



American Institute of Fishery Research Biologists

Promoting excellence in fishery science

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... BRIEFS ...

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Warkentine Receives Distinguished Service Award

At the August 2003 AIFRB Board of Control Meeting in Quebec City, Canada, President Richard Schaefer presented the Institute's Distinguished Service Award to Barbara E. Warkentine.

Barbara first joined the Institute as an Associate Member in 1986, and was the winner of several Research Assistance Awards, and upon completion of her doctorate degree was promptly promoted to member. During this period Barbara served as secretary of what was then the New York – New Jersey District. When the District Director became the Institute's Treasurer, Barbara took over the duties of District Director from 1993-2000, and during this period spearheaded the reorganization of the Northeast Region, and incorporated Pennsylvania and Connecticut along with New York and New Jersey into the new Keystone District. She has also long served on the Membership committee. Barbara also worked with former Presidents Vaughn Anthony, Clark Hubbs, and Gary Sakagawa to develop the Institute's Procedures Manual and Briefing Books into their present form. In 1996 Barbara was persuaded to take over the vacant position of Institute Secretary, a position she has held continuously to the present day. In 1998, following her appointment as Full Professor at SUNY Maritime College, Barbara was elected a Fellow of AIFRB.

It is in recognition of her outstanding service and dedication to the goals and functioning of the Institute that the Awards Committee has seen fit to honor her with the Distinguished Service Award for 2002.

Editor's Note: Not only has Barbara worked hard, she has worked cheerfully and with good heart. She has, many times, made my job as Editor immensely easier by prompt, accurate fulfillment of my requests. Congratulations, Barbara!



President Schaefer presents the Institutes Distinguished Service Award to Barbara Warkentine, Secretary of the Institute since 1996.

Sakagawa Honored by AIFRB and AFS



Gerry Ault presents painting by James Harris to Gary Sakagawa as a special award for exceptional service as AIFRB Past President.

On behalf of the AIFRB Board of Control and in recognition of his tireless and incredibly insightful efforts as Past-President, Dr. Gary Sakagawa was presented an original signed-painting by world renowned marine artist James Harris entitled "Champion Slam" (picturing a permit, a tarpon, and a bonefish) by Research Assistance Awards Chair Jerry Ault in La Jolla, California, over the Christmas holidays 2002.

Gary also received the Award of Excellence from the Western Division American Fisheries Society on April 15, 2003.

SOSA-Nishizaki Recipient of AFS Western Division Award of Excellence.

Dr. Oscan Sosa-Nishizaki was honored by the Western Division of the American Fisheries Society as recipient of their Award of Excellence at the Western Division April Meeting.

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

Fellow Sissenwine Earns Excellence Awards

The American Fisheries Society presented two awards in excellence to a long-time Falmouth, MA resident yesterday at a meeting of the American Fisheries Society in Quebec, Canada.

Michael P. Sissenwine of Whitecaps Drive is the 2003 recipient of both the William E. Ricker Resource Conservation Award for accomplishment in aquatic resource conservation and the Oscar E. Sette award for sustained excellence in marine fishery biology through research, teaching, and administration.

From 1996 to 2002, Dr. Sissenwine served as director of the National Oceanic and Atmospheric Administration Northeast Fisheries Science Center in Woods Hole. The center comprises five laboratories and 300 employees using two NOAA offshore research vessels. Dr. Sissenwine earned his doctorate in oceanography from the University of Rhode Island in 1975 and has been chief science advisor for the National Marine Fisheries Service since March 2003. As chief science advisor, he oversees scientific activities that support conservation and management of the nation's marine resources. He is responsible for about 1,400 staff in six fisheries science centers throughout the country. These science centers use 30 laboratories and eight offshore research vessels.

"I could not be more thrilled with the selection of Mike Sissenwine for this recognition by the American Fisheries Society," said Dr. William T. Hogarth, director of the National Oceanic and Atmospheric Administration. "As one of the world's top marine scientists, Dr. Sissenwine has dedicated his career in service to the country and the environment by helping develop world-class scientific principles used to support fishery management programs, and NOAA Fisheries is fortunate to have him lead our scientific programs," said Dr. Hogarth.



From: Falmouth Enterprise

A Lost Colleague Remembered

Hiroshi Kasahara

1919 – June 2003

Obituary

Dr. Hiroshi Kasahara, widely known international civil servant and academician specializing in fisheries development and management, and a long-time Member and Fellow of the American Institute of Fishery Research Biologists, died in Seattle, Washington in June after a long illness.

Dr. Kasahara was born in Japan in 1919 and graduated from the Fisheries Department, Faculty of Agriculture, of the University of Tokyo in March 1941. After service in the Japanese Army from December 1941 to June 1943, he worked at the Research Institute of Nippon Suisan Kaisha Ltd. to June 1950 and studied for his Ph.D. degree, which he received in 1951.



Dr. Kasahara's international career began in 1954 when he became the Assistant Director of the International North Pacific Fisheries Commission in Vancouver, B.C., Canada where he remained until 1964. During this period he published his comprehensive study on the "Fisheries Resources of the North Pacific Ocean", as part of the H.R. MacMillan Lecture series at the University of British Columbia. Part I appeared in 1961 and Part II in 1964.

In the latter year he left the INPFC and joined the United Nations Special Fund and Development Program in New York where he served until 1970 as Senior Project Officer, Fisheries and Oceanographic Projects, working with fishery development projects in many countries throughout the world.

Dr. Kasahara's academic career began in 1970 when he joined the University of Washington College of Fisheries as Professor of Fisheries and Associate Dean. During this period, Professor Kasahara also served on the International Marine Science Affairs Panel of the National Academy of Sciences Committee on Oceanography and Ocean Affairs Board and was a co-author of its report issued in 1972. While at the university, Prof. Kasahara joined with an interdisciplinary faculty group in advocating the restructuring of the major marine units of the University to create a single college. This objective was later accomplished, in 1982, with the creation of the College of Ocean and Fishery Science, consisting of the School of Oceanography, School of Fisheries (later the School of Aquatic and Fishery Sciences), and the Institute of Marine Studies (later the School of Marine Affairs).

In 1973, Dr. Kasahara returned to his international work when he left the University to join the Fisheries Department of the United Nations Food and Agriculture Organization in Rome where he was Director of the Fishery Resources and Environment Division. Dr. Kasahara retired from FAO in 1984. Dr. Kasahara is survived by his wife Toshiko.

Submitted by: Wilham T. Burke, Professor of Law Emeritus, University of Washington

William Burke's Eulogy for Hiroshi Kasahara

In the 1960s I was on the faculty at Ohio State University where we created a project to bring together people who were professionally involved in use and management of the ocean with others who were mainly social scientists and lawyers who were concerned with problems of maintaining social order and promoting general welfare. The idea was that these were two very different groups of people and that there ought to be more substantial communication between them in light of the political, social, economic and legal problems that were becoming widely recognized as significant.

We sought individuals who were well informed about major uses of the marine environment. Two of the principal experts consulted for this search and widely known for their expertise in fishery science and affairs on a global basis, were Wilber (Wib) M. Chapman and M.B. (Benny) Schaefer. In their opinion, Hiroshi stood out among those who were knowledgeable about global fisheries, which was then, as it is still today, one of the most controversial, complex and difficult sectors of ocean use and management. Accordingly, we invited Hiroshi to prepare the lead paper for the first segment of our conference in March 1967. Hiroshi was at that time on the staff of the United Nations Development Program. While Hiroshi was considered to be very well informed about world fisheries in general, his knowledge and understanding of Pacific Ocean fisheries was especially notable. He had served for several years as Assistant Director of the International North Pacific Fisheries Commission whose headquarters were in Vancouver, B.C. He also had produced a most comprehensive study on the "Fisheries Resources of the North Pacific Ocean" which was published in two parts in the H.R. MacMillan Lecture Series at the University of British Columbia.

