

# National Shellfisheries Association

## QUARTERLY NEWSLETTER



POST MEETING / SPRING 1998

ST. JOHN'S, NEWFOUNDLAND

### President's Inaugural Message

It is truly an honor for me to be serving as president of the National Shellfisheries Association. It is not something I would have dreamed about when I attended my first meeting in New Orleans back in 1973. When I look over the list of past presidents and see the names of people who are legends, I feel somewhat humble. Some of you will also eventually take over leadership roles in NSA (although you may not envision it now any more than I did in 1973) and have similar feelings. NSA is a great organization and it's fun to be a small part of it. There are so many people who make it that way through their volunteer efforts. But that's what makes it so good; those people are doing it because they want to, not because they have to. Some of your NSA Executive Committee and Committee Chairs are people who have served a long time, while others are new to their positions. All are greatly appreciated. The more you know about how things work in an organization, the more you appreciate the efforts of these volunteers. If you really want to be involved in your association, let an EXCOM or committee member know that you're interested in serving. Personal relationships will develop over time; I guarantee it.

Well Aquaculture '98 has come and gone, and Las Vegas is behind us. Thanks to the tremendous efforts of Sandy Shumway and Rick Devoe, we had a great week. I only wish more NSA members could have attended. Not only was the meeting interesting and rewarding, it was a lot of fun, and Vegas itself was exciting with its large hotels and variety of shows. The reasons for attending the triennial meetings are twofold. One, there is a wider diversity of papers than at our annual NSA meetings and they're coupled with fantastic trade shows. Second, because of the trade shows, the triennials are good revenue producers. However, since NSA's share is proportional to our attendance, the greater our attendance, the greater our revenue share. Remember that for 2001 when we go to Orlando. Here I am talking about money again. It's tough to get that out of my thoughts. Those of you who have been with NSA for 15 years or less may think that being chair of the Audit-Budget-Finance committee was a permanent position. Apparently it wasn't. Although I am no longer at that post, I have turned A-B-F over to the well-qualified Steve Tettelbach.

Elections this year were based on 238 ballots returned. Newly elected positions are: Rick Devoe - President-Elect, Evan Ward - Vice President, Kim Harrison - Secretary, Dan Kreeger - Treasurer and Lou D'Abramo - Member-at-Large.

Committee chairs are: A-B-F - Steve Tettelbach, Presidents, Elections and Awards - Roger Newell, Endowment/Student Awards - Maureen Krause and Aswani Voley, Resolutions - Lou D'Abramo, Publications - Mike Castagna, Membership - Dave Bushek, Industry - Joth Davis and Student Rep/Recruits - Jeff Springer.

Sandy Shumway continues to do a wonderful job with the *Journal of Shellfish Research*. (See article elsewhere in this Newsletter.) We all owe her our gratitude, for without her efforts the JSR might begin to slide back to what it was like before she rescued it.

Financially, we are stronger now than at any time in our history (See accompanying A-B-F report). Because of this we are now able to waive page charges for students who are senior authors of papers published in the JSR for up to one year after completing their degrees. We are able to offer the Melbourne R. Carriker Student Research Grant (See accompanying article), and we are able to help pay expenses of Honored Life Members and Wallace Award winners to attend meetings to receive their awards. And we are able to upgrade our web site. I hope you will visit it regularly.

*Continued on next page*

### The Melbourne R. Carriker Student Research Grant

NSA is pleased to announce the establishment of the annual Melbourne R. Carriker Student Research Grant. This grant is named in honor of one of the Society's most distinguished past Presidents and the person who formalized the regular publication of the society meeting notes as the "Proceedings of the National Shellfisheries Association". This is a competitive grant program to which NSA student members can apply for a \$1,000 grant for non-travel related expenses associated with undertaking their Master's thesis or Ph.D. dissertation research. Application details are given elsewhere in the newsletter and proposals must be received by July 31, 1998. Funding for this program comes from the general revenues that NSA obtains from annual dues and from our annual meetings and not from the Student Endowment Fund.

Roger Newell



Our students are very important to us. We hope that we can continue to offer them more each year than we could 30 years ago (or even 10). Although we had only a small group of students with us in Vegas, it was double the number we had at the last triennial in San Diego, and they presented some excellent papers and posters and helped the meeting go smoothly in numerous ways. Working the NSA table and running items at the auction is an opportunity to get to know some of the older members. And working the projectors during paper sessions prevents older members from having to do it. The auction this year for Student Endowment raised \$1600.

Our next meeting will be in Halifax, N. S. (See accompanying article). Halifax is a great city and I hope you all will get the opportunity to attend. We've not met there since 1987, and it will be good to return.

Karolyn Mueller Hansen (former Newsletter editor) has agreed to assume some of the duties from Scott Siddall for maintaining our web site ([www.shellfish.org](http://www.shellfish.org)). You should see increased activity there once Scott gets her up to speed. One of the things we realize is that a web site that contains old outdated information is much less interesting to visit than one that is continually updated. Our goal is to make this site more interesting, informative and useful for all of us. Don't forget, you can contact your officers and committee chairs through the web page to let them know your concerns or to volunteer your help.

SEE YOU IN HALIFAX.

George Abbe

## **90<sup>th</sup> Annual NSA Meeting** **Las Vegas, Nevada**

NSA celebrated its 90<sup>th</sup> birthday and Annual Meeting in Las Vegas as part of Aquaculture '98 -- the triennial meeting of NSA, WAS and AFS FCS from February 15-19, 1998. As part of the opening plenary session Dr. Melbourne Carriker, NSA Historian, presented a brief history of the NSA on the occasion of our 90<sup>th</sup> birthday. Mel's presentation is included in this issue.

There were about 250 people who registered as NSA members and about 70 abstracts from the meeting will be published in the next issue of the JSR. NSA members were also instrumental in organizing a number of special sessions, such as Maureen Krause and Elisabeth von Brand (Genetics), Michael Lesser and Charles Walker (Sea Urchins), Tom Soniat (oyster culture), Fu-Lin Chu (oyster disease research) and Dale Leavitt, Rick Karney & Jay Parsons (scallop culture).

