

QUARTERLY NEWSLETTER



Summer 1991 - Post Meeting

LEWES, DELAWARE

83rd Annual NSA Meeting - Portland Maine

The 83rd Annual NSA Meeting was held June 23-27, 1991 at the Portland Sonesta Hotel in Portland, Maine. Program Chair Arnie Eversole reported that there were a total of 142 oral and poster presentations, the second highest number for the last 10 years! New additions to the Program this year included 2 video sessions and a full-day Lobster Biology and Ecology Workshop. This year's Program also included a large Trade Show Exhibit organized by Carter Newell. Thanks to all who helped to organize a very successful meeting!

As usual, Ken Chew organized another fantastic Chinese Dinner for NSA members, this time at Hu Shang's Restaurant on Exchange Street. The Sonesta's Eastland Ballroom was the scene for a Tuesday evening Maine Lobster Bake (complete with bibs) and dinner entertainment was provided by Carter and Company - yes, our own Carter Newell and his fellow musicians. The fine food and excellent entertainment made for a thoroughly enjoyable evening. Dinners were not the only gastronomic experiences this year - several Breakfast Meetings were scheduled for the Editorial Board, NSA Past-Presidents and NSA Canadian members.

The Wednesday Annual Business Luncheon included an address by Dr. John Patrick Jordan, U.S. Department of Agriculture, on the importance of aquaculture in the USDA National Research Initiative (more information on this in the Fall 1991 Newsletter). The Thurlow C. Nelson Award for best student paper was given to several individuals this year: Lynda Fawcett, University of Delaware, for her paper entitled "Chemotaxis of Mercenaria mercenaria hemocytes to bacteria" and Jennifer Bates, Memorial University, St. John's, Newfoundland, for her poster entitled "Morphological and genetic variation of Mytilus edulis in Newfoundland". Two students were awarded Honorable Mention: Clark Craddock, Rutgers University, for her presentation entitled "Electrophoretic comparisons of deep-sea cold-water seep mussels in the Gulf of Mexico" and Eugene Olmi, Virginia Institute of Marine Science, College of William and Mary, for his presentation entitled "Immigration of blue crab megalopae in the York River, Virginia: patterns and processes". There were a total of 36 student presentations at the Portland meeting and presentations were evaluated by Nelson Award Committee members Susan Ford (Chair), Bruce Barber, Mike Castagna, Steve Fegley, Lew Incze, Islay Marsden, Bud Tripp and Evan Ward. Congratulations to Lynda, Jennifer, Clark and Eugene for their well-prepared and well-presented papers. Student Endowment Fund Travel Awards were given to seven students this year: Andy Mount, Clemson University; Lynda Fawcett, University of

Delaware, Dave Bushek, Rutgers University; Francisco Borrero, SUNY-Stony Brook; Stephanie Boyles, Texas A & M, College Station; Karen Chaput, University of New Hampshire; and Yaping Hu, Rutgers University. Congratulations to all award winners!

Summary of the 1991 Annual Business Meeting

The 1991 Business Meeting and Awards Luncheon was held on Wednesday, June 26. Outgoing President Vic Kennedy thanked those members who served the Association well during the past year, especially all who helped organize the Portland meeting. Secretary-Treasurer Tom Soniat presented the financial report with a summary of the Association's accounts. Audit-Budget-Finance Committee Chair George Abbe concurred with Tom's report and informed the members that Tom would remain as Treasurer until the end of the summer at which time the books would be closed and passed to newly-elected Treasurer Steve Tettelbach.

Resolutions Committee Chair Monica Bricelj announced a resolution recognizing Sandy Shumway for her contributions to NSA above and beyond the call for duty, an recognition well-deserved by Sandy. Honorary Member Awards were presented to Carl Sindermann and Aaron Rosenfield in recognition of their distinguished careers and scientific contributions in shellfisheries biology. David H. Wallace Memorial Awards were presented to Neil Bourne and Herb Hidu in recognition of their service in promoting interaction between shellfisheries scientists and industry. Carl, Aaron and Herb were present to receive their awards and extended their thanks and appreciation to NSA; Sandy Shumway will present Neil's to him at the NSA Pacific Coast Section meeting in September.