At the time of this meeting, Hiroshi was already highly regarded for his expertise in fisheries and international fisheries management, and his paper for the meeting was meticulous in its coverage of fundamental issues. Little did I know at the time that I would before long learn first hand how Hiroshi accomplished the work he did. The following year I left Ohio State to join the University of Washington law school faculty and to my surprise very shortly thereafter Hiroshi joined the faculty of the then College of Fisheries.

This was very fortunate for me since my interests in international fishery regulation paralleled Hiroshi's and his presence allowed me (and many others) to profit from his understanding and knowledge of global fisheries. I was fortunate enough to enlist Hiroshi as a collaborator and senior investigator in a joint research project in North Pacific Fisheries Management. This was part of a larger series of studies funded by the Ford Foundation for the purpose of input into the preparatory work then getting underway for a global conference to negotiate a comprehensive agreement on the law of the sea, including fisheries as a central issue to be examined.

In the process of completing our study I got the full treatment of Hiroshi's truly ferocious attack on a research problem. He was indefatigable. We would do separate drafts of an agreed outline and then join in revising each other's work. I still can remember this because it was excruciating. Hiroshi was a perfectionist beyond any I had previously experienced. There was not a misplaced or misconceived jot or tittle that escaped his close eye. This lengthy monograph was edited and published in 1973 with the title "North Pacific Fisheries Management" by Resources for the Future, a Washington, D.C. research group.

About the same time, the U.W. law school was creating a new graduate program of study in law and marine affairs. Hiroshi was a vital part of the development of the curriculum for this course of study, and taught a course in the College of Fisheries which our students could take with profit.

Hiroshi was also a major participant in the efforts we began in 1970 to persuade the University to integrate and restructure the various and separate components of its units concerned with the ocean. Our aim at the time was to try to get a larger unit created that would bring together the several units concerned with the marine environment. Hiroshi shared this perspective and was a member of the small group, which initially wrote a letter to then President Odegaard to make the case, and later met with him to lobby for this change. Although this did not succeed initially, a new unit called the Institute for Marine Studies was created in 1972. Several years later the University reconsidered this question and a new college was created to include the College of Fisheries (which became the School of Fisheries, now the School of Aquatic and Fishery Sciences), the School of Oceanography (formerly Department of Oceanography), and the Institute for Marine Studies (subsequently changed to the School of Marine Affairs).

Also during this period, I took advantage of his expertise by persuading him to join in a unit I chaired in the National Academy of Sciences called the International Marine Science Affairs Panel, a subgroup of the then Committee of Oceanography (later the Ocean Affairs Board). Here again Hiroshi's writing skills and previous global experience in United Nations operations were invaluable and along with Warren Wooster, John Knauss and myself drafted an Academy report with the same title as the Panel.

Not long after this work, the College of Fisheries hierarchy was changed and Hiroshi lost his position as Associate Dean and in 1973 Hiroshi left for the United Nations Food and Agriculture Organization in Rome. Hiroshi became the Director of the Fishery Resources and Environment Division where he remained until his retirement in 1984. Hiroshi then returned to Seattle where he again helped us to organize and conduct research on the new regime for ocean fisheries. Hiroshi's health deteriorated not long thereafter and he was unable to join in our projects but his earlier contributions were vital.

Fond Thoughts of Hiroshi Kasahara

Lorraine Kissack Southward

I had not seen Hiroshi Kasahara since he left the International North Pacific Fisheries Commission to work with FAO in Rome, about 40 years ago. Even so, hearing that he had died brought great sadness to me. I met Hiroshi-san in 1958. He was then Assistant Director of the International North Pacific Fisheries Commission, headquartered at the University of British Columbia in Vancouver, B.C. Roy Jackson was the Executive Director. They needed a typist to help the secretary, and I was hired. When the secretary quit shortly after I began as a temporary typist, I was hired as secretary. I did not know then that I was entering into association with a couple of the brightest and the best in fisheries science and administration. But I soon learned. I remember my associate Hiroshi-san and his wife, Toshiko-san, with affection and joy. Working with him was stimulating, challenging, and fun. He was adamant about accuracy and detail. I don't know if I came to INPFC with nit-picker tendencies or if I learned attention to minute detail from him during the years we worked together on statistical reports, annual reports, research bulletins, and annual meeting papers. He taught me so much, in a kindly manner, smiling ever so slightly when he was surprised that I did not already know something that was self-evident to him. I remember especially the incredible ability he had to translate the scientific reports submitted for the annual meetings. He sat down at the Dictaphone machine with a Japanese-language report in his hand, and the little blue cylinders turned until full of an English version. His language skills were absolutely amazing. He was, in short, brilliant. Because Japanese scientists could read English, the English documents were not translated. But he could have done that with skill, too. The Kasaharas were hospitable to me. We enjoyed good food and music together. I remember especially how pleased they were when I was able to provide them with program notes from a performance of the Soviet Army Chorus and Band. They had a recording of Victoria de los Angeles singing with cellos, about 10 cellos, I think. Once while visiting them, I admired a small wooden bowl. That was when I learned not to admire things in a Japanese home because the owners would give it to you! That bowl is in my living room today, a tangible remembrance of time spent with good friends. Toshiko-san once gave me a small watercolor that was done by someone in her family. I am looking at that painting now, and realizing again how much I treasure my friendship with these wonderful people. As I said, I have not seen them for many years, but time has not dimmed my affection and admiration. With the passing of this man, my world seems a lesser place.

Outstanding Achievement Awards 2003:

Initial Announcement: More Later

Individual Achievement Award: Brian J. Rothschild

Dr. Brian J. Rothschild has an outstanding scientific record. He has many publications and his work on stochastic processes and operation research, recruitment theory, and biological and physical processes are widely cited. Much of his work has involved founding or developing scientific committees including GLOBEC and ICES. Dr. Rothschild has served in many NMFS and NOAA Positions such as Deputy Director, Director and Policy Advisor. His work nationally and internationally on fishery scientific and management agenda has been widely recognized. In addition, his guidance and mentoring of students and scientists has been exceptional. Dr. Rothschild's over one-half century of service to fisheries is deserving of this award.

Group Achievement Award: NWFSC Ecotoxicology Team

The Northwest Fishery Science Center, NMFS, NOAA Ecotoxicology Research Team for more than 30 years has made many valuable contributions to our understanding of the effects of contaminants on marine species. The group has a long record of innovative research that provides the basis for fisheries management and conservation. The group has a strong training program, from elementary school through graduate level both locally and internationally, and students and post docs have been an integral part of their research programs for many years. Individual scientists and the group have been recognized for their scientific contributions in the field of contaminant effects. New

analytical techniques to rapidly assess exposure of fish to oil-related compounds that are now used worldwide were developed by the Ecotoxicology Research Team. The Ecotoxicology Team has been a leader in research on effects of contaminants on fish, monitoring of coastal environments, and has helped in the restoration of many polluted sites around the nation.

Members of the AIFRB Board of Control assembled at Quebec, Quebec, August 9-10, 2003



Board of Control. Left to Right: Dora Passino-Reader, Kevin Friedland, Gary Sakagawa, Marty Golden, Allen Shimada, Tom Keegan, Dick Schaefer, Barbara Warkentine, Joe Rachlin, Gerry Ault, Tom Lambert, Morris Southward. Attending, but not pictured were Gil Radonski, Joe Margraf, and Gene Huntsman.