There were twelve graduate students eligible for the presentation awards. As usual the quality was very high, making judging difficult. Congratulations to this year's Thurlow C. Nelson Award recipient Manfred T. Kittel from the University of Washington's School of Fisheries. The best Student Poster Award is presented to Lisa M. Milke from Salisbury State University. Also notable was that eleven of the students received support to attend the meeting.

The NSA student "Recruits" were once again instrumental in helping to staff the NSA booth where the ever popular pins, scarves, ties, cards, etc. were sold. A new popular item on sale this year was long-sleeve T-shirts with the NSA logo embroidered on the front. The T-shirts are available in three colors (navy, green and gray - L and XL only) and can be obtained from Sandy Shumway. The booth sales raised over \$1,300 for the NSA Student Endowment Fund.

The student auction was held on the evening of February 17 and was attended by well over 200 people. Sandy Shumway auctioned off many prized goods ranging from T-shirts to beer, fossils, books, stamps and many other items. The night's proceedings raised over \$1,370 for the Student Endowment Fund and for this good cause, Sandy once again gave away the shirt off her back! It is also worthy to note that the treasurer did refrain from trying to increase (decrease?) the night's proceeds by avoiding the gaming tables.

The NSA business luncheon saw the passing of the gavel from Roger Newell to new NSA President George Abbe. Roger was presented with several gifts (large and small) in appreciation of his term in office (see resolutions). The student's awards could not be announced at the business lunch due to scheduling conflicts, but the recipients are included in this issue. Dr. Brian Bayne was announced as the recipient of the Honored Life Member Award. Dr. Bayne will be at the NSA '99 meeting in Halifax to officially accept this award. It was also announced that Dr. Jay Andrew was the recipient of the 1998 David H. Wallace Award. It is hoped that Dr. Andrews will be able to attend the NSA '99 meeting to accept this award in person.

Overall, the Aquaculture '98 meeting was very enjoyable and successful and financially very fruitful for the long term viability of our association.

Jay Parsons



## A Brief History of a Venerable Society

Just out of the Navy from duty in the Pacific during World War II, and about to join the -Rutgers University Zoology Department, I attended my first NSA meeting in the Hotel New Yorker in New York City. It was June 1946. I was with Thurlow Nelson and Harold Haskin. The Oyster Growers and Dealers Association of North America (OGDA), the Oyster Institute of North America (OINA), and the National Shellfisheries Association (NSA) were meeting in Joint Annual Convention; three organizations that have been variably and beneficially linked over many years.

At Thurlow's invitation, I had enjoyed the late spring of 1946, with my wife and first child, at the Nelsons' New Jersey Cape Shore cottage, reviewing research on movements of oyster larvae, and recuperating from my naval experiences in the Pacific. The larvae were the topic of my five-page presentation before NSA, my first post-war scientific meeting. I was nervous; fortuitously, I had no knowledge of the history of the then 37-year-old, respected society I was about to join. Notables, among others, at the Convention of 134 attendees were Francis Beaven, Sewell Hopkins, Victor Loosanoff, Robert Menzel, and Herbert Prytherch.

The Oyster Growers and Dealers unwittingly initiated the formation of the tri-societal OGDA-OINA-NSA alliance. It was this way. The OGDA was formed in 1908, instigated by Henry Rowe, a New Haven oyster grower, shortly after oyster production along the East Coast began to decline. New England growers and packers, foreseeing problems, took the

lead, joined on the Atlantic, and later the Gulf and Pacific coasts, by oystermen to unite and expand the industry. One of the problems was the lack of practical biological information available to the state officials who exercised administrative control over the shellfisheries. Realizing that remedying this deficiency was essential if the industry were to continue robustly, leading fisheries people invited a small group of outstanding shellfish biologists to meet with them including, Julius Nelson and Caswell Graves, among others.

This distinguished group met on January 15, 1909 in New York City "for the purpose of creating a national association wherein those state and federal officials, charged with conserving and administering the extensive shellfisheries of the area, might meet, exchange ideas, and gain information from scientists who were studying biological and sanitary problems related to the industry".

This meeting resulted in the formation of the National Association of Shell Fish Commissioners on May 5, 1909.

Successive annual meetings of the Shell Fish Commissioners attracted an increasing number of new participants. This prompted the Commissioners in 1915, to broaden the organization to include fish, crab, and shrimp problems in its purview. The enlarged society was logically renamed the National Association of Fisheries Commissioners.

The National Association of Fisheries Commissioners met for the first time with the Oyster Growers and Dealers in 1929. This convention established the desired trend of expanded interchange of information among fisheries people and biologists.

*Continued on next page*



*Some of the NSA Past-Presidents in attendance at Aquaculture '98, NSA's 90th annual meeting in Las Vegas. Pictured here are (right to left) Melbourne Carriker, Roger Newell, Sandy Shumway, Tony Calabrese, John Kraeuter and Neil Bourne.*



Then, as more scientists in oyster biology, sanitation, and nutrition became active in programs of the National Association of Fisheries Commissioners, the Commissioners took a second important step and renamed their association the National Shellfisheries Association (NSA). This significant action became official on August 4, 1930, when the revised constitution was adopted.

About that time, the devastating depression of the 1930's struck the country. Oyster Growers and Dealers soon saw that an all-out, major move would be required to revitalize the shellfisheries industry during and after the depression. They finally acted in 1935, hiring a full time, paid director, Dr. Louis Radcliffe, and thenceforth operated under the organizational name of Oyster Institute of North America (OINA). Dr. Radcliffe was an admirable choice, bringing together most constituents of shellfisheries on the East Coast.

In 1937 Dr. Radcliffe took the lead, through the new Oyster Institute, to bring together the OGDA and NSA in a joint convention. This significant move strengthened the meetings and attracted an increasing number of participants from shellfish producing regions in the United States, Canada, and several overseas nations. Subsequently, to better represent all commercial molluscs, the Oyster Institute was renamed the Shellfish Institute of North America (SINA).

