecological Society. The meeting agenda will feature several symposia designed to explore many of the most engaging topics currently concerning ecologists. For more information (including instructions for registration and lodging) please visit the ESA website: http://esa.sdsc.edu.

— From, Newsource, October 1999

MARINE RECREATIONAL FISHERIES SYMPOSIUM

MANAGING MARINE RECREATIONAL FISHERIES IN THE 21ST CENTURY

The National Marine Fisheries Service and the Sea Grant College Program of the National Oceanic and Atmospheric Administration announce the convening of "Managing U.S. Marine Recreational Fisheries in the 21st Century," a national symposium for marine resource managers, scientists, researchers, educators and communicators, the recreational fishing organizations, and the angling public.

Plan to join your peers for the first major, national forum to focus on the myriad of issues that will shape the marine recreational fishing experience in the 21st century.

Location: San Diego, California. Dates: June 25-28, 2000.

Contact: Dallas Miner, 301/427-2015; Dallas.Miner@NOAA.gov.
Web Site: http://www.nmfs.gov/irf/recsym2000.html.
Marty Golden, Pacific Recreational Fisheries Coordinator
Office of Intergovernmental and Recreational Fisheries – Fx2
National Marine Fisheries Service • 501 W. Ocean Blvd., Suite 4200
Long Beach, California 90802-4213
(562) 980-4004 • FAX 980-4047 • Marty.Golden@NOAA.gov

AIFRB Sponsored Symposium

AQUATIC INVADERS: ENTRY, IMPACT, AND CONTROL

American Fisheries Society
130th Annual Meeting • St. Louis, Missouri
August 20-24,2000

CO-CHAIRS: DR. DORA PASSINO-READER, USGS AND AIFRB
MR. JOHN R. CASSANI, INTRODUCED FISH SECTION, AFS

Objectives: To present current research on freshwater and marine aquatic invaders, both animals and plants. To examine modes of entry of invaders to aquatic systems, analyze their impact on native and established species, develop strategies for control, and evaluate control measures implemented to date.

This one-day symposium will consist of twenty presentations highlighting a range of research in terms of geography, species, and stages of invasion.
For information contact:
Dora Passino-Reader — Tel. (734) 214-7229 • E-mail dora_reader@usgs.gov
John Cassani — Tel. (941) 694-5844 • E-mail jcassani@peganet.com

AUSTRALIA TO HOST WORLD CONFERENCE

The Amateur Fishermen's Association of the Northern Territory was selected to host a conference on world recreational fishing issues to be held in Darwin in the year 2002, exact dates to be determined later. The decision was approved by delegates at a world conference in Vancouver, Canada, entitled "Evaluating the Benefits of Recreational Fishing."

John Harrison, executive officer of AFANT, said, "There are many issues that are common throughout all recreational fisheries across the world – including stock concerns, habitat destruction, economic indicators, animal welfare threats, pollution, water extraction, fishing pressure, and conservation."

— From, International Angler, November/December 1999

SUCCESSFUL LAKE STURGEON EGG COLLECTION

Monitoring in the 1980's raised concerns about the status of the lake sturgeon (*Acipenser fulvescens*) population and habitat in the Saskatchewan River. This led to the eventual formation of the Saskatchewan River Sturgeon Management Board and fieldwork on habitat evaluation, population assessment, and co-management with local stakeholders.

In five years of capturing and tagging sturgeon, only one female with free-running eggs (implying immediate spawning) was observed. Holding of females in pens did not provide eggs, although ripe eggs were viewed through incisions in a few specimens.

In 1999, a number of agencies provided additional effort towards fish capture and egg collection at Bigstone Rapids near Cumberland House:

On May 31st, 1999 several sturgeon in pre-spawning condition were obtained. Using *in-vivo* techniques, sex and maturity was confirmed, and several eggs were incubated in progesterone to determine their hormonal readiness. Three females and two males were then injected with Ovaprim, with males receiving one-tenth the dosage of females. Injected fish were marked and held overnight in a floating pen.

On June 1, three batches of eggs (totaling 5.2 L) were collected, fertilized in the field, and flown to a provincial fish hatchery in Grand Rapids (Manitoba). Eggs stripped directly from two females yielded about 43,000 fry with an estimated hatching success of 90%. The third batch of eggs, which was collected from the holding tank (after voluntary release by one female), provided no fry due to heavy fungal growth. On June 16, about 33,000 fry were re-planted near Bigstone Rapids. Another 10,000 fry will be reared to fingerlings and released into the Saskatchewan River this fall.