Treasurer's Report for FY 2003

(as of August 1, 2003)

Allen Shimada

(abridged by Editor)

As of Friday, August 1, 2003 I can report general improvement in the state of the Treasury. For a second year, the Institute did not require transfer of investment income to cover operating expenses. Dividends and interest amounting to \$1,114 were reinvested. AIFRB continues to lose dues paying members and receipts have declined from \$17,032 (FY 01) to \$13,145 (FY 02) to \$12,320 in FY 03. 80 members are delinquent one year (-\$2,400) and 56 members are delinquent two years (-\$3,360). Total membership will fall to 688, if two-year delinquents are dropped.

Of special note is a \$7,000 service contract received from the NMFS-SWFSC. The Institute managed travel reimbursement and registration fees for Mexican scientists attending the Pacific Coast Sharks Symposium held at the AFS/Western Division Meeting at San Diego, CA. AIFRB also provided a student rapporteur and delivered a proceedings report. A management fee of \$2,920 is reported in net income.

Good progress continues in the reduction of annual operating expenses. BRIEFS is the largest outlay (\$7,014). BOC travel reimbursement is budgeted for \$4,400. The cap on W.F. Thompson Best Paper and Research Assistance awards has been helpful in balancing the budget. Officer and committee chair expense reimbursements remain modest.

Tax deductible contributions to Unrestricted Use, and retained in operating cash (\$1,114), have partially offset the shortfall in dues collection.

In September 2002, the Founders Fund received a second donation of \$10,000 from Dr. and Mrs. Hiroshi Kasahara. The general membership contributed an additional \$2,160.

Over the past 11 months, the Institute's two equity accounts have participated in the rise of the general market. Account valuation has increased dramatically, particularly from early March 2003 onward. On August 1, 2003, the combined Founders Fund and the Smith Barney Capital accounts are valued at \$72,893. This represents a \$26,962 (+58.7%) increase over fiscal year-end 2002. Cost basis for the combined accounts increased from \$66,639 to \$82,893 (+24.4%) and represents reinvested dividends and new contributions made during FY 2003. Unrealized gain/loss improved from -35.8% in 2002 to -12.8% or -\$10,623. Closed transactions income is \$1,961. for a 2.69% annual return, which is two times the current dividend rate of the S&P 500.

American Institute of Fishery Research Biologists			
Statement of Cash Receipts and Cash Disbursements			
9/1/02 through 8/1/03			
	9/1/01 to 8/31/02	9/1/02 to 8/1/03	Amount Difference
Cash Receipts			
AIFRB Service Contract	0.00	2,920.00	2,920.00
Founders/Capital/Unrestricted Funds	6,587.00	13,274.00	6,687.00
Member Dues	13,145.00	12,320.00	-825.00
District Donation	100.00	0.00	-100.00
Investment Income (Retained '02-'03)	1,454.03	1,114.63	-339.40
Supplemental Funds	500.00	4,080.00	3,580.00
Sequoia Bank Interest (Chk)	45.30	20.23	-25.07
Total Cash Receipts	21,831.33	33,728.86	11,897.53
Cash Disbursements			
AIFRB Meeting Service	0.00	0.00	0.00
AIFRB Reception	650.00	500.00	-150.00
AIFRB Awards			
Achievement Award Expense	167.07	197.83	30.76
Research Assistance Award	1,050.00	1,050.00	0.00
W. F. Thompson Award/Expense	500.00	500.00	0.00
Service Charges (Sequoia Bank/Schwab)	140.00	194.00	54.00
Board of Control	3,584.14	4,400.00	815.86
Bridge Loan	500.00	0.00	-500.00
BRIEFS Newsletter	6,990.64	7,014.41	23.77
Collection	0.00	0.00	0.00
District Donation	100.00	0.00	-100.00
District Recruitment	400.00	0.00	-400.00
Foreign Check Collection	0.00	0.00	0.00
Honorarium	0.00	0.00	0.00
License Fees	0.00	0.00	0.00
Membership Expense	140.09	0.00	-140.09
Other (4th WFC)	1,000.00	0.00	-1,000.00
President's Expense	0.00	587.93	587.93
Pr-Prof-Conduct	0.00	0.00	0.00
Production Editor	210.90	0.00	-210.90
Reimbursement	0.00	117.15	117.15
Service Contract Advance	0.00	4,080.00	4,080.00
Secretary's Expense	0.00	0.00	0.00
Transfer Funds (SQB/FF/SSB)	5,420.00	12,160.00	6,740.00
Travel Display	0.00	0.00	0.00
Treasurer's Expense	1,143.30	219.41	-923.89
Total Cash Disbursements	21,996.14	31,020.73	9,024.59
Net Change	-164.81	2,708.13	2,872.94
Beginning Cash Balance	2,610.73	2,445.92	-164.81
Estimated Cash at End of Year	2,445.92	5,154.05	2,708.13

Research Assistance Awards

2003 Recipients

Jerald Ault, Committee Chair

The Research Assistance (RA) Award established in 1986 is offered annually to AIFRB graduate students and other Associate members to support travel expenses associated with professional development. The RA provides a maximum award of \$350 towards the opportunity to present results of an original paper or research project of merit at scientific meetings, or to conduct research at distant study sites. All AIFRB Associate Members in good standing are eligible. An individual may receive two awards in a lifetime. Five (5) AIFRB associate members received \$210 awards in 2003. The award recipients, their affiliation, sponsor and meeting attended are listed below.

2003 Research Award Recipients: Mr. David Howe of the University of Massachusetts presented a paper entitled 'Temporal and spatial effects on the feeding of age-0 striped bass, (*Morone saxatilis*), in the mid-Hudson River' at the July 2003 meeting of the American Society of Ichthyologists and Herpetologists in Manaus, Brazil. Mr. Darin Topping of California State University at Long Beach presented the paper entitled "Movement patterns, site fidelity, and habitat use of California sheephead (*Labridae*) in a marine reserve" in July 2003 meeting of the American Society of Ichthyologists and Herpetologists in Manaus, Brazil. Mr. Dan J. Daugherty of Purdue University will present the paper entitled 'Seasonal movements and habitat use of flathead catfish in the St. Joseph River, Michigan' in the Ictalurid Symposium at the December 2003 meeting of the Midwest Fisheries and Wildlife Conference in Kansas City, Kansas. Mr. Yannis Papstamatiou of California State University at Long Beach traveled to Manaus, Brazil, to present the paper entitled 'Gastric pH changes associated with feeding: using pH to study the foraging ecology of sharks' at the American Elasmobranch Society in July 2003. Mr. Marcus Drymon of Grice Marine Laboratory, South Carolina, traveled to Manaus, Brazil, to present the paper entitled 'Age, growth and maturation of the finetooth shark, (*Carcharhinus isodon*), in southeastern US waters' at the American Elasmobranch Society in July 2003.

W.F. Thompson Award 2001

Best Student Paper

Jack Pearce, Committee Chair

The winner of the W.F. Thompson Award for the best student paper, 2001, is SungKwon Soh. Dr. Soh now resides in Korea. His paper, judged with nine others, was some distance ahead of the others. A well-written and conceived paper, it deals with a very timely topic, i.e. the use of reservations, sanctuaries, in the management of bottom dwelling species, rockfishes. It was a joy (fun) to read the almost two score titles, selecting the best, then judging the winner from ten best papers. Dr. Soh's paper:

The potential role of marine reserves in the management of shortraker rockfish (*Sebastes borealis*) and rougheye rockfish (*S. aleutianus*) in the Gulf of Alaska.

SungKwon Soh

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Abstract – Shortraker and rougheye rockfish (*Sebastes borealis* and *S. aleutianus*) have been an independent management subgroup of the Gulf of Alaska slope rockfish assemblage since 1991. Special concerns are proposed for the management of these species because they are very slow growing, long-lived, and commercially important.