As beneficial as the tri-societal conventions were for shellfish biologists, the cost of meeting places posed a serious problem for many biologists and their students. When high sales of shellfish were bringing good prices, many OGDA members attended with their families; and the conventions, held in attractive city hotels, were festive functions with banquets, dances, and special entertainment. On the other hand, biologists, mostly university faculty, were less affluent and frequently bridled at the high cost of the meetings. In 1959, for example, when I was president of NSA, the convention was held in the plush Statler-Hilton Hotel in Washington, D.C. Fortunately for me, a complimentary presidential suite was available for my wife, four energetic young children, and me.

Regrettably, in the last decade or so NSA and SINA-OGDA have met separately; but happily, some members of the organizations still attend each other's meetings and continue to share ideas.

In the course of its long 89-year history NSA has grown to be a large, influential society, with an impressive international attendance at annual meetings. Not the least of NSA's contributions during this growth has been the regular publication of a professional international journal on molluscan and crustacean biology and fisheries.

Earliest crudely duplicated reports of NSA meetings, however, were scanty efforts at best. They were edited and issued without volume numbers in mimeographed form by the busy

NSA secretary, under such changing titles as "Preliminary Notes", "Convention Addresses", "Convention Papers", "Papers and Discussions", "Addresses", and so on.

By 1954, uneasy with this lack of professionalism and serving as NSA secretary, I traced the uneven history of the reports trying unsuccessfully to arrive at a volume number for the 1954 report. Finally a volume number for each year that the annual meetings had been held was assigned arbitrarily.

By that same year NSA was increasingly recognized as a professional scientific society by persons working in, or interested in shellfisheries. It was thus time that its publication also be recognized officially with a suitable permanent title, uniform format, and a consistent publication policy. Accordingly, later in 1954, by action of the NSA Executive Committee, the official title of the journal became the "Proceedings of the National Shellfisheries Association". And in 1955 an Editorial Committee was established in the revised Constitution. The Committee's oversight was very helpful during my editing of volumes 46 (1955) and 47 (1956). Thenceforth, under six new successive editors and several editorial committees, the "Proceedings" continued to advance.

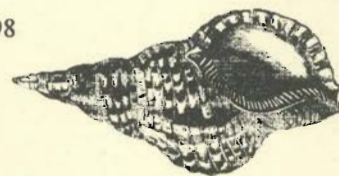
Volume 70 (1980) edited by Robert Hillman was the last under the name "Proceedings". Thereafter, the name was changed to the "*Journal of Shellfish Research*", starting afresh with volume one. Robert Hillman and later Roger Mann took the JSR through its transition. In 1987, Sandra Shumway, starting with volume six, graciously accepted the editorship. Since, she has taken the JSR to increasing creditable heights.

For many years, the OGDA, OINA (SINA), and NSA had a fascinating closely intertwining history resulting in a rewarding, though sometimes bumpy, symbiotic association that successfully bridged biology and commerce. Although now the societies meet independently, NSA programs include topics of interest to shellfish growers and dealers, and profitable interactions still continue. In this continued fruitful alliance, shellfisheries is certain to move productively into the inevitable, increasingly-controlled, future mariculture of molluscs and crustaceans.

Melbourne R. Carriker

College of Marine Studies,  
University of Delaware,  
Lewes, Delaware 19958

February 6, 1998





## Resolutions

**WHEREAS**, The National Shellfisheries Association, Inc. (NSA) is a Not-For Profit Corporation, and, **WHEREAS**, members serve as officers and committee members on a voluntary basis, **BE IT RESOLVED** that on February 18, 1998, the National Shellfisheries Association formally recognized and thanked the Chairs of the following committees:

George Abbe, Audit, Budget and Finance Committee

Mike Castagna, Publications Committee

Stephen Tettelbach,

President's, Elections and Awards Committee

Mel Carriker, Association Historian

Joth Davis, Industry Committee

David Bushek and Lou D'Abramo, Membership Committee

Dan Kreeger, Student Endowment and Awards Committee

James Anderson, Chair of the Student Organization, The Recruits,

for their outstanding contributions to the prosperity and well being of the National Shellfisheries Association during the last year.

**WHEREAS**, The National Shellfisheries Association, Inc. (NSA) is a Not-For Profit Corporation, and, **WHEREAS**, members serve as officers and committee members on a voluntary basis, **BE IT RESOLVED** that on February 18, 1998, the National Shellfisheries Association formally recognized and thanked Sandy Shumway and Rick Devoe for representing the National Shellfisheries Association in the organization of the 1998 Triennial Meeting of the World Aquaculture Society, the National Shellfisheries Association and the Fish Culture Section of the American Fisheries Society. Dr. Shumway is congratulated on her task of making arrangements for the meeting and Mr. Devoe is commended for organizing the professional program for the NSA section of the Annual Meeting.

**WHEREAS**, The National Shellfisheries Association, Inc. (NSA) is a Not-For Profit Corporation, and, **WHEREAS**, members serve as officers and committee members on a voluntary basis, **BE IT RESOLVED** that on February 18, 1998, the National Shellfisheries Association formally recognized and thanked Sandy Shumway for her outstanding commitment and service to the National Shellfisheries Association as Editor of the Journal of Shellfish Research for the past ten years. Dr. Shumway's tireless dedication to maintaining, and more often improving, the quality and circulation of JSR has made the Journal one of the finest professional publications in the world.

**WHEREAS**, The National Shellfisheries Association, Inc. (NSA) is a Not-For Profit Corporation, and, **WHEREAS**, members serve as officers and committee members on a voluntary basis, **BE IT RESOLVED** that on February 18, 1998, the National Shellfisheries Association formally recognized and thanked Maureen Krause for her commitment and fortitude in serving as the Editor of the National Shellfisheries Association Newsletter. Her tenacity in begging, pleading, and coercing members to submit articles and information has made the NSA Newsletter a periodical which conveys information on matters of great import to the members of this Association.