President Kennedy then passed the gavel to President-Elect Sandy Shumway. President Shumway thanked Vic for all his contributions to NSA and announced her goals for the coming year. This marks an historic occasion for NSA since Sandy is the first-ever female President of the Associationand in honor of this occasion Sandy promptly announced that her next money-making venture for NSA would be an NSA Shellfish Cookbook (more about this in an upcoming Newsletter). Newly-elected EXCOM officers are: Ralph Elston, President-Elect; John Kraeuter, Vice-President; Tom Soniat, Secretary; Steve Tettelbach, Treasurer; and Jeff Kassner, 1991-1994 Member-at-Large. Committee appointments for 1991-92 are: (continued on page 2)

President's Message

The National Shellfisheries Association has benefitted over the years from strong leadership and a commitment from its membership to continually improve the field of shellfish biology. Many members have given freely of their usually non-existent free time to manage the affairs of the NSA and to organize the annual meetings. I plan to see that this trend continues and to that end have set goals for my term as President:

- 1) Establishment of a student organization within NSA. There has been a growing number of capable and interested students within NSA and I believe the time has come to organize a forum for graduate students and post-doctoral fellows to voice their concerns and ideas related to NSA and to their futures. This committee will provide an opportunity for newer members to become involved in with the Association and to interact with their peers through discussions, newsletter columns and an annual meeting to be held during the NSA annual meeting. It is anticipated that the student group will have a non-voting representative at the EXCOM meeting which will provide experience for our future officers. Our continued success depends on the nurturing of our future leaders and I hope you will all join with me in continuing to support student efforts.
- 2) Organization of our historical records. The NSA has grown from a small group of interested parties to a professional society of international stature. During these past 83 years, there have been a number of changes leading to our current position. The historical records of the Association (such as they are) are a shambles. Scott Siddall has generously agreed to assume the position of Historian and try to make some sense of our past. Some records do exist, but I am asking all of you to look through your files -- and that applies especially to our senior citizens -- and see if you have any information that might be useful to Scott in his endeavors. It is assumed that we will be able to publish a history of the Association within the next year and any help you can offer will be greatly appreciated.
- 3) Sponsorship of other scientists/laboratories. There are many laboratories in the world that are considerably less fortunate than yours (really!!). I frequently meet scientists who ask if they can receive the Journal of Shellfish Research and hasten to add that they do not have any funds to cover the cost. I would like to initiate a program whereby our members can sponsor a scientist or laboratory and thus enable these people to stay up-to-date with current literature. I already have several names in need of sponsors and have started the ball rolling by personally sponsoring Dr. Alexander Pudovkin from the Institute for Marine Biology in Vladivostok, USSR. The following would also like to receive the Journal: Matt Murphy, Sherkin Island Marine Laboratory; Fusui Zhang, Institute of Oceanology, China; and the Asian Fisheries Society, Indian Branch. If you would like to sponsor any of these organizations, or know of someone who would benefit from receiving the Journal, please let me know. It costs so little, please consider it.

- 4) There is always talk of increasing the membership. Our membership is quite healthy, but I would like to strengthen our ties with the PCOGA and the West Coast Chapter of NSA. I will be attending the Fall meeting of these groups and encourage any other members to join me if at all possible. I would also like to see the West Coast Chapter take a more active role in the NSA annual meetings. Any suggestions on this topic will be most welcome.
- 5) Encourage active membership. The key word here is active. The Association will only grow and prosper through the efforts of the membership and that includes you. Please communicate your ideas, concerns, complaints and suggestions to me or any of the other officers of the Association. Our addresses and phone numbers are on the back cover of the newsletter and we welcome your input. If you would like to serve on a committee, please let me know immediately and I'll be more than glad to put you to work!
- 6) Last, but by no means least, I thought it appropriate to mark the occasion of being your first female president with a suitable project. I will soon be soliciting entries for a National Shellfisheries Association Cookbook. I make no promises as to when it will be completed, but I invite you to send me your favorite shellfish recipes. I hope we will be able to sell these and invest the profits in the Student Endowment Fund. Who knows shellfish better than us??

