

# National Shellfisheries Association

## QUARTERLY NEWSLETTER



Winter 1993

Lewes, Delaware

### President's Message

The Portland 93 meeting continues to take shape and promises to have a broad range of subject matter represented by a diversity of participants. Please note that the meeting will follow our usual Sunday through Thursday format (May 30 to June 3, 1993).

Importantly, the Pacific Coast Section (PCS) of the NSA, under the Chairship of Carolyn Friedman, will be assisting in the organization of the Portland meeting. In fact, the PCS has elected to combine their usual annual meeting for 1993 with the Portland 1993 meeting. Their co-sponsorship and assistance in organizing the meeting is an important element of Portland 93's success (more on the PCS below).

We have solidified (and in fact, enhanced) the participation of the PacRim Shellfish Sanitation Workshop who will meet concurrently during a part of our meeting and attend some of our sessions. This participation was discussed in a recent meeting with PacRim Representative Jack Lilja, Anja Robinson (Portland 93 site coordinator) and myself. My hope is that PacRim's participation will bring us new members and focus for this important aspect of shellfisheries (thanks to Dot Leonard for this seminal idea).

We have prospective sponsorship on several sessions at Portland 93 from funding agencies. You can see the shape these sessions are taking in the report from Program Chair Tom Soniat in this issue of your Newsletter. The so-far favorable response to NSA's offer to provide sponsored sessions underlines the importance of our organization in the distillation of technical information needed to direct and focus public policy, and, the wide and positive recognition of the NSA in this role.

In addition to the strictly technical sessions at Portland 93, other activities for your and the association's benefit will include a Shellfish Master's Roundtable, student reception, the first NSA Auction, and Ken Chew's infamous Chinese dinner. Look for more details in the Program/Spring 1993 issue of the Newsletter. In view of our potential for recruiting new members at Portland 93, we also need to have a very effective membership booth.

Strengthening the ties between the NSA and the PCS is an objective I feel is extremely important. The Pacific Coast Section of NSA has historically had annual meetings in conjunction with the Pacific Coast Oyster Grower's Association (PCOGA), creating a useful and pleasant interaction between shellfish scientists and the west coast shellfish industry. The west coast of North America encompasses some extremely productive and important shellfish growing areas and natural resources and its importance to the NSA should not be underestimated. The PCS/PCOGA meetings have always managed to come off very well (due to the dedicated work by key participants), in spite of the relatively loosely organized nature of the PCS in the past. However, many of the participants in the PCS meetings are not members of the NSA. I would like to see these non-members receive the benefits of NSA membership and the consequent and mutual benefit to NSA of broadening its base. Carolyn Friedman (Chair) and Christine Hodgson (Vice-Chair) of the PCS are diligently working with the other officers and members to bring more internal organization to the PCS. We should encourage them in this effort and also to strengthen the PCS ties to the parent organization as a chapter of NSA, to the organizations' mutual benefits. As one item to implement this, I would like to see a regular section in the NSA Quarterly Newsletter on PCS activities. A greater level of organization of the PCS has extended significance to NSA as well - there may be interest in the formation of other chapters of NSA. NSA's effective encouragement of chapter formation, where a critical base for such exists, may become an increasingly important part of the parent organization and a consequence of our growing size and importance as an intellectual and managerial resource for shellfisheries.

As noted in my previous message, Charleston, SC is the meeting venue for the 1994 NSA annual meeting. Negotiations with the prospective hotel are underway. Rick DeVoe of the South Carolina Sea Grant Consortium has been actively assisting in these negotiations.

Please remember: review the candidate biographies for the 1993-94 NSA Executive Committee and send in your ballot by May 15, 1993, and be sure to make your plans for Portland 93 - see you there!



## Additional Annual Meeting Notes

As Ralph Elston mentioned in the President's Message (page 1), each and every NSA Annual Meeting runs smoothly due to the efforts of many members who have volunteered their time and skills. We can always use an additional hand, though, so please consider giving a few minutes of your time over the course of the meeting. Students: this is a GREAT way to become involved in your organization. Contact any officer, committee chair or staff member of NSA if you are interested in lending a hand (addresses on back cover of this Newsletter).