**WHEREAS**, The National Shellfisheries Association, Inc. (NSA) is a Not-For Profit Corporation, and, **WHEREAS**, members serve as officers and committee members on a voluntary basis, **BE IT RESOLVED** that on February 18, 1998, the National Shellfisheries Association formally recognized and thanked

Roger Newell, President

George Abbe, President-Elect

Rick Devoe, Vice President

Bruce Barber, Secretary

Evan Ward, Treasurer, and

Nancy Lewis, Bookkeeper

for their diligence and guidance of the National Shellfisheries Association during the last year.



*Maureen Krause receiving a framed resolution from Gef Flimlin (NSA Member-At-Large) recognizing her contribution as NSA Newsletter editor.*



## Announcement - Winners of 1998 NSA Student Awards

Twelve graduate student members of the National Shellfisheries Association presented their research results at Aquaculture '98 in Las Vegas. Eleven of these students applied for and received travel awards (free lodging and/or registration) to help defray the costs of attendance; Washington Cardenas (University of Southwest Louisiana), Kelly Curtis (University of Washington), Carolina Garrido (University of Maine), Candyce Gray (University of New Brunswick), Manfred Kittel (University of Washington), Lorelei Levy (Memorial University), Lisa Milke (Salisbury State University), Jacques Oliver (Virginia Institute of Marine Science), David Rudders (Virginia Institute of Marine Science), Catherine Ryan (Memorial University), and Ervin Shumacker (University of Washington).

The members of the 1998 Student Endowment/Awards Committee are delighted to announce that the Thurlow C. Nelson Award for best oral presentation by a student went to Manfred T. Kittel from the University of Washington's School of Fisheries. Manfred, a student of Ken Chew's, gave a paper titled "Comparative analysis of Tasmanian Pacific oysters, *Crassostrea gigas*, after growout in Washington State." The Nelson award provides a four year, free membership in NSA. The best student poster award for 1998 was given to Lisa M. Milke from Salisbury State University. Lisa is a student under Dr. Evan Ward (who was also the advisor of last year's poster award winner), and her presentation, coauthored by Ward, Sandra Shumway, and Jeff Levinton, was titled "Modeling the feeding processes in bivalves: in vivo studies of particle transport rates on the ctenidium (=gill)." The poster award provides one year NSA membership.

Eleven judges helped select travel awardees and review presentations at the meeting. They were: David Bushek, Fu-Lin Chu, Lou D'Abramo, Maureen Krause, Dan Kreeger, Bruce MacDonald, John Riley, David Rouse, John Scarpa, Sandy Shumway, and Aswani Volety.

Thanks to everyone who helped make Vegas a fun, exciting and successful meeting for the students.

Dan Kreeger

## HALIFAX 1999 PROGRAM INFORMATION

A call for ideas.....ideas.....ideas!!! Planning of the scientific program for the next NSA meeting is underway. I would like to take this opportunity to invite all members to submit ideas for special sessions or workshops for the Halifax meeting. If you would like to organize a session or workshop please send me a short (one paragraph) description of your ideas. In addition to the standard contributed sessions, several special sessions are already being organized, including:

1. Modelling shellfish ecosystems (organizer: Eileen Hofmann)
2. Science, business and the future of the shellfisheries industry (organizer: Joth Davis)
3. Physiological ecology of shellfish, applications and future directions (organizer: Bruce MacDonald)
4. Perspectives in lobster biology and fisheries (organizer: Peter Lawton)

This is certainly a good start, but I would like to see other special sessions take shape. For example, I would like to see a session on freshwater shellfish, and perhaps a mini-session on careers in shellfisheries science and industry for our students. In addition, special sessions are not restricted to talks; a combination talk and poster session, or poster session only might prove very interesting.

So again, if you are interested in organizing a special session near and dear to your heart, this is your opportunity. Please send me a note and we can discuss your idea. I would like to finalize all special sessions by the end of June, if possible. A call for papers will go out in the next newsletter, .....so watch this space for more information. Members can contact me via E-mail (jeward@uconnvm.uconn.edu), phone (860-405-9073), or fax (860-405-9153) I hope to hear from many of you in the near future.

Evan Ward  
Vice-president

Visit **www.shellfish.org** for the latest updates on meeting information, an electronic version of the registration form, as well as links to other shellfish-related sites



## **Application details for the Melbourne R. Carriker Student Research Grant**

### **General Rules:**

Proposals will be reviewed by the NSA awards committee, which is an NSA standing committee chaired by the immediate past-president. Notification of the successful applicant will be made by October 31, 1998.

The applicant must be a student member in good standing of the National Shellfisheries Association and currently enrolled as a MS or Ph.D. student in a recognized degree granting institution anywhere in the world. Students who have previously been awarded a Carriker Research Grant are not eligible to apply again. Grants will be made in the form of a check made personally payable to the recipient and no institutional overhead can be charged on these funds. The \$1,000 is designed to allow a student to purchase supplies and equipment essential to performance of their research. It is neither intended to allow purchase of general items, such as computers, nor to fund travel expenses associated with attending Professional Meetings. Students seeking travel support to attend NSA meetings should apply separately for money made available through the NSA Students Awards Committee. It is expected that students who are recipients of the Carriker award will present their dissertation research at one of the annual NSA meetings.

A completed application will consist of the following four components:

1. Cover sheet with the applicants name, professional address, phone number, email address, thesis title, degree being sought (MS or Ph.D.), date they entered the graduate program, and anticipated graduation date.

2. Text. Maximum of two pages single spaced 12 pt font plus one page for figures (if needed). This should include an introduction to the research problem being addressed and the objectives and hypotheses being tested. There should be a clear statement of how the funds being requested will further the student's research project. Literature cited section is not included in this page limit

3. Budget page briefly itemizing how the \$1,000 being requested will be spent (e.g., \$150 for scintillation vials, \$200 for scintillation cocktail, \$120 disposable safety supplies, etc).

4. A resume listing educational background, awards/honors, presentations at meetings, and publications.

5. A letter of endorsement from the student's major advisor must be attached at the back of the proposal confirming that the funds are necessary for the student's research.

Five copies of the application should be sent to reach the following address by 4 p.m. on July 31, 1998. No faxed, electronic, hand written or late proposals will be considered.