Marine reserves (harvest refugia) have often been proposed as a valuable management tool for mitigating overfishing and maintaining species and habitat diversity. Their effectiveness in fisheries management, however, is poorly understood and concepts regarding their use are largely untested. Our study investigated the potential role of harvest refugia in the management of these two species by using a Geographic Information System (GIS) application to design harvest refugia networks of varying spatial extent. Twenty-year projections employing a population dynamics model were used to compare ending biomass and fishing mortality under the current management system with biomass and fishing mortality under refuge management systems. The results indicate that harvest refugia can be used to greatly reduce discards and serial overfishing of substocks without reducing current catch levels.

Manuscript accepted 24 July 2000.

Fish. Bull. 99:168-179 (2001)

Candidates Chosen

The Nominating Committee, chaired by Gary Sakagawa, has chosen two candidates for the post of president elect: Linda Jones of the Northwest Fisheries Science Center, NMFS, NOAA, and; Douglas Vaughan of the Beaufort (NC) Group of the Southeast Fisheries Science Center, NMFS, NOAA

Biographies and other information about the candidates will be published in *Briefs* prior to the election in 2004.

AIFRB Sponsors Major Symposium at American Fisheries Society Meeting, Quebec, August 2003

The Institute sponsored a major symposium "New Quantitative Methods in Fishery Stock Assessments," at the American Fisheries Society (AFS) Meeting in Quebec, Quebec on August 14, 2003. Consisting of 17 papers the session was organized by Doug Vaughan, Mike Prager and Erik Williams of the Beaufort, NC facility of the Southeast Fisheries Science Center, NMFS, NOAA and by John Hoenig of the Virginia Institute of Marine Science. The Marine Fishery Section of AFS was a cosponsor. Abstracts of the talks given follow:

Comparisons of Alternative Surveys of Fishing Effort and Catch on Maine For-Hire Boats

*D.A. Van Voorhees, W.R. Andrews, B.J. Joule, M. Metcalfe, C.S. Brown and R.B. Watts,
U.S. Department of Commerce, NOAA Fisheries, Fisheries Statistics and Economics Division,*

Since 1996, the Maine Department of Marine Resources and NOAA Fisheries have worked cooperatively to evaluate alternative survey methods for monitoring fishing effort and catch on charterboats and headboats operating out of Maine ports. A new boat directory telephone survey (BDTS) of fishing effort was tested and compared with the traditional random-digit-dialing coastal household telephone survey (CHTS) component of the NOAA Marine Recreational Fishery Statistics Survey (MRFSS). The BDTS, which collected recreational fishing effort data each week from operators of randomly selected boats, covered the for-hire fishery more completely and sampled for-hire fishing effort more efficiently than the traditional CHTS. Unlike the CHTS, the BDTS independently sampled and estimated effort for charterboats and headboats. The total effort estimates from the stratified BDTS were more precise than the traditional non-stratified MRFSS estimates, and they showed more credible annual and seasonal trends. Over the same time period, catches observed and reported in MRFSS dockside interviews of charterboat anglers were compared with catches reported by captains for the same fishing trips to evaluate quantitative and qualitative differences in the data collected. Although minor differences were found in counts of landed fish, significant differences were found in counts of released catches. Estimates of mean catches based on the dockside samples were expanded by BDTS and traditional MRFSS effort estimates to obtain and compare alternative estimates of total catch by species. In addition, the new estimates of effort and catch on headboats were compared with counts reported in the mandatory logbook required by the NOAA Vessel Trip Reporting program.

A New Approach for Modeling Growth and Estimating Consumption for Free Ranging Fishes

B.E. Thompson and D.B. Hayes, Department of Fisheries and Wildlife, Michigan State University

Traditional methods for modeling growth are often limited by missing recapture observations that prevent individual growth calculations for a give time interval. Our purpose is to present a method for modeling growth rates of free-ranging juvenile steelhead *Oncorhynchus mykiss* that addresses this limitation. Age-1 juvenile steelhead were individually marked with PIT tags, released at 13 sites within a Michigan watershed, and sampled monthly (May to November) with barge electrofishing. Individual growth was modeled using site-specific daily water temperature and by optimizing the proportion of maximum consumption (P) parameter for the bioenergetics equation. Results indicate that individual steelhead growth can be accurately modeled using water temperature and a site specific P. Spatial and seasonal variation in P had a greater influence on steelhead growth rates than water temperature. Neither size selective loss nor growth compensation was observed in this study. Advantages of using this method to model fish growth include the ability to: bridge data gaps where observations are lacking in individual length histories, rigorously test for differences in P across sites and time periods, estimate variability of P among fish within a given stream reach, and determine the relative effect of temperature versus other habitat components on fish growth.

Comparison of Two Approaches for Estimation of F from Catch-Survey Models Used to Assess the Blue Crab Stock of Delaware Bay

D.M. Kahn, Delaware Division of Fish and Wildlife

Catch-survey models estimate absolute stock size, using catch estimates in numbers and survey indices of relative abundance. Investigators have taken two approaches to estimate the impacts of fishing. Collie and Kruse (1998) used catch and stock size estimates to estimate exploitation. Conser and Idoine (1992) used estimates of stock size to estimate Z, then subtracted constant M to estimate F. Baranov's catch equation can be written as $F = Z/A * U$, where A is annual total mortality rate and U= exploitation. Estimates of F should then be functions of both U and Z. I take output of a catch-survey model of the Delaware Bay blue crab stock and develop two sets of estimates of F, from exploitation and from survival (Z). For this stock, density-dependant mortality and mortality from severe winters produce non-constant M. Analysis shows the first set of estimates are correlated with both exploitation and with Z. In contrast, the survival-based estimates of F are not correlated with exploitation, and so are undesirable for this stock. Although estimates of constant M are employed in two steps of the estimates of F from exploitation, these F estimates are still an improvement over those estimated from survival.

Multi-Year Index-Removal Models which Allow for Various Assumptions about Catchability for Tasmanian Rock Lobster

*T.F. Ihde and J.M. Hoenig, College of William and Mary, Virginia Institute of Marine Science;
S.D. Frusher, Tasmania Aquaculture and Fisheries Institute, University of Tasmania*

Index-removal models are used to estimate abundance, exploitation rate and survey catchability coefficient in populations that experience a relatively large, known removal. The method requires that an index of population size be obtained from a survey before and after the removal and assume that the index is proportional to abundance. It is assumed that survey removals are negligible and that, except for the fishery removal, the population is closed between surveys. In the standard method, the catchability coefficient is assumed equal for both surveys, and parameter estimates are made separately each year. If catchability is constant, precision can be improved by analyzing data from all years simultaneously. In reality, however, catchability is often affected by a variety of factors, and changes over the fishing season. If pre- and post- season catchabilities differ, the standard method will provide biased results (an increase in catchability between surveys causes a positive bias in the population estimate). However, we show that a model incorporating seasonal changes in catchability can be developed if pre- and post-season indices have been obtained in at least two years with different harvest mortality rates, and if the seasonal catchability coefficients remain constant from year to year. We present two new index-removal models. The first assumes catchability remains constant, while the second assumes that pre- and post-harvest catchability coefficients differ but are constant between years. We then describe how to test assumptions about catchability, and thus determine which analysis is most appropriate for analyzing data from the Tasmanian rock lobster fishery.