Sandy Shumway is still accepting donated material for the NSA Auction to be held as part of the 1993 NSA Annual Meeting in Portland, Oregon. We know that many of you are just itching to clean up your offices and labs but often times can't bear to toss out your shellfish memorabilia - well don't toss it out, just recycle it! Put it to good use and donate it for auction, all proceeds of which go to the NSA Student Endowment Fund. Please contact Sandy should you have any questions concerning the value of your collection.

In the true spirit of entrepreneurship, Sandy has come up with yet another idea for generating funds for the Student Endowment Fund - baseball caps! Of course, ours will not bear the insignia of baseball teams but will sport the name and logo of the National Shellfisheries Association. Caps will go on sale at the Portland meeting and will be available in a variety of colors ranging from respectable navy blue to wild neon - a veritable smorgasbord for the discriminating cap wearer/collector. These promise to be hot items so plan on getting yours during meeting registration!

In response to the overwhelming popularity of the lapel pins at Aquaculture '92, the NSA Recruits will be developing a description/order form listing availability and price of the various pins (e.g. shells, whales, wildlife). Look for the order form in the Program/Spring issue of the NSA Quarterly Newsletter. Again, all proceeds support the Student Endowment Fund.

Last, but by far not least, the NSA cookbook is slowly coming to fruition. If you haven't already sent your favorite recipes in, please jot them down on the Cookbook form supplied in the Fall/Call For Papers issue of the Newsletter and send them to Sandy Shumway as soon as possible! The cookbook should be available at the Portland, Oregon meeting.

## Annual Meeting Update

Program Chair Tom Soniat has assembled a tentative schedule for the 1993 NSA Annual Meeting to be held in Portland, OR. The Program/Spring 1993 issue of the NSA Quarterly Newsletter will provide complete program information, including presentation titles and times, as well as hotel and meeting registration information. You should receive the next issue sometime towards the end of March.

## TENTATIVE SCHEDULE

### 85th Annual Meeting

### Portland, Oregon

May 30 - June 3, 1993

#### *Sunday 30 May*

1-5pm EXCOM Meeting  
6:30-8:30pm President's Reception

#### *Monday 31 May*

8:30-11:45am Poster session set up  
Trade Show begins  
Shellfish Diseases  
Technical Session (TBA)  
Shellfish Education Panel  
1-5pm Technical Sessions (TBA)  
7pm Student Reception  
8pm NSA Auction

#### *Tuesday 1 June*

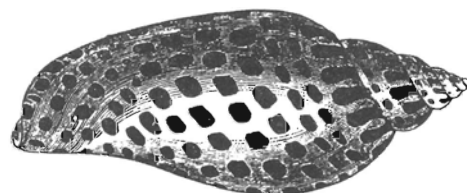
8:30-11:45am Toxic Plankton and Shellfisheries  
Technical Session (TBA)  
1-5pm Shellfish Sanitation  
Marine Invertebrate Management  
3-5pm Poster Session with Presenters

#### *Wednesday 2 June*

8:30-11:45am Shellfish Sanitation  
Non-Traditional Shellfisheries  
Nuisance Aquatic Species  
Workshop  
noon-12:50pm NSA Business Luncheon  
1-4pm Integrated Pest Management for  
Shellfisheries  
Alaskan Shellfisheries  
4-5pm Shellfish Master's Roundtable  
6pm Seafood Banquet

#### *Thursday 3 June*

8:30-11:45pm West Coast Aquaculture  
Tribal Shellfisheries  
Trade Show ends  
Poster Session ends



## Milford Shellfish Biology Seminar

Walter Blogoslawski of the National Marine Fisheries Service in Milford, CT has provided a short history of the now annual Milford Shellfish Biology Seminar.