Dr. Roger I. Newell, Chair NSA Awards Committee  
Horn Point Laboratory  
UMCES  
2020 Horns Point Road  
PO Box 775  
Cambridge  
MD 21613



### **Passing the gavel**

*Incoming NSA President George Abbe (right) presents outgoing President Roger Newell (left) with a gift signed by NSA members at the 1998 annual general meeting in Las Vegas in February.*



## Audit-Budget-Finance Update

NSA is stronger now financially than ever. Total revenues for the 1996-97 fiscal year (October 1996 through September 1997) were \$157,893 and expenses were \$142,077 for an increase of \$15,816 to our overall balance. Our goal of \$126,000 in cash reserves by the end of our 1997-98 year was exceeded even before we got to Aquaculture '98, although we now know we need more than that to operate for one year (about \$140,000 to \$150,000). During the last seven fiscal years our resources have gone from \$10,150, to \$34,800, to \$61,250, to \$42,400, to \$108,600, to \$119,700 and finally to \$135,477 by the end of September 1997. And this does not include the \$15,645 in the Student Endowment Fund.

Administrative revenues and expenses for 1996-97 were \$37,405 and \$27,337, respectively, for an increase of \$10,067. Publication revenues were \$81,721 and expenses were \$92,950 for a decrease of \$11,229. And the revenues from the Fort Walton Beach meeting were \$38,767 and expenses were \$21,790 for a gain of \$16,977.

The proposed budget for the 1998-99 fiscal year, which begins 1 October 1998, projects a gain of \$9,020 from administrative activities, a decrease of \$5,350 from publications, and a gain of \$7,700 from our meeting in Halifax in April 1999. If these revenues and expenses are realized it would increase the Association's balance by another \$11,370. Changes in our accounting procedure shift \$15,000 from administrative revenues to publication revenues, and newsletter costs are also covered by administrative revenues; this helps reduce the decreases previously encountered by publications each year.

NSA financial ledgers were reviewed in 1997, but not to the same degree that they will be after the 1997-98 fiscal year is closed and the books are transferred to our new treasurer Dan Kreeger.

George Abbe, Chairman  
Audit-Budget-Finance Committee (1997-1998)

**Members: Does your Institutional Library subscribe to the Journal of Shellfish Research? If not, please ask them to do so!**

## TREASURER'S POSITION TO BE TRANSFERRED IN THE FALL

For those of you who are wondering where to send your dues payments or page charge checks, please note that I will continue to serve as NSA Treasurer until the end of fiscal year 1997-1998 (September 30th, 1998). Dan Kreeger is now treasurer-in-training and will assume the duties in September. So for now, please continue sending payments either to me or Nancy Lewis (Bookkeeper) as follows:

Nancy Lewis (Bookkeeper): send dues payments, new-member dues, donations, questions concerning membership

Evan Ward (Treasurer): send page/offprint payments, JSR back-issue payments, inquiries concerning receipts or other NSA business

If you have a questions or uncertainties, please feel free to contact me for information.

Evan Ward  
Treasurer

## Recruits Corner

While I did not attend the Las Vegas meeting, I have heard that it was a great experience and a lot of fun. ("Lots of free drinks" is a comment I've heard frequently from students who did attend, and no one reported losing all their money.)

The student oral and poster presentations were once again excellent. Congratulations to all who participated, especially Manfred T. Kittel from the University of Washington's School of Fisheries winner of this year's Thurlow Nelson Award, and to Lisa M. Milke from Salisbury State University who won the award for Best Student Poster Presentation.

The next meeting, in Halifax in April '99, should have a much different flavor than the Vegas gathering. Thankfully, abstracts for NSA '99 won't be due until the fall, so we all have a full summer to generate some killer data. Best wishes to all of you in this busy field season. If you have any comments or concerns, don't hesitate to contact James Anderson or myself.

Ryan Carnegie  
(ryan.carnegie@umit.maine.edu)



## **From the Newsletter Editor...**

Well it has happened! Maureen has sent the disks, the software and washed her hands of us. Well not quite washed her hands of us. She will be co-chairing the Endowment/Student Awards Committee—where I know she will do as good a job as she did as Newsletter Editor (see Resolutions).

There are no proposed changes to the format of the Newsletter, but suggestions and ideas are always welcome and my address is on the back page. To pick up where Maureen left off, the role of the Newsletter Editor seems to be one of “begging, pleading and coercing members to submit articles and information”. So if you have notices of upcoming meetings or conference, information for the Metamorphosis column (new students? graduating students?, new member? moving on?) or are willing to submit an article on your laboratory, research or meeting summary, please pass it along.

Jay Parsons

**NSA '99**  
**April 18-22, 1999**  
**Halifax, Nova Scotia**  
**Canada**

*For information on programs  
contact Evan Ward*

*For information on local  
arrangements  
contact Jay Parsons*

Recruited by? \_\_\_\_\_

### ***How to Join the National Shellfisheries Association***

Fill out and mail a copy of the application blank below. The dues are US \$45.00 per year (\$25.00 for students) which may be paid by credit card, check, or money order. Membership entitles you to receive *The Journal of Shellfish Research* and the *Quarterly Newsletter*!

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

Name: \_\_\_\_\_ For Calendar Year: \_\_\_\_\_ Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

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

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Shellfisheries interests: \_\_\_\_\_

Regular or Student membership? \_\_\_\_\_

Student members only - Advisor's signature REQUIRED \_\_\_\_\_

If paying by credit card: Type of card: VISA MASTERCARD (circle one)

Name on card: \_\_\_\_\_ Signature: \_\_\_\_\_

Expiration Date: \_\_\_\_\_ Number: \_\_\_\_\_

Make checks (MUST be drawn on a US bank) or international postal money order for \$45.00 (\$25.00 for students with advisor's signature) payable to the National Shellfisheries Association and send to Ms. Nancy C. Lewis, NSA Bookkeeper, P.O. Box 350, VIMS Eastern Shore Lab, Wachapreague, VA 23480.