Combining Radio-Telemetry and Fisheries Tagging Models to Estimate Fishing and Natural Mortality Rates

*K.H. Pollock and H. Jiang, Biomathematics Program, Department of Statistics, North Carolina State University;
J.E. Hightower, U.S. Geological Survey, NC Cooperative Fish and Wildlife Research Unit,
North Carolina State University*

The traditional multiple year tag-return method is a fundamental approach for estimating fishing and natural mortality rates in fisheries. It can provide reliable and precise estimation of the parameters when the tag-reporting rate is known. However, it is often difficult to estimate the reporting rate accurately. An additional disadvantage is that this method has to estimate natural mortality indirectly because natural deaths are not observable. Recently fisheries biologists have begun to implement telemetry methods to estimate fishing and natural mortality. The advantage of the new telemetry method is that it contains direct information about natural mortality and survival. A shortcoming is that there is no direct information about both fishing and natural mortality to obtain more precise and effectively unbiased parameter estimates, including reporting rate estimates for the regular tags. Using simulation when radio-tag relocation probability (p) equals 1, we found that the relative standard error (RSE) of natural mortality (M) estimates in the combination method is much improved compared to the tag-return method and also improved compared to the telemetry method. The tag reporting rate estimates are typically very precisely estimated in the combined model. This is also important as tag reporting rate is not easy to estimate in many other situations.

Estimation of Survival Rates of Lake Trout from Lake Superior Using Cormack-Jolly-Seber Capture-Recapture Methods

K.H. Pollock and J. Yoshizaki, Depts of Statistics and Zoology, North Carolina State University; M.C. Fabrizio, National Marine Fisheries Service, Highlands, NJ; S.T. Schram, Wisconsin Dept of Natural Resources

We present survival estimates for lake trout marked and recaptured once per year at Gull Island Shoals on Western Lake Superior from 1969 to 1996. The estimates were computed using the Cormack-Jolly-Seber capture-recapture method and Program MARK. Akaike's Information Criterion (AIC) was used for model selection. This 27-year study is of great importance to understanding the population demography of lake trout in this system. Unfortunately until 1986 the two types of tags used had very high loss rates that complicate analysis. In addition, capture rates are low and variable between years. We discuss in detail the assumptions of our estimates, their precision, and the special methods we used to handle the tag loss. We also discuss the introduction of a refuge.

Production Models: A Simulation Study Evaluating the Incorporation of Age

E.N. Brooks, C. Porch, NOAA Fisheries/Southeast Fishery Science Center, and C.P. Goodyear

The simplicity and comparatively low input demands of surplus production models make them an appealing modeling tool, particularly when data are not available to use a more sophisticated model. However, their simplicity leads to criticisms for lacking biological detail (no age-structure, no explicit stock-recruit function, no fecundity or maturity at age, no age-specific mortality or selectivity). Age structured production models offer a step up in level of model complexity without requiring aged catch. They incorporate biological processes and age-structured parameters, and as a result, demand much more data. Despite the simplicity of surplus production models, several simulated evaluations have shown them to produce qualitatively valid results, and in some cases they performed as well as age structured production models. No large-scale comparison has been made to determine if this is a general result or if there are particular conditions where one model would be expected to outperform the other. Thus, we address the issue of model realism versus model dimensionality. We present results of a factorial simulation, where we evaluate the performance of both models in terms of their ability to estimate management benchmarks and current population status. We consider factors such as life history, selectivity pattern, multiple fisheries, CPUE trends, length of time series, and growth curve information (whether we know the "true" curve or borrow one from a related species). The ultimate question to be answered is: when aged catch is unavailable, does the more realistic age structured production model produce better estimates than a surplus production model?

Quantification of Productivity Regimes Using a Sissenwine-Shepard Model

R.K. Mohn, MFD/BIO, Dartmouth, NS

The Sissenwine-Shepard* framework is an age-structured production model, which is applied to VPA estimates for 4VW haddock for the period 1948-2001. MSY is used as a proxy for productivity and is estimated using moving data windows. The MSYs cycle from highly productive periods in the 1960s and the early 1980s of about 30,000 t/yr to lows of about 5,000 t/yr in the early 1970s and 1990s. The productivity is seen to be quite sensitive to changes in growth rate, natural mortality rate and stock-recruitment over the 54-year data series. However, it is insensitive to the observed changes in maturity and partial recruitment. Implications of time or biomass dependent productivity and hence biological reference points are given.

*Sissenwine, M.P. and J.G. Shepard. 1987. An alternative perspective of recruitment overfishing and biological reference points. *Can. J. Aquat. Sci.* 44:913-918.

A Functional Response Model for Chinook Salmon in Lake Huron

N.E. Dobiesz and J.R. Bence, Michigan State University, Department of Fisheries and Wildlife

Using age-structured population models coupled with bioenergetics models we estimated that Chinook salmon predation in Lake Huron accounts for 70% of the total consumption of open-water prey fishes. Increases in the number of Chinook salmon stocked along with improvements in survival of stocked fish account for their approximately 60% increase in abundance and consumption from the mid 1980s to their peak values in the late 1990s. A decline in lake trout and Chinook salmon growth during this time period suggests forage demand may have exceeded prey availability. From 1974-1984 when Chinook salmon growth was high, an age 2 fish consumed a daily average of 81.5 g of prey fish during the growing season. As growth rates declined after 1985, the same fish consumed only 57.8 g of prey fish. While bioenergetics models have provided insights into forage demand based on growth, projections require, explicitly or implicitly, a functional response model that relates predator consumption of prey to prey abundance. We have parameterized a Type II functional response using our bioenergetics-based estimates of consumption by an individual Chinook salmon and will discuss the difficulties we encountered and uncertainties associated with the resulting parameter estimates.

VRAP, a Viability and Risk Assessment Model for Evaluating Harvest and Recovery of Listed Salmon Populations

N.J. Sands, Northwest Fisheries Science Center, NOAA

The Puget Sound Chinook Evolutionarily Significant Unit (ESU), containing 22 existing populations, was listed as threatened in 1999. Recovery planning entails modification to existing habitat, hatchery, and harvest management. The VRAP (viability and risk assessment procedure) model was developed to compare the risk of various levels of harvest on a salmon population given uncertainty in our estimates and projection of annual variability in environmental conditions that affect survival. The population size is projected for future years given a spawner recruit relationship that may include up to two environmental covariates, process error, and annual variability in the covariates. Environmental variation may include autocorrelation, trends, or cycles and may relate to natural effects or human changes in the habitat conditions. The model also includes an error factor for harvest management's ability to achieve target harvest rates. The model has been used to determine acceptable (i.e., does not impede rebuilding of stock levels) harvest levels under the ESA 4-d rule for several Puget Sound Chinook populations. The risks measured are for risk of extinction and probability of obtaining a target escapement threshold in a given number of years.

Performance of Time-Varying Catchability Estimators in a Statistical Catch-At-Age Analysis

M.J. Wilberg and J.R. Bence, Department of Fisheries and Wildlife, Michigan State University,

Statistical catch-at-age analysis (SCAA) has become an important tool for fishery stock assessment. Fishery effort is often used as a data source in SCAAs to constrain fishing mortality estimates. However, it is often thought that the relationship between fishing mortality and fishery effort (catchability) changes over time either through density dependent or density independent processes. We used Monte Carlo simulations to evaluate how different methods of estimating catchability within a SCAA model performed when the models were confronted with different data generating scenarios. Our data generating models included cases where catchability changed abruptly or gradually over time and where catchability was explicitly a function of population abundance, and we considered corresponding estimators. We evaluated the performance of the estimators by their bias and accuracy in determining quantities of interest such as abundance in the last year. Some estimators performed well only when applied to data simulated using a catchability model that matched the estimator. Other estimators, in particular those that allowed flexibility in how catchability changed over time, performed better in a wider range of circumstances. No estimator is best for all underlying models of catchability, hence stock assessment with alternative assumptions can be enlightening.