"Between 22-24 February 1993, an anticipated 150-175 East Coast shellfish specialists from 16 states will meet in Milford, CT for what has become an annual "happening". Since its inception in the mid-1970's, the Seminar has evolved into one of the most important annual events for shellfish scientists, producers, and extension specialists.

The first Milford Shellfish Biology Seminar occurred in 1975 as a technical exchange between disease managers of the F.M. Flowers Oyster Company, Bluepoints Shellfish Company, and Long Island Oyster Farms. In attendance were nine industry representatives and six staff from the NMFS Milford Laboratory. The meeting was held in the library/conference room of the lab. In subsequent years, the forum broadened in technical scope and covered topics like algal rearing, shellfish genetics, and water quality. However, the basic format remained unchanged as essentially a technical exchange from government scientists to shellfish industry representatives.

In 1980, the scope of the Seminar expanded dramatically. Participants now include shellfish scientists from Sea Grant, universities, state and federal government as well as commercial aquaculturists and extension specialists. The annual meeting currently serves as a forum for shellfish biologists from various backgrounds to share ideas and methodologies in shellfish research. Exchanges are enlivened by the multidisciplinary attendance and have led to new approaches and research publications. The Seminar series has increasingly served as a springboard for national and international meetings such as the Shellfish Institute of North America (SINA), the National Shellfisheries Association (NSA), and the World Aquaculture Society (WAS).

Past seminars have focused on several important issues: reduction of shellfish habitat as an effect of coastal development and increased urbanization; adverse effects of sewage and industrial pollution on survival of larval shellfish; and development/modification of advanced mariculture techniques. Recent meetings have provided information on the adverse impacts of toxic blooms, the effective use of marinas for aquaculture under appropriate conditions and genetic methods to increase survivability of the Eastern American oyster, *Crassostrea virginica*, which is currently being devastated by the MSX parasite in the Chesapeake and Delaware Bays."

The next Milford Shellfish Biology Seminar is scheduled for February 22-24, 1993, and while the deadline for abstracts has passed there is still plenty of time to make arrangements to attend the meeting. For more information, please contact Walter Blogoslawski, 77 Bayshore Drive, Milford, CT 06460, Phone: (203) 783-4235, FAX (203) 783-4217.

## Recruits Corner

Happy New Year! I hope all of you got your abstracts to Tom Soniat on time and remembered to indicate your eligibility for the T.C. Nelson award. For those of you who are not familiar with this award, it is an award established to recognize outstanding student presentations, both in the oral and poster format.

The award is named after marine biologist Thurlow Christian Nelson who taught at Rutgers University from the mid-20's to mid-50's. He is noted for his work on the biology of the oyster and estuarine ecology, having published more than 125 papers on these and related topics.

Presentations are evaluated on the basis of scientific content, originality and presentation, with both verbal and visual components contributing to the overall score. Additionally, the students' ability to stay on schedule and answer questions is considered in the judging process. Posters are evaluated similarly with the exception of verbal presentation: text and figures are critiqued instead.

Plans for the Portland meeting are progressing nicely. A student mixer is being planned and we should have a day, time and place set for the next newsletter. Numerous fund raising activities to benefit the student endowment fund are being planned, and we need student volunteers to help sell pins, mugs, hats, etc. We would also like volunteers to help out at the registration desk as well as run slide projectors. If you are planning to attend the meetings and would be willing to help with any of the above just let one of the recruit organizers know (Dave Bushek or Marty Chintala at 609-785-0074, Mike Moyer at 813-893-9565, Jay Parsons at 506-529-8854, or Ami Wilbur at 302-645-4030 email address [acwilbur@ravel.udel.edu](mailto:acwilbur@ravel.udel.edu)).

Lastly, we are still a group in search of a logo. Any ideas and/or rough sketches can be sent to one of the organizers.

Hope to see y'all in Portland!