I would also like to take this opportunity to thank the members for the support they have given me, especially during the past year, and for the gifts I received during the past meeting. It's all greatly appreciated. I sincerely hope that, with all your help, I will be able to leave office knowing that I have left the Association in even better condition than I found it. Thank you.

Sandy Shumway

Summary (continued from page 1)

Audit-Budget-Finance: George Abbe (Chair), Greg Tracey and Gary Wikfors

Awards: Roger Mann (Chair), Ken Chew, Neil Bourne and Carl Sindermann

Arrangements: Vic Kennedy (Chair)

Resolutions: Jeff Kassner (Chair)

Membership: Mike Crosby and Dot Leonard (Co-Chairs), Bruce Barber, Catherine Enright, Carter Newell, John Pearce and Joedy Gray.

Publications: Mike Castagna (Chair), Bruce Barber, Mel Carriker, Karolyn Mueller Hansen and Sandy Shumway

Endowment/Student Awards: Vic Burrell (Chair), Dianne Brousseau, Jon Grant and John Manzi

Elections: Vic Kennedy (Chair), Sandy Shumway and Ralph Elston

President's: Vic Kennedy (Chair) and all living past-Presidents

Program: John Kraeuter (Chair)

Site-Selection (1994): Ralph Elston (Chair), Sandy Shumway and John Kraeuter

Newsletter Editor: Karolyn Mueller Hansen

CONSTITUTION of the

NATIONAL SHELLFISHERIES ASSOCIATION, INC.

(A Corporation Not for Profit) Approved November 13, 1990

ARTICLE I. NAME AND ADDRESS

The organization shall be known as the National Shellfisheries Association, Inc., hereinafter referred to as the Association or NSA.

The official permanent address of the NSA shall be: National Shellfisheries Association, Inc.

National Marine Fisheries Service Biological Laboratory

Oxford, MD 21654 USA

ARTICLE II. OBJECTIVES AND PURPOSES

The National Shellfisheries Association is organized as a non-profit society. The objectives and purposes of the Association shall be:

- Section 1. To encourage research on molluscs, crustaceans, and associated organisms with emphasis on species of economic importance known as "shellfish".
- Section 2. To gather and disseminate scientific and technical information on shellfish.
- Section 3. To promote and advance shellfisheries research and the application of results to the shellfish industry.
- Section 4. To hold annual meetings for presentation, exchange, and discussion of information on scientific and professional aspects of shellfish research and management.

ARTICLE III. MEMBERSHIP

Section 1. Membership in the NSA shall be open to all individuals who actively support the objectives and purposes of the Association

ARTICLE IV. TERMS OF EXISTENCE

Section 1. This corporation is to exist perpetually.

ARTICLE V. OFFICERS

- Section 1. The officers of the Association shall be a President, a President-Elect, a Vice President, a Secretary, and a Treasurer, elected to perform the usual duties of their respective offices.
- Section 2. The signing officers of the Association are the President, the President-Elect, and the Treasurer or their appointees.
- Section 3. All officers shall be elected for one year, or until the next regular annual meeting. The President-Elect shall upon completion of the term, accede to the Presidency. Therefore, elections shall be for President-Elect, Vice President, Secretary and Treasurer. The President Elect will be installed as President at the opening of New Business of each regular annual business meeting. No officers, except for the Secretary and Treasurer, may succeed themselves.
- Section 4. Nomination for office shall be made by an Elections Committee appointed by the President. All persons nominated by this committee shall be members in good standing and eligible to hold office in the Association. The Elections Committee shall present the list of consenting nominees to the Secretary, who shall prepare a mail ballot to be sent to the membership at least sixty (60) calendar days prior to the annual meeting. The ballot shall permit write-in votes for each office. Ballots must be returned to the President Elect fourteen (14) calendar days before the annual meeting, and they shall be audited as the Executive Committee directs.
- Section 5. A simple majority of the votes received by the President-Elect fourteen (14) days prior to the annual meeting of the Association shall be necessary for the election of officers and the members of the Executive Committee. Elected officers other than the President-Elect take office at the end of each annual business meeting.
- Section 6. In the event that any officer other than the President-Elect resigns or otherwise leaves a position vacant, the Executive Committee shall, by a simple majority vote of committee members present at a properly constituted meeting, at which business may be conducted, appoint a replacement to fill the remainder of the term. Any vacancy in the office of the President-Elect must be filled through membership ballot.