Contacts: Rob Wallace
(306) 933-7100, e-mail:
rwallace@innovationplace.com or Llewelyn Matthews at SaskPower
(306) 566-2876, e-mail:
lmatthews@saskpower.sk.ca..

—From, Fishing Lines, September 1999

RESEARCH INVESTMENT ACT

In late July, the Senate approved S. 296, a bill authorizing an approximate doubling of the federal investment in civilian research and development over the next 11 years. The bill, sponsored by Senators Bill Frist (R-TN) and Jay Rockefeller (D-WV), calls for R&D funding in specified departments and agencies to grow by 2.5 percent above inflation each of the 11 years. It also contains requirements for performance measures and accountability. S. 296 passed the Senate by a unanimous consent agreement, which is usually used for noncontroversial bills. The bill has now been referred to the House Science Committee, where its fate remains uncertain. Chairman James Sensenbrenner (R-WI) has in the past expressed opposition to such a sweeping, long-term authorization bill.

— From, Newsource, October 1999

GOBY VICTORY

Tidewater gobies are endangered two-inch-long fish that live in the largely disappearing coastal lagoons and streams of California. Fishermen ignore them because they don't make good bait, and urbanites ignore them because they are not part of city life. Yet environmentalists have begun to turn a keen eye to the plight of this little fish, not just for the gobies' sake, but because of much wider losses to the California coast.

Coastal development projects have resulted in the loss of hundreds of acres of salt marsh, which are essential to the gobies' survival. The dredging of waterways and the widening of roads have greatly changed the salinity of the water. Moreover, industrial activity has flushed streams of toxic effluents into the lagoons where gobies breed. Historically, the tidewater goby was found in nearly 100 of California's coastal lagoons. Today, fewer than ten populations are considered to be viable in the future. In light of these developments, and the fact that California has already lost 90 percent of its wetlands, which include coastal lagoons, environmentalists have reason to be worried.

However, even though there are dangerously few large goby populations left, the Fish and Wildlife Service has recently proposed a rule that would take the goby off the endangered species list everywhere but Orange County and San Diego. This threat has only strengthened Natural Resources Defense Council (NRDC) attorney Andrew Wetzler's resolve to protect the fish. "Goby populations are extremely vulnerable," says Wetzler, who finds it hard to believe claims that they have rebounded. "We don't believe that there is any sound biological basis for taking gobies off the list right now. At a minimum, we have to allow time for scientific study. This is a species on the brink, and we can't afford to make a mistake."

To this end, NRDC recently went to court to argue that under the Endangered Species Act, lagoons and other coastal wetlands must be protected to save the gobies. It appears that the law agrees with this view: the court has now mandated that lands be set aside for the gobies' protection. "This is not just a victory for the tidewater goby, but for all of California's endangered coast," says NRDC senior attorney Joel Reynolds. (U.S. District Court, Central District of California)

— From, The Amicus Journal, Fall 1999

AS STRIPED BASS REBOUND, DECLINE IN MENHADEN REMAINS A CONCERN

Another bumper crop of young striped bass in Maryland's portion on the Chesapeake comes as menhaden – one of their main sources of food – appear to have had another poor year of reproduction in the state.

This is fueling continued speculation that the mushrooming number of young striped bass is outpacing one of their most important food supplies, at least in some areas of the Bay.

May striped bass, especially in parts of Maryland, have been unusually thin and covered with sores in recent years. Some believe the poor condition stems from a 79 percent drop in the Atlantic coast menhaden population since 1991.

Menhaden are one of the Bay's most important species, both ecologically and economically. They graze large amounts of algae out of the water as they grow, and eventually become a major food source for larger fish.

Menhaden also support the Bay's largest commercial fishery, measured by weight. Though not consumed by humans, the fish are used for oil, animal feed and other products.

Critics say the Atlantic States Marine Fisheries Commission, which represents all East Coast jurisdictions and is responsible for managing species that migrate across state lines, has been more interested in the commercial fishery than in the menhaden's ecological role.

"We're concerned that the population has been low for so long that it's going to take a while for it to recover," said Jim Price, president of the Chesapeake Bay Acid Rain Foundation and a leading critic of ASMFC's menhaden management. "By having this intense fishery in Virginia, it certainly reduces the number of menhaden at a time that we need all the forage we can get."