Ami Wilbur

## Reminder...

Treasurer Steve Tettelbach is sending out the NSA annual dues invoices (you may already have received yours). Should you not receive one by March 1993, please contact Steve to be sure your name and current mailing address are correct so you will continue to receive your copies of *Journal of Shellfish Research* and the *NSA Quarterly Newsletter*. Please pass this message along to any of your colleagues!

## Announcements

**Index to the *Proceedings of the National Shellfisheries Association*** Be on the lookout for your next issue of *JSR* as it should contain the Index compiled by Roger Mann and Mike Castagna. More information on availability in disk or hard copy format is forthcoming in the Program/Spring 1993 issue of the Newsletter.

**Elsevier Book List** We are in the process of updating the Elsevier/NSA Member Discount Program book list. If there are any books pertaining to shellfish biology/aquaculture/ecology that are published by Elsevier but not included on the current list, please send the titles of the books to Newsletter Editor Carolyn Mueller Hansen and we'll try to have them included on the revised discount list. The current list was published in the Summer and Fall 1992 issues of the newsletter. Remember, Elsevier offers NSA members a discount of 30% on selected titles!

**The Shu Foundation**, Redwood City, California wishes to buy books and other educational materials pertaining to the biology, reproduction and culture of aquatic species. All materials will be donated to Third World developing countries. The Foundation is particularly interested in materials which contain numerous illustrations of, for example, clams, geoducks and other shellfish. Please contact: Shu Foundation, 10 Woodleaf Avenue, Redwood City, CA 94061 USA. Phone (415) 369-9647, FAX (415) 365-6706.

**Newsletter Exchanges:** the NSA Quarterly Newsletter is attempting to expand its newsletter exchange list. If you know of a publication that would be interested in exchanging newsletters with our organization, please have them contact NSA Newsletter Editor Carolyn Mueller Hansen (address on back cover of this newsletter).

## Meetings/Courses

The *13th Annual Milford Shellfish Seminar* will be held February 22-24, 1993 at the Milford Howard Johnson Lodge, 1052 Boston Post Road, Milford, CT. This year's two-day program will primarily review juvenile oyster mortalities and algal toxin effects on cultured species. Contact Dr. Walter Blogoslawski for registration information - Phone (203) 783-4235.

**Third International Zebra Mussel Conference** will be held February 23-26, 1993 at the Westin Harbour Castle, Toronto, Ontario, Canada. For registration information please contact Elizabeth Muckle-Jeffs, Zebra Mussel Conference, 3317 Hannibal Road, Suite 1000, Burlington, Ontario, L7M 1R6. Phone (416) 332-1373, FAX (416) 332-7359.

**Friday Harbor Lab**, University of Washington has announced their Spring and Summer Quarter instructional program offerings. Topics include: Larval Ecology, Marine Botany/Marine Zoology, Comparative Invertebrate Embryology. For additional course information and application forms please contact: Friday Harbor Laboratories,

University of Washington, 620 University Road, Friday Harbor, WA 98250; FAX (206) 543-1273.

## Employment

**Program Associate**, Haskin Shellfish Research Laboratory, Rutgers University, Port Norris, NJ. Primary duties: to assist in development of an aquaculture demonstration center; provide information on fish and shellfish culture using latest aquaculture research in South Jersey; coordinate aquaculture development between private industry, Cumberland County College and Rutgers University. Requirements: BS in aquaculture, marine science, or related field with emphasis in aquatic biology, aquatic chemistry and ecology. Requires excellent communication skills; will use personal car. Salary range: \$25,192 - 33,941. Contact: Karen McGee, Personnel Services, VP University Administration, Admin. Service Bldg. Annex, Room 105 - Busch Campus, New Brunswick, NJ 08903. Phone (908)932-3020. Please refer to position #065 when requesting information or sending a resume.

**Summer Technicians**, Haskin Shellfish Research Laboratory, Rutgers University, Port Norris, NJ. Laboratory and field-oriented positions in several areas of shellfish biology including aquaculture, genetics, physiology and parasitology are available starting May 1993. One position is available starting March 1993. Dormitory facilities are available. Seeking talented undergraduates or recent college graduates who have an interest in any of the areas listed above. Send resume and cover letter to Gregory A. DeBrosse, Haskin Shellfish Research Laboratory, 1 Miller Avenue, Port Norris, NJ 08349. Closing date: ASAP.