Section 7. No elected officer may receive any compensation for services rendered. Certain travel expenses may be defrayed when authorized by the President with the concurrence of the Treasurer. Clerical and other operational funds may be paid by the Treasurer when so authorized by the President.

ARTICLE VI. EXECUTIVE COMMITTEE

- Section 1. The Executive Committee shall consist of the elected officers, the immediate past-President, the Chairperson of the Pacific Coast Section, the Editor of the Journal of Shellfish Research (JSR), formerly known as Proceedings, and three (3) persons elected by the Association to serve as Members-at-Large for a term of three (3) years or until their successors are elected. Each Member-at-Large shall not be eligible for re-election to the same office within a period of three (3) years after their term of office has expired.
- Section 2. The Executive Committee shall manage the business and the affairs of the Association, subject to the provisions of the Constitution and By-Laws. A quorum of the Executive Committee consists of a simple majority of its members. A properly constituted meeting of the committee is any meeting in which all of the members have been notified in advance and of which a simple majority of all members have agreed to the meeting. All decisions of the Executive Committee shall be by a simple majority vote of the quorum.
- Section 3. At each Executive Committee meeting prior to the annual meeting the President-Elect with coordination of the Treasurer shall submit for Executive Committee approval a proposed budget for the ensuing calendar year.
- Section 4. The Executive Committee shall approve budgets, approve appointments, present proposals, and describe other activities that may require discussion and approval by the membership. The Secretary or a duly appointed member of the Association shall keep minutes of Committee meetings and deposit copies with the Secretary. Minutes shall be open to members or sent to them.

ARTICLE VIII. BY AWS

Section 1. The structure and function of the National Shellfisheries Association within the context of the Constitution shall be described in the Bylaws. The Executive Committee of the Association may provide such Bylaws for the conduct of its business and the carrying out of its purpose as they may deem necessary from time to time. The Bylaws can be amended by a two-thirds (2/3) majority of the Executive Committee.

ARTICLE VIII. AMENDMENTS

- Section 1. The Constitution, after adoption by a 2/3 majority of the voting membership, shall supersede all existing Constitutions and Bylaws, and will take effect immediately.
- Section 2. The Constitution may be altered or amended on recommendation of the Executive Committee, by a 2/3 majority of the voting membership, by a mail ballot, provided the membership shall receive written notice of such amendments at least sixty (60) calendar days prior to the deadline for voting. Ballots shall be collected and counted by the Secretary and validated by the President within twenty (20) calendar days after the voting deadline.

ARTICLE IX. ACQUISITIONS

Section 1. In order to promote the purposes of this corporation, it may acquire property by grant, gift, purchase, devise or bequest, and hold and dispose of such property as the Association shall require for the benefit of its members and not pecuniary profit.

ARTICLE X. DISTRIBUTION OF ASSETS

Section 1. In the event of dissolution, any assets of the National Shellfisheries Association shall be distributed to a non-profit fund, foundation or corporate organization operated exclusively for the purpose as specified in Section 501 (C) (3) of the United States Internal Revenue Code. The fund, foundation, or corporate organization to which the National Shellfisheries Association assets will be distributed shall be selected by the National Shellfisheries Association Executive Committee at its last meeting.