Price said Maryland's juvenile menhaden index for 1999 – though improved from last year – still remained far below the long-term average. The index, a predictor of the future menhaden stock, has been below average every year since 1991.

Scientists are divided whether the decline of menhaden jeopardizes striped bass; many note that bass are opportunistic feeders that will eat almost anything.

But a scientific peer review of the ASMFC's menhaden plan raised many management questions, and called for establishing quotas on the commercial menhaden catch and taking into consideration the ecological role menhaden play.

Although the peer review panel said it found no evidence that the overall menhaden population was at risk, it said fishing pressure could cause seasonal menhaden depletions in some areas, such as parts of the Chesapeake, where most of the Atlantic menhaden catch takes place.

The ASMFC this summer took comments on potential changes in the way it manages menhaden. It's expected to recommend changes and take them out for additional comment in the next year.

A focal point of many comments was the makeup of the ASMFC's Menhaden Management Board. ASMFC is divided in a number of boards, each of which develops management strategies for a particular species. The menhaden board is unique in that it is the only panel that includes representatives – half of the board's membership – from the fishing industry it regulates.

"There is one overriding comment that I've heard and that was 'change the board structure,'" said Joe Desfosse, the ASMFC fishery management plan coordinator who conducted public hearings along the coast during the summer and reviewed more than 1,000 written comments.

Concerns about the relationship of menhaden to striped bass and other predators has helped spur scientists to begin rethinking how they manage fish.

Concerns aren't limited to menhaden: There are questions about predator-prey relationships among many species, including whether predation on blue crabs has increased in recent years.

"The striped bass-menhaden issue is the easiest for the public to grasp, but it's a complex food web," said Derek Orner, a biologist with the National Oceanic and Atmospheric Administration's Chesapeake Bay Office.

In response, the Congressional intent in next year's budget is to allocate $500,000 for NOAA's Bay Office to begin a study of "multispecies" interactions within the Bay.

Also, the ASMFC is planning a workshop next year to examine multispecies issues throughout the coast. That could result in a series of research recommendations, and potentially even management actions.

Historically, fish stocks have been managed individually to support fisheries, without regard to their relationships with other species. Management plans therefore aim to identify the maximum allowable catch of a particular fish – in this case menhaden – without taking into account that growing stocks of striped bass, bluefish, weakfish and other predators may require more prey.

"The prey biomass needed to sustain those species needs to be higher than it was 15 years ago," said Phil Jones, of the Maryland Department of the Environment. "We need to keep an eye on this. Menhaden are obviously an important ecological species."

Still, he and others note that food web interactions are tremendously complex, and it's rare

when one species is totally dependent on another. While striped bass may prefer menhaden, they are also opportunistic feeders.

"Striped bass just eat too many different things," said Herb Austin, a biologist with the Virginia Institute of Marine Science. "Menhaden have been low before when striped bass were abundant in past times."

Austin said that during fishing tournaments this year, VIMS scientists who examined fish saw few striped bass with sores and none of the skinny fish that were observed in Virginia two years ago. Striped bass measuring 18-24 inches had body fat, which seemed to indicate they were in good health, he said.

In Maryland though, up to 15 percent of the fish caught have had lesions, which some believe could be an indicator of stress in the food chain, although it may not be related at all.

Confusing the issue further is that even as the overall number of menhaden remains small, the number of large fish – those which make up the potential "spawning stock" for the species – remains high. No one knows why their reproduction has been so low in recent years.

While no one can fully explain the problem with menhaden reproduction, Bill Goldsborough, a fisheries scientist with the Chesapeake Bay Foundation, said he believes there is growing agreement that fundamental changes are needed in the way the species is handled.

"We know that regardless what the recruitment level is, we need to manage this species more comprehensively – that is, for the wider range of benefits that it provides society – than we have in the past," Goldsborough said. "And I think in a couple of years, that is likely to change."

— From, Bay Journal, November 1999

RUN, RIVER, RUN

Dams to Come Down on a California Stream

A path-breaking deal that The Nature Conservancy helped close will remove five dams from an important Sacramento River tributary, enabling significant numbers of steelhead trout and four imperiled runs of Chinook salmon to reach their ancestral spawning grounds for the first time in decades.

A memorandum of understanding signed by the private utility Pacific Gas & Electric (P G & E) and an alliance of government agencies will open more than 40 miles of northern California's Battle Creek – the largest restoration of migratory fish habitat in the state's history. The voluntary agreement, which avoids years of regulatory hearings, calls for eliminating five small hydroelectric dams on Battle Creek, a crucial stream in the Conservancy's Lassen Foothills Project area. State-of-the-art fish ladders and diversion screens will be installed on the three dams to be left in place.