**Manager, Flax Pond Marine Laboratory**, Marine Sciences Research Center, SUNY - Stony Brook, NY. Primary responsibilities: oversee physical facilities and scientific support systems of lab, including flow-through sea water system; assist lab users in design and set-up of experiments; coordinate public educational activities of lab. Requirements: minimum two years experience in operation and maintenance of sea water systems; additional experience in operation of marine lab or aquaculture facility is highly desirable. BS/BA in Biology or a related science and demonstrated experience in care and maintenance of marine organisms in artificial culture. Additional training in marine sciences is highly desirable. Salary range: \$29,500 - 42,000. Application Deadline: February 15, 1993. Please send letter of application, resume and names of three references to: Dr. David Conover, FPL Manager Search Committee, Marine Sciences Research Center, The University at Stony Brook, Stony Brook, NY 11794-5000. The University at Stony Brook is an equal opportunity educator and employer.

**Research Assistantships: Shellfish Aquaculture** available at Virginia Tech, Department of Fisheries and Wildlife Sciences. Program: research on recovery and propagation of endangered freshwater mussels in the upper Tennessee River system. Start date: May 1, 1993. For more information please contact Dr. Richard Neves, Phone (703) 231-5927.



## Publications

*The Deep-Sea Red Crab Chaceon ("Geryon"): A Guide to Information and a Reference List of the Family Geryonidae* by E.W. Dawson and W.R. Webber, 1991. Miscellaneous Series No. 24, National Museum of New Zealand, P.O. Box 467, Wellington, New Zealand. ISBN 0-908953-00-3. The commercially significant deep-sea red crab family Geryonidae is discussed, and its taxonomy is briefly outlined. The book gives 393 bibliographical references to the family and provides detailed abstracts for most of the references.

*Zebra Mussels: Biology, Impacts and Control* by T.F. Nalepa and D.W. Schloesser, 1992. Lewis Publishers, Inc., 2000 Corporate Blvd. N.W., Boca Raton, FL 33431 USA. ISBN 0-87371-696-5. Subject matter includes: Ecology and Life History, Morphology and Physiology, Effect and Impacts, Mitigation, and General Biology and Ecology.

Titles of interest from the National Academy Press

*Marine Aquaculture: Opportunities for Growth* Committee on Assessment of Technology and Opportunities for Marine Aquaculture in the United States, National Research Council, 1992. ISBN 0-309-04675-0; 225 pages, hardbound, \$34.95.

*Seafood Safety Committee on Evaluation of the Safety of Fishery Products*, Institute of Medicine, 1991. ISBN 0-309-04387-5; 452 pages, hardbound, \$49.95.

*Restoration of Aquatic Ecosystems: Science, Technology and Public Policy* Committee on Restoration of Aquatic Ecosystems, National Research Council, 1991. ISBN 0-309-04534-7; 576 pages, hardbound, \$39.95.

To order the three titles listed above, contact: National Academy Press, 2101 Constitution Avenue N.W., P.O. Box 285, Washington, DC 20055. VISA/MasterCard/American Express accepted. Order by phone: 1-800-624-6242 (or 202-334-3313 in the DC area).

Titles from AVI/Van Nostrand Reinhold:

*Aquaculture Desk Reference* by LeRoy Creswell, 1992. ISBN 0-442-01081-8; 152 pages, \$39.95. Selected contents: conversion tables; properties of water; hatchery methods; phytoplankton culture; water treatment.

*Aquaculture Sourcebook: A Guide to North American Species* by E.S. Iversen and K.K. Hale, 1992. ISBN 0-442-00992-5; 320 pages, \$49.95. Selected contents: U.S. aquaculture; Canadian aquaculture; Mexican aquaculture; species for human consumption; experimental animals; taxonomic index.