Audit-Budget-Finance Update

Total revenues for the 1989-90 fiscal year (October 1, 1989 to September 30, 1990) were \$80,504.97, and expenses totalled \$75,945.12 for a net gain of \$4,559.85. This was far better than our loss of \$8,307.42 during the 1988-89 fiscal year even though that loss was associated with production of four issues of JSR. Administrative revenues were \$24,764.00 and expenses were \$2865.02 for a gain of \$21898.98. Publication revenues totalled \$23,188.70 and expenses were \$52,441.33 for a net loss of \$29,252.63. Our Williamsburg meeting brought in revenues of \$32,552.27 and had associated expenses of \$20,638.77 for a gain of \$11,913.50. We ended the 89-90 fiscal year with a balance of \$10,989.46, compared to \$6429.61 at the end of the 1988-89 year. NSA is now in the best financial position it has been in for many years, although we still have only a small cushion to fall back on. This improving position is due in large part to the increasing number of members who have supported NSA by prompt dues payment, by payment of JSR page charges, and by attending the annual meetings. With a gain from the 1991 meeting in Portland, Maine, and by careful management of the JSR, we should be able to enlarge our present balance by the end of the 1990-91 fiscal year.

The proposed budget for the 1991-92 fiscal year, which begins 1 October 1991, projects a gain of \$19,720 in administrative costs, a loss of \$26,000 in publication costs, and a gain of \$13,900 associated with the Aquaculture '92 meeting in Orlando, Florida. If these revenues and expenses were realized it would increase the Association's balance by \$7620.

Tom Soniat will pass the job of Treasurer over to Steve Tettelbach at the end of the present fiscal year. At that time A-B-F will conduct a detailed review of the NSA books.

Steve Tettelbach will be out of the country for part of January 1992, so look for him to send out 1992 dues notices as early as December 1991. This way NSA dues can still be collected early in 1992, and we can stay in the black.

I would like to personally thank Drs. Bruce Barber and Michael Crosby for their help with this committee during the past year.

George Abbe, Chair, A-B-F Committee

The Canadian Connection

While most delegates at the Portland meeting started the morning of July 26 at a slow pace, an intrepid group of eighteen Canadian delegates, along with honourary Canadian Sandy Shumway, convened for a Sunrise Breakfast (well, 7:00 am). The group was diverse, with representation from Canadian provincial and federal governments, university researchers and graduate students. The Breakfast evolved out of discussions between Neil Bourne, Shawn Robinson and Joan Kean-Howie at the 1990 NSA meeting over a perceived need to enhance communication between Canadian shellfisheries researchers and to define a clearer identity within NSA for the Canadian membership.

At the Breakfast the merits of developing an informal Canadian shellfisheries workshop were discussed. Travel restrictions facing government researchers reduce opportunities for attending NSA and other international meetings, yet there remains a need to exchange research news. A regional workshop could facilitate government-university research linkages, while promoting student participation and exposure to employment opportunities. It was noted that a new workshop may not attract regular participation depending on timing in relation to established meetings.

Another medium for information exchange, shellfisheries electronic bulletin board, was discussed and received considerable support. As there are moves within NSA itself to establish an electronic network, it was decided not to pursue this option at the present time in favour of -- yes -- you guessed it..."The Canadian Connection".

Peter Lawton and Shawn Robinson agreed to get this new column off the ground. In subsequent newsletters we will be introducing NSA readers to a small yet vibrant research community within the Association. We will mainly be soliciting material from and for Canadian researchers, but welcome commentary or questions from NSA colleagues on Canadian shellfisheries issues, Material should be sent to: Peter Lawton or Shawn Robinson, The Biological Station, St. Andrews, New Brunswick, E0G 2X0, CANADA Phone (506) 529-8854, FAX (506) 529-4274. We look forward to receiving your contributions.