P G & E will forego $20 million in power revenue over the next 25 years. The $27 million cost of removing the dams and installing the ladders and screens will be paid by CALFED, a consortium of federal and state agencies tasked with restoring ecological health to the San Francisco Bay-Delta and the Central Valley watersheds that feed it.

The Conservancy is using a $3 million grant from the David and Lucile Packard Foundation to establish an adaptive management fund for future fine-tuning of the project in light of scientists' studies of how aquatic species respond to restored habitat.

—Fryar Calhoun

— From, Nature Conservancy, November/December 1999

Courts Order Action on Water in Louisiana, Florida, and Washington, D.C.

You've read this story before. States have for two decades been required to identify their lakes, streams, and estuaries that are "impaired", that is, polluted to the point where they are not "fishable" and "swimmable." The latter two terms are the test set out by the federal Clean Water Act. For those waterbodies that do not pass the test, the state must cut back on discharges from all sources to the point where they do. Where states fail to carry this out, the federal Environmental Protection Agency is supposed to take over the job. It has consistently refused. EPA has been hauled into court numerous times over this issue, often by Earthjustice Legal Defense Fund.

The latest state to have been chastised by a federal judge was Louisiana. Staff attorney Eric Huber filed suit against the EPA in 1996 once it became clear Louisiana had no intention of obeying the law. The plaintiffs were the Sierra Club and the Louisiana Environmental Action Network. On October 1 of this year, federal district court judge Mary Ann Lemmon essentially took over enforcement of this aspect of the Clean Water Act in Louisiana, handing down a rigid schedule for the federal and state governments to implement plans to clean up more than 250 of the state's waters, including the Mississippi River, over a relatively short, seven-year schedule. Most important, the court required that new pollution load limits be achieved by polluters within three years of being set.

In Florida, staff attorney Ansley Samson brought suit on behalf of the Florida Wildlife Federation, Save Our Creeks, and the Environmental Coalition of Southwest Florida. Again, a federal court found EPA responsible for implementing cleanup. Florida and the feds have until 2011 to clean up its approximately 700 polluted lakes, streams, and estuaries.

Meanwhile, a similar story line has played out in the nation's capital, where the EPA tried to duck its responsibility for cleaning up the Anacostia and Potomac Rivers, Rock Creek, and several other waterbodies. Again, a federal court ruled that the Clean Water Act requires EPA to step in. There, the situation is even more egregious than in many other places: as staff attorney Howard Fox, who represented the Kingman Park Civic Association, Friends of the Earth, and the Anacostia Watershed Society in litigation, pointed out, "Over a billion gallons of raw sewage are dumped into the Anacostia River every year, making it one of the nation's most polluted rivers." Hardly fishable and swimmable.

— From, In Brief, Autumn 1999

SOILING THE SEA FLOOR?

In Southeast Alaska's Tongass National Forest, salt water is the conduit of commerce. The forest sprawls across a 500-mile stretch of islands, headlands and mainland beaches that are divided by a twisting network of inland channels. Those passageways are the only viable means of transporting goods to and from the remote region.

The primary goods that have been transported in recent decades are logs – lots of them. And the favored way to move those logs is to dump them into the chilly waters that surround Tongass forests, bind them together into massive rafts and tow them to mills.

All that jostling takes a toll. When the logs slam into the water or when workers shove them together with powerful tugboats, the logs' bark sloughs off, often in great quantities. The bark becomes waterlogged and sinks, creating thick deposits on channel floors. That, in turn, may do harm to sensitive subtidal organisms.

The question is, how much harm?

Ask Buck Lindekugel, conservation director for the Southeast Alaska Conservation Council, and he'll tell you that the impact is substantial: "If you get enough of this stuff down there, you basically block out oxygen from the sediments. It's a big deal up here. All the communities depend on these marine waters for food, employment and pleasure."

Ask Jack Phelps, executive director of the Alaska Forest Association, and he'll tell you that the impact is negligible: "When you consider the total acreage of ocean bottom along that coast, you're talking about a very small footprint. We don't know that there's any documented evidence of harm to the benthic environment."