To order the two titles listed above, contact: Van Nostrand Reinhold Mail Order Department, P.O. Box 668, Florence, KY 41022-9979 USA or call toll free 1-800-842-3636 (department Z2989). FAX (606) 525-7778. Publisher will pay shipping/handling charges on all pre-paid orders.

## INTERNATIONAL ELECTRONIC DISCUSSION GROUP ON SHELLFISH

An electronic forum for the discussion of all issues relating to shellfish has been created on the Internet. The forum, named simply SHELLFISH, is open only to members of the NSA (including the Pacific Coast Section) and operates using electronic mail. The Internet is the international computing network which connects virtually all academic institutions, most federal and non-profit agencies and now many commercial interests. Internet spans the globe with more than 700,000 sites; approximately 10 million people have access to the Internet.

The SHELLFISH forum, or "discussion group" in Internet terms, will cover all areas of shellfish research, the shellfishing industry, funding and employment opportunities, meetings and conferences, as well as any other shellfish-related topics that the participants in this discussion deem suitable. Access to the Internet and this discussion group is free to individuals. The discussion will operate throughout the year; NSA members are free to participate at their convenience. Naturally, the more NSA members that participate, the more valuable this discussion will become. Once you are subscribed, you will be able to post an inquiry to the group and get feedback from all over the world, sometimes in only minutes. For instance, you recall hearing that someone in Australia is working on early life history of *Jasus*, but you don't know who it was...ask the discussion group. You heard about a position on the other coast but have no details...ask the discussion group. You heard there might be a crustacean fisheries session at the next meeting...ask the group. The opportunities are nearly limitless, and this discussion group can become a vital resource in shellfish research and industry. Please invest a few minutes to subscribe to this discussion group.

To subscribe to SHELLFISH, send electronic mail from your own computing account via your local computing service center to the following Internet address:

SHELLFISH-REQUEST@KENYON.EDU

The body of the electronic mail should contain only one word: SUBSCRIBE followed by your real name (as opposed to your username). For example,

SUBSCRIBE John Q. Public

The programs that manage the discussion group will determine where this subscription came from and will automatically add you to the list of participants if you are a current member of the Association. Once your request to subscribe has been processed, you will receive via electronic mail fuller instructions on how to participate in the discussion group. If you have any questions on how to send the subscription command, contact your local computing support people first. If you have any questions about the discussion group itself, call Scott Siddall at (614) 427-5696 or send e-mail to SIDDALL@KENYON.EDU

**BIOGRAPHIES**  
**1993 National Shellfisheries Association**  
**Executive Committee Candidates**

**President-Elect**

**Thomas Soniat** - Professor and Head of Biological Sciences, Nicholls State University, Thibodaux, LA. B.S. Marine Biology, Nicholls State University; Cand. Mag. Marine Zoology (1975), University of Bergen (Norway); Ph.D. Oceanography (1982), Texas A&M University. Member of NSA since 1981; Member-at-Large (1982-85); Local Arrangements co-chairman for 1988 NSA annual meeting, New Orleans; Secretary-Treasurer (1989-91), Secretary (1991-1992). Research interests include oyster physiology, parasitology, and ecology which he applies to practical problems relating to seed production, depuration, and fisheries management. Dr. Soniat believes that NSA is an active, viable organization that has made great progress in recent years, but the escalating costs of publications threaten our financial future and merit our concern.

**Karolyn Mueller Hansen** - Postdoctoral Research Fellow, College of Marine Studies, University of Delaware, Lewes, DE. B.S. Biology (1980), The Pennsylvania State University; M.S. Environmental Science and Engineering (1984), Drexel University, Philadelphia, PA; Ph.D. (1996), University of Delaware. Member of NSA since 1988. NSA Quarterly Newsletter Co-Editor (1990), and Editor (1991-present); Publications Committee (1991-present). Research interests: effects of contaminants (metals) on molluscan physiology and ecology; molluscan metallothioneins; biomineralization; adhesive and structural proteins of marine bivalve molluscs.