Call for Pre-Proposals

The National Estuarine Research Reserve System (NERRS) is administered by the Sanctuaries and Reserves Division (SRD) of NOAA. The NERRS sites consist of carefully selected areas of the U.S. which are designated, preserved, and managed for research and educational purposes. The uniqueness of each NERRS site lies in its suitability for supporting a wide range of beneficial uses of ecological, economic, recreational and aesthetic value which are dependent upon maintenance of a healthy ecosystem. Each reserve has been designed to be large enough and protected well enough to ensure its effectiveness as a conservation unit and as a site for long-term research. Since all of the reserves are part of a national system, they collectively provide a unique opportunity to address research questions and estuarine management issues of national significance. Nineteen NERRS sites have been established and include sites on the Atlantic, Gulf and Pacific Coasts, as well as sites in Hawaii and Puerto Rico.

Funds are available on a competitive basis to any state, university or qualified public or private individual to conduct research within the NERRS. Successfully funded projects usually are between \$10,000 and \$50,000. Federal funds requested must be matched by at least 30% of the total cost of the project. Pre-proposals for the upcoming funding cycle must be postmarked no later than September 16, 1991. Notification regarding the disposition of the pre-proposals will be issued on or about November 8, 1991. Investigators who have then been requested to submit full-length proposals must submit them by January 6, 1992. For further information please contact:

Dr. Michael P. Crosby Chief Scientist and National Reserves Coordinator Sanctuaries and Reserves Division/NOAA 1825 Connecticut Avenue, NW, Suite 714 Washington, DC 20235 Phone: (202) 606-4126

Short Communications

National Zebra Mussel Tracking Program

The National Fisheries Research Center (NFRC) will begin incorporating information on the U.S. distribution and ecology of zebra mussels (Dreissena polymorpha) into their existing GIS database on nonindigenous aquatic species. Information on the distribution of established nonindigenous species is available to anyone upon request. Much of the data will be obtained from federal and state agencies already involved in the zebra mussel alert and monitoring system. NFRC is also interested in obtaining information from other individuals and agencies involved in zebra mussel research. An exotic species database form is available from NFRC at the address below; the minimum information required to be included in the database includes: the date of sighting; observer's name, address and business phone number; exact location of sighting (UTM coordinates if known); what was actually observed; how the observation was obtained. Please contact the Geographic Information Section of NFRC for further information and database forms.

U.S. Fish and Wildlife Service Geographic Information Section National Fisheries Research Center 7920 N.W. 71st Street Gainesville, FL 32606 Phone: 904-378-8181 FAX: 904-378-4956

Calling All Nelson Award Winners...

As mentioned in the President's Message (page 2) we are currently trying to assemble the records of the Association. Mel Carriker has recently compiled a list of Honorary Members, Life Members and David H. Wallace Award recipients, but we have yet to assemble a list of the Thurlow C. Nelson Award winners. We are asking for your assistance in compiling this list. If you are a Nelson Award recipient, or know of someone who has received the award, please forward your (their) name, year of award and title of presentation, if known, to Scott Siddall, Sandy Shumway or Karolyn Hansen (addresses on the back cover of the Newsletter). The completed list will be published as part of the history of the National Shellfisheries Association. Please take the time to look through your files and help us out!

New NSA Student Organization

At the 1991 Annual Meeting in Portland, ME, a student affiliate of NSA, to be known as the "Recruits", was formed. Our purpose is to voice the ideas and concerns of graduate students and post-doctoral fellows. The initial organizers include: Greg Shatkin, Department of Animal, Veterinary and Aquatic Sciences, University of Maine, Orono; Jay Parsons, DFO Biological Station, St. Andrews, New Brunswick, Canada; Maureen Krause, Department of Ecology and Evolution, SUNY, Stony Brook, NY; and Dave Bushek, Haskin Shellfish Research Laboratory, Port Norris, NJ.

A new column, entitled "Recruits Comer", will be appearing as a regular contribution in the NSA Quarterly Newsletter. We would like to have a column logo which incorporates the name "Recruits" in its design; the logo may also be used in the future as a T-shirt design. All students and post-docs are encouraged to design a logo and the designer of the winning logo will receive an NSA mug and lapel pin. Sharpen those pencils and start drawing - computer graphics will also be considered!