## Industry Update

Blame it on El Nino! The second half of 1997 was an interesting time for many shellfish growers on the west coast as many producers were hit with area-wide closures. First, in mid-August, producers of oysters for half-shell markets in California, Oregon, Washington and British Columbia had their oyster operations curtailed for a month due to high levels of *Vibrio* bacteria found in oyster tissues which caused a significant number of people in the United States and Canada to become ill after eating raw oysters. The outbreak was due to *Vibrio parahaemolyticus*, a naturally occurring marine bacteria, which can flourish in marine waters under conditions of warm water and reduced salinity. Warm ocean waters and a period of abnormally hot weather in the Northwest likely contributed to the *V. parahaemolyticus* problem, which has not been an issue for west coast growers in recent years. A rapid response by the industry, including the Pacific Coast Oyster Grower's Association, the B.C. Shellfish Growers Association, and state regulators prevented a more wide spread human health problem. In any case, the closures resulted in many half-shell oyster producers suspending operations for a time in August and September.

Following the *Vibrio* scare, the shellfish industry in Willapa Bay and parts of Puget Sound have been hit with a very late PSP closure which has persisted in many areas on through much of November and December and into January. This closure has hit some of the industry very hard as oyster sales usually peak in November and December.

What appears to be clear from reports of PSP closures in recent years for Washington State and British Columbia, is that toxic algal blooms are increasing their impact on the industry as closures are longer and more prevalent. The closure in southern Puget Sound, for example, is nearly unprecedented in terms of the bloom's timing, and the duration of toxin retention in shellfish tissues.

Despite shellfish production closures, the industry continues to move ahead in the area of new culture opportunities. Geoduck clams (*Panopea abrupta*) have captured the attention of a significant number of shellfish culturists in Washington and British Columbia. Demand for geoduck seed in Washington State far exceeds the supply as several larger companies have begun large scale planting of beds using a variety of techniques. The challenge with geoducks lie in the extreme vulnerability of seed to predation, desiccation and other stressors. Successes have been few to date. The most promising culture methods have focused on the installation of PVC tubes in intertidal substrates overlain with predator netting. This is also the most costly method for grow out. Other developments include research efforts to create triploid geoducks and subtidal culture efforts, mainly in British Columbia.

In other news, the Molluscan Broodstock Program, under the direction of Chris Langdon, will produce the first mature Pacific oyster broodstock lines available to the U.S. west coast shellfish industry in 1998 from oysters planted in Tomales Bay, California. Queries regarding the availability of broodstock oysters should be made to Chris Langdon directly at the Hatfield Marine Science Center in Newport, Oregon.

Finally, some of the significant issues discussed at the Executive Committee meeting in Las Vegas. A consensus of issues of general interest amongst the committee included utilizing the NSA and its annual meeting to provide for better linkages between academia and industry in order to foster enhanced training opportunities in invertebrate fisheries and culture including hatchery technologies, the means to link industry membership with the scientific community via the NSA website, a means to increase industry participation in NSA via one-day industry oriented work shops and round table discussions of important (and probably controversial) topics, a means to increase the emphasis on trade shows during national meetings, a means to strengthen ties between industry and academia by instituting industry based research programs with direct ties to established researchers in academia and government agencies, developing a means to permanently strengthen ties between NSA and the ISSC, and developing the means to establish an industry sponsored award for the best technology transfer paper or poster presented by a student at the NSA annual meeting. Other ideas are of course welcome. Please feel free to correspond ([jdavis@wolfenet.com](mailto:jdavis@wolfenet.com)).

Jonathon Davis

## **Long-Sleeved T-Shirts**

*Embroidered with NSA logo  
Green, navy or gray (L or XL)  
Only \$20 including postage*

*Contact Sandy Shumway  
(address on back page)*



## Upcoming Meetings

**Aquaculture Canada '98:** May 31-June 3, 1998, Delta Hotel, St. John's, Newfoundland, Canada. 15th Annual Meeting of the Aquaculture Association of Canada. Theme is "Research: An investment in the future". For more information, contact Jay Parsons at tel 709-778-0307, email [jparsons@gill.ifmt.nf.ca](mailto:jparsons@gill.ifmt.nf.ca) or visit [www.ifmt.nf.ca/mi/aac](http://www.ifmt.nf.ca/mi/aac).

**Sharing our Gulf - A Challenge for Us All:** June 10-12, 1998, Texas A&M University, College Station, TX. This conference will bring together diverse groups to look at some of the most important and challenging resource use questions facing the Gulf of Mexico. Registration materials can be obtained by writing Texas Sea Grant College, 1716 Briarcrest, Suite 603, Bryan, Texas 77802 or check out the conference link on the Texas Sea Grant Homepage at <http://Texas-Sea-Grant.tamu.edu>

**IIFET TROMSØ:** July 8-11, 1998, Tromsø, Norway. The conference themes are Seafood Trade & Markets, Fisheries Management & Development, Coastal Zone Management & Aquaculture, Methods, and Special Topics. For details, contact IIFET Secretariat, Oregon State University, Dept. of Ag. & Resource Economics, Corvallis, OR 97331-3601, Phone (541) 737-1414, Fax (541) 737-2563, Email [mandigod@ccmail.orst.edu](mailto:mandigod@ccmail.orst.edu) or [Ann.L.Shriver@orst.edu](mailto:Ann.L.Shriver@orst.edu)

**2nd International Conference on Recirculating Aquaculture Systems:** July 16-19, 1998, Hotel Roanoke Conference Center, Roanoke, Virginia. Topics include recirculating aquaculture design, operation and management, business plans, economic analysis, marketing and market development, fish health and disease, food safety and HACCP, quality control, and system engineering and waste management. For information contact Dr. George Libey at Food Science Bldg. #0418, P.O. Box 850, Blacksburg, VA 24063-9959, Phone (540) 231-6805, Fax (540) 231-9293, Email [cfast@vt.edu](mailto:cfast@vt.edu)

**International Association of Astacology:** August 3-9, 1998, Augsburg, Germany. Please contact the IAA web page at <http://www.valdosta.peachnet.edu/vsu/dept/cas/bio/iaa> or email [jhuner@usl.edu](mailto:jhuner@usl.edu). Information is also available from the permanent Secretariat, phone: (318)482-5239, FAX: (318)482-5395, P.O. Box 44650, Univ. of Southwestern Louisiana, Lafayette, LA 70504, USA

**8th International Congress on Invertebrate Reproduction and Development:** August 10-15, 1998, Vrije Universiteit, Amsterdam, The Netherlands. Please contact the ISIRD web site at <http://www.bio.vu.nl/vakgroepen/od/onb/icir/>. Information is also available from the Congress Secretariat, 8th ICIRD, VU Conference Service, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands. Phone (+) 31-20-4445790; FAX (+) 31-20-4445825; Email: [VU\\_conference@dienst.vu.nl](mailto:VU_conference@dienst.vu.nl).