**Vice-President**

**Rick DeVoe** - Associate Director, South Carolina Sea Grant Consortium, Charleston, SC. Associate Faculty Member, Graduate Program in Marine Biology, College of Charleston. B.S., Fairleigh Dickinson University; M.A., CUNY/City College of New York; M.M.A. Marine Policy, University of Rhode Island. Member of NSA since 1983. Chair, Local Arrangements Committee, 1994 NSA Annual Meeting, Charleston, SC. Member of World Aquaculture Society (WAS) since 1984; U.S. Chapter-WAS Secretary/Treasurer (1989-1991) and Vice-President (1991-1992). Served as Co-Chair, Planning Committee (1991, 1993), South Atlantic Regional Aquaculture Conference and Trade Show. Organized and convened a Conference and Workshop on "Introductions and Transfers of Marine Species: Achieving a Balance Between Economic Development and Resource Protection (1991).

**Bill Fisher** - Pathobiology Branch Chief, U.S. Environmental Protection Agency, Gulf Breeze, Florida, and Director, EPA Center for Marine and Estuarine Disease Research. B.S. (1971), Carnegie-Mellon University; M.S. (1973), Duquesne University; Ph.D. (1983), University of California-Davis. Postdoctoral research, University of Maryland; Fulbright Senior Research Award, France; Assistant Professor, University of Texas Medical Branch. Editorial Board Journal of Invertebrate Pathology; Editorial Advisor Diseases of Aquatic Organisms. Research Interests include infectious and non-infectious diseases of crustaceans and bivalves.

**Secretary**

**Bruce J. Barber** - Assistant Professor, Department of Animal, Veterinary, and Aquatic Sciences, University of Maine, Orono, ME. B.S. (1973), Ohio State University; Ph.D. (1984), University of South Florida; Post-Doctoral Researcher (1985-86) and Research Assistant Professor (1986-88), Rutgers University; Marine Scientist (1988-91) and Assistant Professor (1991-1992), Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA. NSA member since 1984. Thurlow C. Nelson Award (1984); Membership Committee (1987-88); Local Arrangements Committee (1990 annual meeting); Audit-Budget-Finance Committee (1990-91); Member-at-Large (1990-93); Membership Committee and Publications Committee (1991-92); Secretary (1992-present). Research interests include reproductive energetics, disease physiology, fisheries science and aquaculture.

*(continued on next page)*

### *Treasurer*

*Stephen Tettelbach* - Assistant Professor of Marine Science and Biology, Southampton College, Long Island University, Southampton, New York (1986-present). B.S. (1976, magna cum laude), University of Miami; M.S. (1979), University of Washington; Ph.D. (1986), University of Connecticut. NSA member since 1979; Thurlow C. Nelson Award (1986); Treasurer (1991-present). Teaching responsibilities: Fisheries Biology, Aquaculture, Microbiology, Tropical Marine Biology. Research interests: scallop ecology; shellfish re-seeding programs; predator-prey dynamics; bivalve aquaculture; molluscan taxonomy.

### *Member-at-Large*

*John W. Ewart* - Aquaculture Specialist, Delaware Sea Grant Marine Advisory Service, College of Marine Studies, University of Delaware, Lewes, DE. B.S. (1973), University of Rhode Island; M.S. (1985), University of Delaware. NSA member since 1982. Newsletter Editor (1986-91); Interim Member-at-Large (1992-1993). Research interests: shellfish and finfish culture, aquatic production systems, fisheries and marine resource development, international development, technology transfer and training.