Comparison of Virtual Population Analysis and a Statistical Kill-At-Age Analysis for a Recreational Kill-Dominated Fishery

T.J. Quinn, II, Juneau Center, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, and J.R. Bence, Department of Fisheries and Wildlife, Michigan State University

We used simulations based on a walleye (*Stizostedion vitreum*) fishery to compare the efficacy of virtual population analysis (VPA) and statistical kill-at-age analysis with auxiliary survey information (KAWS). At low fishing mortality rates and high kill measurement error (CV=25%), VPA and KAWS models performed poorly. Relative error in estimates of vulnerable population, spawning stock biomass, and exploitation rate decreased with increasing fishing mortality. VPA model performance degraded more quickly than the KAWS models that assumed an incorrect kill selectivity pattern through time. The survey weighting term in the objective function of KAWS models had a significant effect of relative error of vulnerable population, spawning stock biomass, and exploitation rate in the final year, and there were significant interactions between the weighting term and other effects in this simulation exercise, which made interpretation of the consequences of different weightings difficult. The degree of non-additivity of fishing mortality substantially affected the reliability and bias of KAWS models that assume single kill selectivity through time. A KAWS model, which assumed that kill selectivities did not change, substantially overestimated the spawning stock biomass in the final year in a fishery with large non-additivity of fishing mortality. When using kill at age models, given the uncertainties in kill selectivities, it is likely prudent to use both VPA and KAWS models when estimating population size.

A Stochastic Decision Based Approach to Assess the Status of Exploited Populations

A.F. Sharov, Maryland Department of Natural Resources and T.E. Helser, Northwest Fisheries Science Center

We propose a two-tier stochastic decision-based framework that uses a mixed Monte Carlo – bootstrap procedure to estimate probability distribution for both the terminal year fishing mortality rate and the replacement fishing mortality rate, approximated by F_{med} as an overfishing definition. Using the probability density of fishing mortality estimates (PDF), the stochastic decision based approach generates a probability profile by integrating the area under the PDF for different decision confidence levels which can be thought of as one tailed alpha probability from standard statistical hypothesis testing. We demonstrate this approach on several examples that include crustacean (blue crab) and finfish (striped bass) exploited populations. This approach can be extended to decisions regarding control laws that specify both maximum fishing rate and minimum biomass thresholds.

What Are Appropriate Rebuilding Targets for Overfished Stocks?

J.K.T. Brodziak, National Marine Fisheries Service, Northeast Fisheries Science Center, Woods Hole, MA and C.M. Legault, Southeast Fisheries Science Center, Miami

Worldwide, many fisheries resources have been depleted and are being overfished. In the United States, legislative mandates to recover overfished resources require setting rebuilding targets for stock biomass B_{MSY} and fishing mortality F_{MSY} . A key difficulty in determining appropriate targets for overfished stocks occurs if assessment information is only available for the recent past when overfishing was occurring. In particular, target biomasses of stocks with a long history of overfishing may be systematically underestimated due to the restricted range of observations. We develop an empirical Bayesian approach for estimating rebuilding targets of overfished stocks. Alternative stock-recruitment curves combined with uncorrelated or correlated error structures are used to construct likelihood functions for a set of candidate models. Informative priors for maximum recruitment are developed from statistics of observed recruitment distributions. Informative priors for the steepness of the stock-recruitment curve are developed from meta-analyses. Markov chain Monte Carlo techniques are used to sample the posterior distribution of stock-recruitment parameters. This uncertainty is then incorporated into standard age-structured techniques to calculate the distribution of B_{MSY} and F_{MSY} . Model probabilities are computed for each candidate model. Model-averaging techniques are then applied to estimate rebuilding targets that account for model selection uncertainty. We illustrate our approach using three overfished groundfish stocks from Georges Bank: Atlantic cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*) and yellowtail flounder (*Limanda ferrugineus*).

REPAST – A Framework for Calculation of Target Reference Points from Limit Reference Points

M.H. Prager, NOAA Beaufort Laboratory; C.E. Porch, NOAA Fisheries, Southeast Fisheries Science Center, Miami, FL; K.W. Shertzer, NOAA Beaufort Laboratory; J.F. Caddy, Departamento de Recursos del Mar, Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, Mérida, Mexico

Precautionary fishery management requires distinguishing between target and limit reference points. We present a simple probability framework for deriving a target reference point in fishing mortality rate or biomass from the corresponding limit reference point. Our framework is a generalization of earlier work by Caddy and McGarvey. Both methods require an a priori management decision on the allowable probability of exceeding the limit reference point; our new method removes a major assumption by accounting for uncertainty in the limit reference point. Either method can be implemented easily on a modern desktop computer. Our generalized framework is more complete, and we believe that it has wide applicability in the use of fishery reference points, or for that matter in other conservation applications that strive for resource sustainability.

Multispecies Modeling of Atlantic Menhaden and Its Predators in Chesapeake Bay II: An Ecopath With Ecosim (EwE) Approach

R.J. Latour and M.J. Brush, Virginia Institute of Marine Science, College of William and Mary

There currently exists a great need to turn towards a multispecies approach to fisheries management. One aspect of this is the development of multispecies models which take into account direct and indirect trophic interactions among species. Our group is currently investigating various approaches to modeling multispecies fisheries, focusing on the menhaden-based food web in Chesapeake Bay. In this talk, we present an Ecopath with Ecosim (EwE) model of this food web, which is comprised of Atlantic menhaden, striped bass, bluefish, and constructed large-scale EwE model of Chesapeake Bay. The input parameters (i.e., biomass, total mortality, consumption to biomass ratio, diet composition, etc.) were obtained from single-species stock

assessments and/or fisheries independent survey data. The primary objective of the model is fisheries policy exploration. As such, the model was used to simulate a series of hypothetical management scenarios involving various fishing mortality rates for both Atlantic menhaden and each of its predators. The model was also used to explore the ecological role of Atlantic menhaden as both prey for important managed piscivores and as grazers of phytoplankton in Chesapeake Bay.

Multispecies Modeling of Atlantic Menhaden and Its Predators in Chesapeake Bay II: Coupling Species-Specific Bioenergetics Models

R.J. Latour and M.J. Brush, Virginia Institute of Marine Science, College of William and Mary

There currently exists a great need to turn towards a multispecies approach to fisheries management. One aspect of this is the development of multispecies models which take into account direct and indirect trophic interactions among species. Our group is currently investigating various approaches to modeling multispecies fisheries, focusing on the menhaden-based food web in Chesapeake Bay. In this talk, we present a multispecies bioenergetics model of this food web based on linked, individual-based models for Atlantic menhaden, striped bass, bluefish, and weakfish, with bay anchovy as an alternate prey source. Using existing menhaden bioenergetics models as a starting point, we have developed an age-structured menhaden model for Chesapeake Bay. To produce a model capable of predicting both growth and consumption, we considered various formulations for the latter, including use of the traditional p-value, foraging models, and functional responses. The menhaden model has been coupled to published bioenergetics models for striped bass, bluefish, weakfish, and bay anchovy, using the relationship between food concentration and predation rate as the link between predators and prey. Population size (and therefore biomass) calculations are run concurrently using estimates of recruitment and mortality due to predation and fishing. The resulting model is a process-oriented, “first principles” approach to simulating multispecies fisheries. As such, it is readily coupled to empirical or process-based models of lower trophic levels, thus making it possible to explore the impact of both top down (e.g. management scenarios) and bottom up (e.g. eutrophication, climate change) processes on multiple fish populations.

A Blue Marlin by Any Other Name...

As some of you may know, there has never been a wide acceptance of the scientific name “*Makaira mazara*” for blue marlin in the Pacific. Based on genetic work published beginning in 1995 and thereafter by Drs. John Graves, Jan McDowell and Vince Buonaccorsi, it has become clear that blue marlin is a single species in all oceans and the correct name species name is *Makaira nigricans*.