**Coastal Zone Canada 98:** August 30 - September 3, 1998, Victoria, British Columbia, Canada. This conference aims to advance the field of Integrated Coastal Management throughout the world. Coastal Zone '98 will create a working forum where a broad cross-section of stakeholders in the coastal zone will not only participate in defining issues, but will also share experiences and collectively identify the range of alternatives to address at the community level. For more information contact (250)721-8470, Email: [czc98@ios.bc.ca](mailto:czc98@ios.bc.ca), or visit <http://www.ios.bc.ca/ios/czc98/>

**Third International Symposium on Aquatic Animal Health:** August 30-September 3, 1998, Renaissance Harborplace Hotel, Baltimore, Maryland. Please see the call for abstracts insert in this newsletter and contact the symposium office to be added to the mailing list for detailed announcements.

**Aquaculture Europe:** October 7-10, 1998, Bordeaux Convention Centre in Bordeaux Lac, France. Biennial conference, workshop, and exhibition. This will be a global forum for discussing and evaluating the perspectives, achievements and constraints of the management of the aquatic environment, the use of water in fish and shellfish farming, interactions with other water users, and water quality. Summary deadline March 1, 1998. For further details contact BCF-Fax: 011 (33) 556 43 1776, or email the European Aquaculture Society at [eas@unicall.be](mailto:eas@unicall.be).

**2nd International Conference on Shellfish Restoration:** November 18-22, 1998, Hilton Head, South Carolina, USA. ICSR '98 will provide an opportunity for government officials, resource managers, and users to discuss approaches to restore coastal ecosystems through habitat quality assessment and restoration; stock enhancement, management, restoration; and habitat remediation through watershed management. Those interested in participating should request more information by contacting Elaine Knight: e-mail [eknightel@musc.edu](mailto:eknightel@musc.edu); voice mail (803) 727-6406; or fax (803)727-2080. If you would like information on submitting an abstract, contact Rick DeVoe: e-mail [devoemr@musc.edu](mailto:devoemr@musc.edu); phone (803) 727-2078; or fax (803) 727-2080. You may also find updated information on the workshop at <http://www.csc.noaa.gov/SCSeaGrant/text/ICSR.html>.

**Marketing & Shipping Live Aquatic Products '98:** November 22-24, 1998, Marriott Hotel, Sea-Tac Airport, Seattle, WA. Immediately following FISH EXPO. For information please contact Conference Manager, John B. Peters, Nor'Westerly Food Technology Services, 20455 - 1st Ave. NE, Suite C 303, Poulsbo, WA 98370-9329. FAX: (360)394-3760 or Email: [JohnBPeters@compuserve.com](mailto:JohnBPeters@compuserve.com).



### **Still available**

*There are a limited number of cookbooks and abstract booklets from the Aquaculture '98 meeting (@\$10 includes postage). Contact Sandy Shumway at address on back page.*

**Second Announcement:  
2nd International Conference on  
Shellfish Restoration  
November 18-22, 1998  
Hilton Head, South Carolina, USA**

The 2nd International Conference on Shellfish Restoration (ICSR '98) will provide an opportunity for government officials, resource managers, and users to discuss approaches to restore coastal ecosystems through habitat quality assessment and restoration; stock enhancement, management, restoration; and habitat remediation through watershed management. Throughout the world there is a growing commitment to restoring degraded coastal ecosystems. Everywhere there seems to be a renewed interest in preserving and enhancing coastal resources at all levels of government. More than 200 professionals representing eight countries attended the first ICSR Conference in 1996.

The conference is planned for Nov. 18-22, 1998, at the Crowne Plaza Resort on Hilton Head Island, S.C., and will consist of invited and contributed oral and poster presentation and workshops. A session also will be organized by the Oyster Disease Research Program. The mornings will feature internationally recognized plenary speakers, and the afternoon will feature concurrent sessions organized around theme areas.

Those interested in participating should request more information by contacting Elaine Knight: e-mail <knightel@musc.edu>; voice mail (803) 727-6406; or fax (803) 727-2080. If you would like information on submitting an abstract, contact Rick DeVoe: e-mail <devoemr@musc.edu>; phone (803) 727-2078; or fax (803) 727-2080. You may also find updated information on the workshop at <http://www.csc.noaa.gov/SCSeaGrant/text/ICSR.html>.

**First Announcement:  
12<sup>th</sup> International Pectinid Workshop  
Bergen, Norway, 5-12 May 1999**

You are invited to attend the 12<sup>th</sup> International Pectinid Workshop which will take place in Bergen, Norway on 5-12 May 1999. This biannual workshop provides a unique opportunity for scallop fondlers from around the world to meet and interact on both a social and a scientific level.

The scientific program of the 1999 workshop will include thematic sessions preceded by invited key speakers, special area working groups and plenary discussions. We invite you to present papers or posters pertaining to any aspect of pectinid biology, fisheries and aquaculture. Due to time constraints, the number of oral presentations will be restricted and contributors are encouraged to prepare poster presentations.

To facilitate further planning and organization, the local organizing committee requests interested participants to preregister by contacting: Mr. Gunnar Eiken, 12<sup>th</sup> IPW, Local Organizing Committee, Hordaland Fylkeskommune, N-5020 Bergen, Norway (Tel: + 47 56 55 53 33; Fax: + 47 55 23 93 16; E-mail: [gunnarek@online.no](mailto:gunnarek@online.no)).