*J. Evan Ward* - Research Associate, Department of Biology, University of New Brunswick, Saint John, NB, Canada (1992-present). B.S. (1981), Stockton State College; Short-Term Fellow (1984), Smithsonian Tropical Research Institute; M.S. (1985), University of Delaware; Ph.D. (1989), University of Delaware; Postdoctoral Fellow, Marine Sciences Research Laboratory, Memorial University of Newfoundland, St. Johns, NF, Canada (1990-1992). NSA member since 1983; Recipient of Thurlow C. Nelson Awards for best student paper, 2<sup>nd</sup> place (77<sup>th</sup> annual meeting 1985), 1<sup>st</sup> place (79<sup>th</sup> annual meeting 1987); co-organized and chaired 1<sup>st</sup> NSA annual meeting video session (1991); Member, T.C. Nelson Award Committee (1991). Editor of the Membership Directory for the International Society of Chemical Ecology (1989). Research Interests: chemical and physiological ecology of marine invertebrates, with emphasis on the feeding dynamics of bivalve molluscs, including endoscopic examination of feeding structures and mechanisms, chemical mediation of feeding, suspension-feeding competition.

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## HOW TO JOIN THE NATIONAL SHELLFISHERIES ASSOCIATION

Fill out and mail a copy of the application blank below. The dues are US\$40.00 per year (\$25.00 for students) and that includes the *Journal* and Newsletter!

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### NATIONAL SHELLFISHERIES ASSOCIATION - APPLICATION FOR MEMBERSHIP (NEW MEMBERS ONLY)

NAME \_\_\_\_\_ For calendar year \_\_\_\_\_ Date \_\_\_\_\_  
Mailing \_\_\_\_\_  
Address \_\_\_\_\_

Institutional Affiliation, if any: \_\_\_\_\_  
Shellfisheries Interests: \_\_\_\_\_

Regular or Student membership: \_\_\_\_\_  
Student members only - Advisor's signature REQUIRED \_\_\_\_\_

Make checks (*MUST* be drawn on a US bank) or international postal money order for \$40.00 (\$25.00 for students with advisor's signature) payable to the National Shellfisheries Association and send to Dr. Stephen Tettelbach, Division of Natural Sciences, Southampton College, Long Island University, Southampton, New York 11968 USA.



Dr. Carolyn Mueller Hansen  
NSA Quarterly Newsletter  
College of Marine Studies  
University of Delaware  
Lewes, DE 19958



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## BALLOT ENCLOSED

### Officers, Committee Chairs and Staff of the National Shellfisheries Association

Dr. Ralph Elston, **President**  
Battelle Marine Sciences Laboratory  
Sequim, WA 98382  
(206) 683-4151

Dr. John Kraeuter, **President-Elect**  
Haskin Shellfish Laboratory  
Rutgers University  
Box 8  
Port Norris, NJ 08349  
(609) 785-0074

Dr. Thomas Soniat, **Vice President and Program Chair**  
Department of Biological Sciences  
Nicholls State University  
Thibodaux, LA 70310  
(504) 448-4700

Dr. Stephen Tettelbach, **Treasurer**  
Southampton College  
Long Island University  
Southampton, NY 11968  
(516) 283-4000

Dr. Bruce Barber, **Secretary**  
Dept. Animal, Veterinary, and  
Aquatic Sciences  
University of Maine  
Orono, ME 04469-5735

Mr. John Ewart, 1990-1993  
**Member-at-Large**  
College of Marine Studies  
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Mr. Jeffrey Kassner, 1991-1994  
**Member-at-Large**  
Town of Brookhaven  
3233 Route 112  
Medford, NY 11763  
(516) 451-6455

Mr. Carter Newell, 1992-1995  
**Member-at-Large and Chair,  
Resolutions Committee**  
Great Eastern Mussel Farms  
Tenants Harbor, ME 04860  
(207) 372-6317

Dr. Carolyn Friedman, **Chair,  
Membership Committee and Chair,  
Pacific Coast Section**  
Fish Disease Laboratory  
California Department of Fish and Game  
2111 Nimbus Road  
Rancho Cordova, CA 95670  
(916) 355-0811

Dr. Scott Siddall, **Historian**  
Information and Computing Services  
Olin Center  
Kenyon College  
Gambier, OH 43022-9624  
(614) 427-5696

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