Our first goal is to compile a directory of all NSA student and post-doctoral members along with their academic affiliations and interests. Please provide the information as requested below at your earliest convenience. We look forward to your contributions and support - we need YOU to make this a viable organization. Thanks.

Greg Shatkin

"RECRUITS" INFORMATION REQUEST

Name Address/Affiliation Shellfisheries Interests

Are you willing to assist at the 1992 meeting in Orlando by:

______ selling pins and mugs
______ assisting in audio-visual presentations
______ helping with a "Recruits" annual mixer
_____ working at a "Recruits" pancake breakfast
Other suggestions:

Mail information to: Greg Shatkin, 327 Hitchner Hall, Department of Animal, Veterinary and Aquatic Sciences, University of Maine, Orono, Maine 04469, Phone: (207) 581-2781.

From the Newsletter Editor....

I would like to extend my thanks to all those who contributed articles and columns for this issue of the Newsletter. We now have several "regular" columns that will be appearing in each issue, but we still have plenty of room for occasional contributions so please feel free to submit material. I am particularly interested in receiving short Research News and Industry Updates contributions - articles should provide an overview of your research and/or techniques with a limit of about 500 words.

A goal for this year is to tap that large pool of energy out there....our student members. I will be actively organizing a committee of student Contributing Editors from around the country and I encourage any interested student to contact me at their earliest convenience.

Newsletter contributions may be submitted on disk (WordPerfect 4.2, 5.0 and 5.1), as hard copy, or by FAX. The deadlines for the next three issues of the Newsletter are September 15 an December 1, 1991 and February 20, 1992. Thanks, and I look forward to receiving your contributions.

Karolyn Mueller Hansen

Employment

Position Sought: Experienced Hatchery/Grow-out Manager (oysters and mussels) and Aquacultural Ecologist (Ph.D.) is seeking a challenging managerial or post-doctoral position. Please contact: George Trevelyan, 1041 Adella Avenue, Coronado, CA 92118, Phone: (619) 435-1618.

Position Available: Post-doctoral position (2-3 years) on Mechanisms Controlling Reproduction in Bivalves is available in the lab of Dr. Jeffrey Ram. Project is investigating the internal and external mechanisms controlling reproduction in the zebra mussel. Available September 1991-position will remain open until filled. Send C.V. and names of three references to: Dr. Jeffrey Ram, Department of Physiology, Wayne State University, Detroit, MI 48201 USA, Phone: 313-577-1558, FAX 313-577-5494.

Meetings /Courses

National Shellfisheries Association-Pacific Coast Section and the Pacific Coast Oyster Growers Association will hold their Joint Annual Meeting on September 12-14, 1991 at the Delta River Inn, Vancouver, BC (Phone: 604-278-1241). For further information please contact:

Dr. David Armstrong School of Fisheries WH-10 University of Washington Seattle, WA 98195 Phone: 206-543-6132 FAX: 206-685-3224

"Bivalve Culture in the Mid-Atlantic" is scheduled for October 18-19, 1991 in Chincoteague, VA. The conference is sponsored by the Sea Grant Marine Advisory Programs of the mid-Atlantic region and the Virginia Institute of Marine Science. For further information and registration materials please contact. Marine Advisory Services VIMS P.O. Box 1346 Gloucester Point, VA 23062 Phone: 804-642-7165

South Carolina Sea Grant Consortium is sponsoring a conference on "Introductions and Transfers of Marine Species: Achieving a Balance Between Economic Development and Resource Protection" scheduled for October 30-November 2, 1991 at the Marriott Hotel on Hilton Head Island, SC. For further information and registration materials please contact:

Rick DeVoe South Carolina Sea Grant Consortium

287 Meeting Street Charleston, SC 29401 Phone: 803-727-2078 FAX: 803-727-2080

The First National Containment Area Conference is to be held November 11-15, 1991 at the Radisson Resort of South Padre Island, TX. The conference will explore various aspects of the Containment Area Aquaculture Program. Sponsors include: U.S. Army Corps of Engineers, U.S. Army Engineer District, Galveston and U.S.A.E. Waterways Experiment Station. For further information and registration materials please contact:

Mr. Richard Coleman or Dr. David Nelson USAE Waterways Experiment Station

Environmental Laboratory 3909 Halls Ferry Road Vicksburg, MS 39180-0631 Phone: 601-634-3816 FAX: 601-634-4016

The Second International Zebra Mussel Research Conference (U.S. version) is scheduled for November 19-22, 1991 at the Genesee Plaza Holiday Inn, Rochester, NY. The conference is sponsored by the Great Lakes Sea Grant Network and hosted by New York Sea Grant. Advance registration is required. For registration materials please contact:

New York Sea Grant Hartwell Hall SUNY College at Brockport Brockport, NY 14420-2928 Attention: Zebra Mussel

Research '91

Phone: 716-395-2638 FAX: 716-395-2466

The Second International Zebra Mussel Conference (Canadian version) is scheduled for February 19-21, 1992 at the Westin Harbour Castle, Toronto, Ontario. The conference is sponsored by the Canadian Ministry of Natural Resources, Ministry of the Environment and Ontario Hydro. Abstract deadline is September 30, 1991. For further information please contact:

Zebra Mussel Coordinating Office

P.O. Box 5000 Maple, Ontario, Canada L6A 1S9 Phone: 416-832-7266

Call for Topics

The National Shellfisheries Association 84th Annual Meeting is scheduled for May 21-25, 1992 as part of Aquaculture '92, the triennial meeting of NSA, WAS and AFS-Fish Culture Section. Program Chair John Kraeuter has announced a call for topics for special sessions for the 1992 meeting. Each organization is tentatively scheduled for three days of two concurrent sessions each. Extra effort will be made to enhance poster presentations; special sessions have typically been organized as oral presentations but posters may also be organized as special sessions. Anyone interested in organizing a video, oral or poster session or in chairing a session is asked to contact John immediately. The deadline for special session topics is September 30, 1991. Selected session chairs will be notified in October 1991. Please send your ideas, suggestions and comments to:

Dr. John Kraeuter Haskin Shellfish Laboratory Rutgers University Box 8 Port Norris, New Jersey 08349

NSA MEMBERS' 30% DISCOUNT PROGRAM for Elsevier's "DEVELOPMENTS IN AQUACULTURE AND FISHERIES SCIENCE" Series

VOL.	Author	Title	List Price	Member Price			
1	Korringa	Farming Marine Organisms Low in the Food Chain (1976)	\$ 97.25	\$ 68.10			
2	Korringa	Farming the Cupped Oysters of the Genus Crassostrea (1976)	97.25	68.10			
3	Korringa	Farming the Flat Oysters of the Genus Ostrea (1976)	97.25	68.10			
4	Korringa	Farming Marine Fishes and Shrimps	97.25	68.10			
7	Lutz	Mussel Culture and Harvest: A North American Perspective (1980)	120.00	84.00			
9	Boyd	Water Quality Management for Pond Fish Culture (1982)	111.50	78.05			
13	Allen, et al.	Bioeconomics of Aquaculture (1984)	131.50	92.05			
16	Bird & Benson	Seaweed Cultivation for Renewable Resources (1987)	140.00	98.00			
17	Sindermann & Lightner	Disease Diagnosis and Control in North American Marine Aquaculture (1988)	120.00	84.00			
18	Saila, et al.	BASIC Fishery Science Programs (1988)	83.00	58.10			
19	Manzi & Castagna	Clam Mariculture in North America (1989)	128.75	90.15			
20	Huguenin & Colt	Design and Operating Guide for Aquaculture Seawater Systems (1989)	83.00	58.10			
21	Shumway	Scallops: Biology, Ecology and Aquaculture (1991)	171.50	120.05			
OTHER ELSEVIER BOOKS OF INTEREST:							
	Chapman Gall Gjedrem	Wet Coastal Ecosystems (1977) Genetics in Aquaculture II (1987) Genetics in Aquaculture III (1990)	137.25 143.00 125.75	96.10 100.10 88.00			
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