The trouble is that no one knows for sure. Conservationists, industry representatives and government regulators agree that hard scientific information is needed to gauge the impact the bark deposits may have on the subtidal communities of plants and animals that thrive below the surface of Tongass waters. To date, very little formal research has been done.

Despite the lack of data, government regulators say they know enough to consider bark deposits a concern. The bark smothers organisms such as anemones and urchins and may produce toxic emissions. The federal government considers the deposits a form of pollution, subject to regulation under the federal Clean Water Act. Logging companies are required to obtain permits to operate log transfer facilities, where logs are dumped into the water and then gathered into rafts or loaded onto vessels.

Enforcing the conditions of those permits, however, has been haphazard. Even though regulators have established a maximum size of one acre for bark deposits, several log transfer facilities have exceeded that with no consequence.

In August, the Alaska Department of Environmental Conservation released new criteria giving state officials more authority to set conditions for operating log transfer facilities. One condition is that companies must submit remediation plans for any sites that exceed the one-acre limit. But that doesn't necessarily mean the companies will be forced to clean up the sites.

The department has documented fourteen sites that exceed the one-acre limit. But others have been missed. Industry representatives say they have voluntarily taken steps to reduce the amount of bark that ends up on the ocean floor, such as gingerly placing the logs into the water rather than dumping them en masse from several feet up. And, they say, removing the bark, a process that could stir up sediments, may do more harm than good.

Lindekugel's group and other Southeast Alaska conservationists dismiss that argument as a thinly veiled attempt by industry to skirt its obligation to clean up the sites. They say the deposits should be removed or capped with a benign material. And they go one step further, calling for an end to bark deposits altogether. That could be done by requiring timber companies to barge all Tongass logs rather than tow them in rafts, or by making them strip timber of bark before it is transferred to water.

The harm that the bark deposits may do to subtidal ecosystems, conservationists say, is one more reason that Tongass logging should switch from wholesale export of raw logs to small-scale industry that uses Tongass timber to produce locally manufactured value-added products.

The new Alaska criteria are expected to go into effect by the end of the year. Meanwhile, a committee is being established to take a closer look at the impact bark deposits have on the environment and options to deal with them. That group will operate under the auspices of the state Department of Forestry.

— From, Forest Magazine, November/December 1999

Everglades Restoration Plan Reaches Congress

The largest environmental restoration plan in history has finally reached Congress after two years of painstaking and controversial development. The plan, submitted by the U.S. Army Corps of Engineers on July 1, 1999, is designed to restore South Florida/Everglades – a beleaguered ecosystem that stretches from Lake Okeechobee to Florida Bay.

The ambitious plan offers an opportunity to restore an unparalleled wilderness habitat. Unfortunately, the levees, canals, and pump stations built by the federal government earlier this century for flood control, land development, and agriculture also disrupted the flow of water into the Everglades, with terrible consequences for wildlife and ultimately the people of South Florida. Because their economy, their way of life, and their water supply depend on a healthy ecosystem, residents of South Florida stand to benefit from the restoration plan as well.

During the past two years, the World Wildlife Fund (WWF) has been closely involved in shaping the restoration plan, an $8 billion "blueprint" which describes how the existing water management structures and other facilities in the region will be reworked to deliver nearly natural water flows to the Everglades. WWF also played a key role in influencing specific restoration projects and in promoting funding for this program in Congress and in Florida.

"In February or March of 2000, we expect the Clinton administration to send legislation to Congress seeking approval for the concepts outlined in the plan," said Shannon Estenoz, WWF Florida Field Office Chief.

— From, Focus, September/October, 1999

A Split Decision on Chinook

Last spring, the National Marine Fisheries granted Endangered Species Act protection to several populations of Chinook salmon, postponing a decision on several others. This past September it moved to protect two more groups (California Central Valley spring-run and California Coastal), but left unprotected three others (Southern Oregon/Northern California, California Central valley fall and late-fall run, and Snake River).

All this comes as a result of Earthjustice Legal defense Fund litigation conducted on behalf of the Puget Sound Gillnetters Association, the Oregon Council of the Federation of Fly Fishers, the California Sport Fishing Protection Alliance, the Oregon Natural Resources Council, and The Bay Institute. Attorneys Amy Sinden from Seattle and Mike Sherwood from San Francisco collaborated in the effort. Some of these organizations are not happy with the decision to leave three populations (called "evolutionary significant units" in the jargon) unprotected, and further litigation is possible.