As a result, standardized reporting codes and tables are being updated in March 2004 to reflect this knowledge.

Submitted by: Michael G. Hinton

But a Catfish by Any Other Name is ...Not?

The ‘Free Trade’ Fix Is In – Editorial, New York Times

The United States government has just added a final flourish of hypocrisy to its efforts to crush the Vietnamese catfish industry under a mountain of protectionism. The Vietnamese, after doing well enough to capture a fair share of the American market, have been declared trade violators deserving permanent, prohibitive tariffs by the United States International Trade Commission.

The case against the Vietnamese was brutally rigged by American fishing and political interests. It stands as an appalling demonstration to striving commercial nations that all the talk of globalization has not reined in the old power politics of marketers in the United States, Europe and Japan. Their thumbs remain all over the scales of free trade.

No convincing evidence was presented that Vietnam is dumping its fish on the American market at prices below cost. To the contrary, a competitive edge was clearly won by hundreds of thousands of Vietnamese fishermen who were encouraged by the United States itself to set aside old wartime enmities and enter the emerging world market. The campaign that threatens to ruin them is rooted in myopic greed and blatant xenophobia. In one Orwellian tactic, labels for the fillets imported from Vietnam – genuine, obvious catfish – were denied the use of that very word in our markets by a well-timed amendment slipped into a Congressional appropriations bill.

Thus, the Vietnamese catfish can be called only “basa” or “tra” in this country. And they will also be saddled with punitive tariffs. The next time an American delegation sets off to preach the dogma of free trade abroad, poor nations would be within their rights to thumb their noses. Meanwhile, diners in search of egalitarian fare should consider demanding basa and tra by name as a rebuff to this nation’s protectionist bottom feeders.

Submitted by: Andy Jahn

Gibbs Award for Excellence in Systematic Ichthyology

Nominations are solicited by the American Society of Ichthyologists and Herpetologists (ASIH) for the Robert H. Gibbs, Jr., Memorial Award for Excellence in Systematic Ichthyology. The Gibbs Award is presented annually in the memory of Robert H. Gibbs, Jr., Distinguished Fellow of the American Society of Ichthyologists and Herpetologists, and is made possible by an endowment fund established by the Society from a gift provided by Frigga Gibbs, Bob's wife. It is given for an outstanding body of published work in systematic ichthyology to a citizen of a western hemisphere nation who has not been a previous recipient and consists of a plaque and a cash sum based on available income accrued to the endowed principal. The recipient, selected by committee, is recognized at the annual meeting of the Society.

Nominations may be made by any ichthyologist, including self nominations, and should include the nominee's curriculum vitae along with details of the nominee's specific contributions and their impacts on systematic ichthyology. Nominations are effective for three years and should be submitted by 1 March 2004 in order for the nominee to be eligible for the 2004 award. Three copies of the materials for each nominee should be sent to the Chairman of the 2004 Gibbs Award Committee, Dr. Henry L. Bart, Jr. (Tulane University Museum of Natural History, Belle Chasse, Louisiana 70037; E-mail: hank@museum.tulane.edu), or to the Secretary of ASIH, Dr. Maureen A. Donnelly (Biological Sciences – OE 167, Florida International University, University Park, Miami, Florida 33199; E-mail: Donnelly@fiu.edu).

In July 2003 at the annual meeting of ASIH in Manaus, Amazonas, Brazil, the award for 2003 was presented to Dr. G. David Johnson, Division of Fishes, National Museum of Natural History, Smithsonian Institution, Washington, D.C., for his numerous contributions clarifying the relationships of bony fishes.

Submitted by: William D. Anderson

Not By a Member – But Well Reviewed New Book

New Book, The Crimson Broadbill – Commercial Swordfishing the NW Atlantic, Puts Personal Spin On Findings of Pew Charitable Trust Fund's International Fisheries Study

Written by a marine biologist and physician, The Crimson Broadbill – Commercial Swordfishing the NW Atlantic is a personal sea story that describes the fine balance between conservation and commerce. From the history of the fishery to its current state, the reasons for our ocean's diminishing resources are explored, with suggestions as to what consumers and constituents alike can do to help protect our endangered billfish, tuna and sharks.

"The Crimson Broadbill is the most interesting combination of autobiography and sea story that I've ever encountered! It offers a thoughtful discourse of the plight of sharks, whales, and particularly swordfish, resulting from man's predation. Dr. Armbruster's treatments are well-reasoned and it is difficult to argue with a scientist who has actually done his sea time!" Dr. Robert B. Abel, President Emeritus, New Jersey Marine Sciences Consortium Founding Director, National Sea Grant Program

Visit this book at www.xlibris.com/thecrimsonbroadbill.html. Available online at Amazon, Borders, Barnes & Noble and from local bookstores. Contact: Thomas Armbruster BS, MD, Phone: 732-291-7762; E-Mail: tcarmbruster321@msn.com

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Gulf Shrimp: I

Marine Conservation Network Press Release Provides Incorrect Statements on Gulf Fisheries

Tampa, Florida July 11, 2003 – The Marine Conservation Network (MCN), a consortium of environmental groups, distributed a news release titled "Horrors of the Deep" in which they find fault with management of fisheries for each region of the country. In their discussion of the Gulf of Mexico Fisheries there are incorrect statements according to Wayne Swingle, Executive Director of the Gulf of Mexico Fishery Management Council based in Tampa, Florida. The first of these incorrect statements is titled Mismanagement Scary Fact which states: "Disaster relief, necessitated by poor management (underlined for emphasis) and international competition, to the shrimp industry in the Gulf of Mexico has cost American taxpayers \$35 million." The first incorrect statement that says the shrimp stocks are mismanaged is definitely a false statement. None of the three stocks (brown, white, and pink) of shrimp has been overfished in the last 40 years according to scientific data presented by the National Marine Fisheries Service each year. These stocks, which are estuarine dependent, are jointly managed by the states and the Gulf Council.

Dr. Richard Leard, the Council's Chief Scientists, pointed out that the Gulf shrimp industry is this nation's single most valuable fishery with a 10-year (1991-2000) average annual landings of 176 million pounds (total weight) valued to the fishermen at approximately \$492 million. Because most of the shrimp are consumed in restaurants, the annual value to the nation's gross National Product (GNP) is many times greater than the landed value.

The reason Congress granted disaster relief to the shrimp industry in the Gulf was that the U.S. market was flooded by foreign shrimp, principally raised in ponds, which depressed the prices paid to domestic fishermen. Mr. Swingle indicated that part of this appeared to be dumping of shrimp found unacceptable in the European Union market because antibiotics were used in culturing these shrimp. He also pointed out that the MCN press release incorrectly reported Gulf fishermen were granted \$35 million, whereas the correct figure was \$17 million.

Press Release: Gulf of Mexico Fishery Management Council

Gulf Shrimp: II

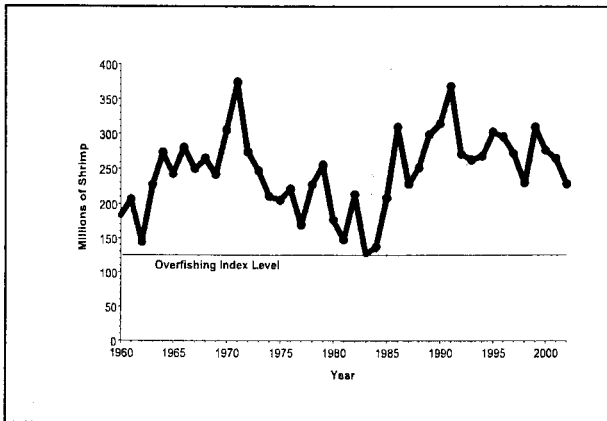


Figure 1. Brown shrimp (*Farfantepenaeus aztecus*) parent stock levels over the past 43 years.