— From, In Brief, Autumn 1999

Council Chooses Options for Red Porgy Fishery

After much deliberation and discussion concerning the status of red porgy (a protogynous hermaphrodite) stocks in the South Atlantic region, and a series of public hearings, the South Atlantic Fishery Management Council voted to allow limited harvest of red porgy. At its recent meeting at Wrightsville Beach, NC, the Council voted 8-3 on a motion to allow a recreational bag limit for red porgy of 1 fish per person per day, and a commercial bycatch of 50 pounds per trip. There would be no harvest or possession over the bag limit and no purchase or sale of red porgy from January through April. These measures would include a 14 inch minimum size limit. The Council also requested that the current moratorium on fishing for red porgy be extended until these management actions as can be implemented as part of Amendment 12 to the Snapper/ Grouper Fishery Management Plan.

CONTACT:
Kim Iverson, Public Information Officer
(843) 571-4366

Slow News Month

I assume you have noticed that most of this issue of Briefs consists not of Institute news, but of fishery-oriented material I have excerpted from other publications. From time to time the flow of AIFRB material dries temporarily. Occasionally I muster the energy and creativity to fill the gaps with my own writing, but such flights of inspiration only rarely light in my decrepit cranium and even then must compete with pressing externalities. In this bimensis distractions included home remodeling, holidays, house guests, and not least, hunting seasons in North Carolina, Michigan, and Kansas. Once again I encourage officers and members, in their own self-defense, to submit novel material so that Briefs is not just a wet Reader's Digest.

District Directors

Alaska, Northern
Steven K. Davis
LGL Research Associates, Inc.
4175 Tudor Centre Dr. #101
Anchorage, AK 99508
abcted@dames.com

Alaska, Southeast
Bruce Wing
P.O. Box 210265
Auke Bay, AK 99821-0265
bruce.wing@noaa.gov

Atlantic Maritime
Vacant

Arizona - New Mexico
G. Morris Southward
Department of Experimental Statistics
New Mexico State University
Box 3130
Las Cruces, New Mexico 88003
southward@nmsu.edu

California, Northern
Thomas Moore
California Dept. of Fish and Game
P.O. Box 1560
Bodega Bay, CA 94923
mooretom@msn.com

California, Southern
Kevin Hill
California Dept. Fish and Game
8604 La Jolla Shores Drive
P.O. Box 271
La Jolla, CA 92038
khill@ucsd.edu

Capital
Vacant

Carolinas
Robert L. Dixon
NOAA, 101 Pivers Island Road
Beaufort, NC 28516
robert.dixon@noaa.gov

Florida
Thomas W. Schmidt
USDI Nat'l. Park Service
Everglades Nat'l. Pk., S. Fla. Res. Ctr.
P.O. Box 279
Homestead, FLA 33030
tom_schmidt@nps.gov

Great Lakes, South Central
Dora R. Passino-Reader
National Fish. Center
1451 Green Road
Ann Arbor, MI 48105-2897
dora_reader@usgs.gov

Gulf of Mexico, Northeast
Barry Costa-Pierce
b.costapierce@usm.edu

Keystone
Barbara E. Warkentine
1329 Balcom Avenue
Bronx, NY 10461
bewlc@cunyvm.cuny.edu

New England
John B. Pearce
Northeast Fisheries Center
166 Water Street
Woods Hole, MA 02543-1097
jack.pearce@noaa.gov

Oregon-SW Washington
Vacant

Texas
James Nance
Galveston Laboratory
SE Fisheries Science Center NMFS
4700 Avenue, U
Galveston, TX 77551
James.M.Nance@noaa.gov

Washington, NW
Vacant

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, 1329 Balcom Ave., Bronx, NY 10461, bewlc@cunyvm.cuny.edu -Secretary; Allen Shimada, NMFS, Office of Science and Technology, 1315 East West Highway, Silver Springs, MD 20910, allen.shimada@noaa.gov -Treasurer. ISSN-8755-0075

**********AUTO**MIXED AADC 285
Dr. William Baylitt 4
IATTC-SCRIPPS INSTITUTE OF OCEANOGRAPHY
8604 LA JOLLA SHORES DR
LA JOLLA CA 92037-1508

FIRST CLASS

American Institute of Fishery Research Biologists
c/o Joseph Bachlin
Lehman College, Biology
250 Bedford Park Boulevard West
Bronx, NY 10468-1589
Address Correction Requested

FIRST CLASS
U.S. Postage
PAID
Permit No. 92
Morehead City, NC 28557