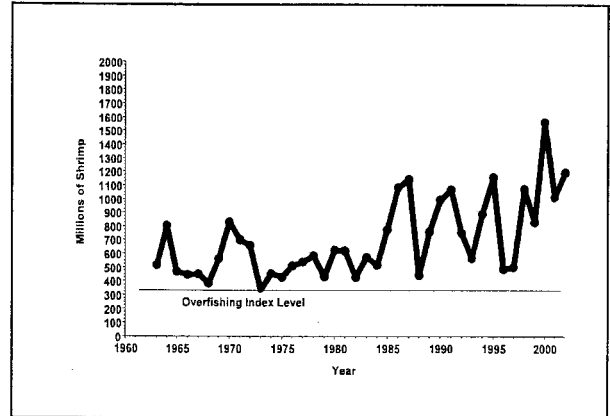


Figure 2. White shrimp (*Litopenaeus setiferous*) parent stock levels over the past 40 years.

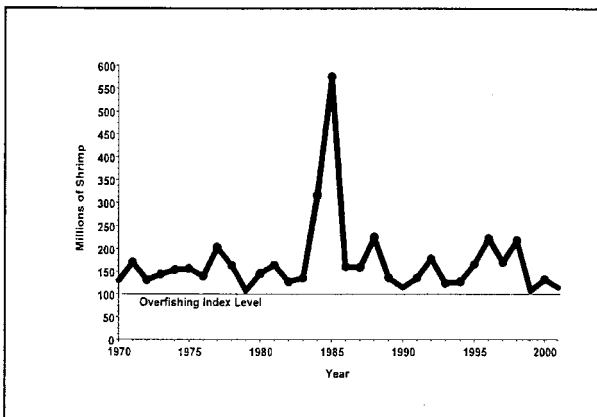


Figure 3. Pink shrimp (*Farfantepenaeus duorarum*) parent stock levels over the past 33 years.

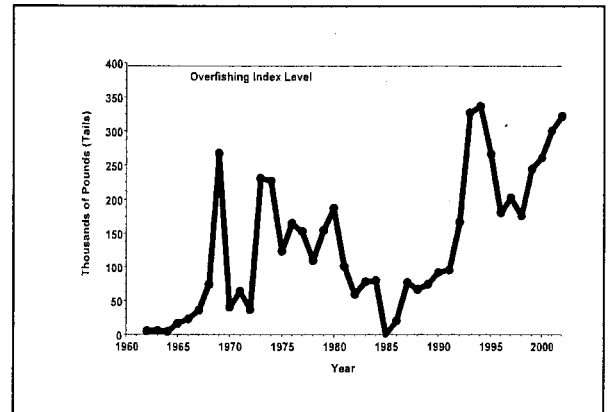


Figure 4. Royal red shrimp (*Hymenopenaeus robustus*) landing levels of the past 43 years.

From: Gulf Fishery News 25(4), July-August 2003

Attorneys Jaw over Jaws! Third Suit to Protect Sharks

The National Marine Fisheries Service simply can't – or won't – get it right when it comes to managing the catching of large coastal sharks in the Atlantic and the Gulf of Mexico. The agency has known at least since 1993 that the large sharks have been seriously overfished. Indeed, the agency reduced quotas in 1997 and 1999, but when industry groups sued, NMFS entered a settlement agreement that resulted in the agency's issuing emergency quotas (in this case, the supposed emergency was threatening the profits of the industry) that have kept quotas perilously high. The latest round of litigation, brought by David Guest and Alikei Moncrief on behalf of the National Audubon Society and The Ocean Conservancy, challenges NMFS's decision to increase the commercial quotas for sharks by 33 percent and to suspend management measures, such as minimum size regulations, that would protect the sharks from being overfished.

From: In Brief, Spring-Summer, 2003

Freedom to Fish – License to Kill?

In coastal states around the nation, some recreational fishing groups are lobbying hard to pass “Freedom to Fish” laws. The name conjures up images of Huck Finn lazily casting for catfish on the Mississippi. The reality is different. These bills, backed by the multi-billion-dollar sportsfishing industry, would exempt recreational anglers from fishing restrictions in marine protected areas unless it can be “proven” that they are contributing significantly to declines in fish stocks. Such proof is virtually impossible to establish, due to the widespread lack of data and the influence of factors such as commercial fishing and pollution. Some states don’t even require saltwater fishing licenses. “Establishing protected areas is complex and should be done through an inclusive process involving scientists and anglers – not by legislative fiat,” says David Festa, our Oceans program director.

California wisely rejected one such bill, but similar bills have been gaining elsewhere, most notably in New Jersey. “Many recreational fishermen argue, ‘I’m only one boat and I have no impact,’” says John Jolley, president of the 70-year-old West Palm Beach Fishing Club and AIFRB Member. “We have millions of people. Collectively we have a significant impact.

Environmental Defense is working with fishermen – both commercial and recreational – to find common ground. “Successful marine reserves can be designed with the interests of recreational fishermen in mind,” says Festa. “We need to err on the side of the resource,” adds Jolley. “We need to give the fish a break.”

*From: Solutions (Environmental Defense) 34(4),
July-August 2003*

Fishing Moratorium Needed to Protect Alaskan Corals

The recent discovery of at least 100 species of deepwater corals and sponges in Alaska – some possibly never before seen – led The Ocean Conservancy to ask the North Pacific Fishery Management Council to immediately halt bottom trawling in waters throughout the Aleutian Islands to protect these species, as well as depleted rockfish.

Bottom trawlers have been bringing hundreds of tons of coral to the surface in recent years. Once destroyed, these massive and slow growing colonies take hundreds to thousands of years to recover. Several species of long-lived rockfish that depend on the Aleutian coral forests for protection and shelter are also threatened by habitat destruction. Further damage to these corals could also compromise the fishing industry. Consequently, The Ocean Conservancy contends that a moratorium on bottom trawling is necessary to prevent further damage while managers map coral and develop suitable protection strategies. The Conservancy is also requesting immediate reductions in catch quotas to help stem overfishing and help fish populations recover. “In addition to preserving these newly discovered corals, we’re trying to avert the same sort of emergency management response that accompanied the collapse of the West Coast rockfish,” says Whit Sheard, Fish Conservation Program Manager for The Ocean Conservancy in Alaska. “After years of localized overfishing, these rockfish need strong protection to survive and rebuild, for their sake as well as for the future of the fisheries.”

From: Blue Planet, Winter-Spring, 2003

Bass Fishermen Trying to Save Favorite Spots in Florida Everglades

Some dedicated bass fishermen are fighting to protect their fishing holes in the Florida Everglades, and appear to be making progress. In 2001 at a public hearing, the U.S. Army Corps of Engineers and the South Florida Water Management District unveiled plans for the Everglades Restoration that included the backfilling of many canals considered some of the best bass fishing waters in Florida. As a result of that meeting, a group of fishermen formed SAFER (South Florida Anglers for Everglades Restoration). Their goal is to protect the rights of all recreational fishermen and maintain the viability of the Everglades canal system as the great fishery it has been for decades. At the meeting, the agencies in charge of the restoration of Everglades National Park apparently were not aware that people fished in the water conservation areas of the park. Two years later, members of SAFER have gained attention of project managers regarding the benefits of leaving the canals open. As a result, a master plan was put in place to study the impacts of Everglades restoration on activities such as fishing, biking, bird-watching, boating, camping, hiking, and hunting. SAFER isn’t claiming victory yet, but things are looking better for anglers.

From: International Angler 65(4), July-August, 2003

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