The closing date for submission of extended abstracts for oral and poster presentations will be 1 Nov 1998. Suggestions or comments regarding the scientific programme of the workshop should be directed to: Dr Øivind Strand, Chairman of the Scientific Committee, Institute of Marine Research, P. O. Box 1870, Nordnes, N-5024, Bergen, Norway (Tel: + 47 55 23 83 13; Fax: + 47 55 23 83 33; E-mail: [oivind.strand@imr.no](mailto:oivind.strand@imr.no)).



# **Aquaculture Center for Training, Education and Demonstration**

**Harbor Branch Oceanographic Institution, Inc.**

## **1998 Courses**

Our 2 1/2 day introductory workshop provides participants with the basic knowledge for getting started in aquaculture. This mainstay workshop will help you find out if you want to be in aquaculture and, if so, what you need to do to get going. Site, species, and system selections, regulations, marketing, finances, and business planning are covered. Activities with clam, shrimp and fish culture techniques are included.

### **Backyard Aquaculture**

May 8; Nov. 7

This one-day workshop is designed to provide the hobbyists, farmer or educator with the necessary knowledge to grow food fish at home or in the classroom. Topics include simple inexpensive recirculating systems, species selection, feeding criteria, water quality and health management. Tilapia is the featured food fish for this workshop.

### **Culture of *Penaeus vannamei***

May 11-15; Dec. 7-11

This popular 5-day course provides hands-on instruction in grow out production of Pacific white shrimp juveniles in salt or freshwater. System design and operation, stocking, feeding, water quality, record keeping, harvesting, marketing, and regulations are covered. To assist in site selection, the course includes a bioassay and water quality test of your water at a reduced fee.

### **Hard Clam Aquaculture**

May 18-22; Oct. 5-9

This 5-day course is for participants interested in the hard clam aquaculture business or in starting a clam farm. The course includes land-based and field-based nursery system design and operation, grow out strategies, sieving, sorting, lease siting and application, general permitting, shellfish regulations, controlling predators, clam economics, marketing and maintaining records.

### **Practical Aquaculture Techniques**

Jul. 6-24

This 19-day course covers aquaculture systems and processes focusing on the design and operational protocol for aquaculture systems. Topics include system layout and requirements, water sources, pumps and plumbing, recirculating technology, aeration, disinfection and operational considerations. Students will operate culture systems in the training hatcheries, design an aquaculture facility and outline production protocols for a chosen species. This course can be taken for 4 semester hr college credits.

### **Recirculating Systems: Principles, Engineering, Components, Construction and Operation**

Jul. 8-14

This 7-day course covers aspects of recirculating systems and components presently used in the U.S. Topics include solids removal systems, microfiltration, microscreens, biofiltration, aeration systems and other innovative components used in recirculating systems. System design, carrying capacity, flow requirements, nitrification principles, and water quality will also be covered. Participants will design and build a recirculating system.

### **Advance Techniques in Marine Finfish Aquaculture**

Jul. 13-26

This 14-day course covers maturation, spawning and larval husbandry of several commercially important coastal, reef, pelagic and demersal fish species, such as flounder, red drum, sea trout, snook, snappers grouper, yellowtail, mahimahi and baiffish. The course includes practical experience in broodstock capture, handling, acclimation and feeding. Other topics include production of live feeds, larval husbandry, fish hatchery management, fundamentals of nutrition, bioenergetics, grow out methods and disease prevention and control.

### **Aquaculture Systems and Applications for Educators**

Aug. 13-14

From maintaining an aquarium in the classroom to culturing a small crop for a science or vocational agriculture class, aquaculture can be a useful educational tool for today's outcome-oriented classroom teacher. Topics will include principles of recirculation, system design, water quality parameters, species selection, feeding strategies and harvest methods. Educators will be able to work with the staff to develop aquaculture options for their curricula, including sunshine standards and school-to-work programs.

### **Design, Fabrication and Construction for Aquaculture**

Aug. 27-29

This two-day workshop will train the participant with the basic principle needed to build, modify or design an aquaculture system. Demonstrations and hands-on activities will include: general PVC construction, assembling biofilters and pumping stations, fabrication of airlifts, upwellers, downwellers and sieves, and use of gravity for water flow and drainage.

### **Shellfish Farmers' Workshop**

Oct. 10-11

This two-day workshop is designed to update existing clam industry producers of the most recent culturing techniques, marketing strategies and government regulations for the hard clam.



## **Aquaculture Species for the Tropics**

Nov. 19-20

Participants will explore the potential opportunities and the most recent scientific findings of tropical aquaculture species, including spiny lobsters, queen conch, sea turtles, sponges, ornamentals and seaweed.

## **Penaeid Shrimp Hatchery Operations and Management**

Sept. 14-26

This 13-day course is designed for participants about to enter commercial shrimp hatchery development or those interested in improving efficiency and profitability of an existing hatchery. The course covers critical areas for successful shrimp hatchery operation, including site selection, system design, maturation techniques, spawning procedures, larval husbandry, feeding strategies, health and disease prevention. Topics on genetically improved stocks, marketing, and economic and production modeling will be covered.

For more information contact:

Megan Davis-Hodgkins

Aquaculture Center for Training Education and Demonstration  
Harbor Branch Oceanographic Institution

500 U.S. 1 North, Ft. Pierce, FL 34946 USA

Tel: 561-465-2400 or 1-800-333-HBOI, ext. 298 or 416

Fax: 561-466-6590; Email: mdavis@hboi.edu

Visit our web site: [www.aquaculture-online.org](http://www.aquaculture-online.org)

College credit available through Indian River Community College, inquire for details.

## **NSA New Member Announcement**

Innovative Material Systems Inc. of Olathe, KS has a product with potential for the clam and oyster operator. The IMS Versi-Dredge has been used successfully for cleaning shrimp farm canals, pump sites and seawater intakes. Another application is harvesting water hyacinths. The Versi-Dredge is self-propelled and works to a depth of twenty-two feet. At the WAS conference, many questions were asked by attendees as to the potential for harvesting bivalves. Based on questions at the conference, it appears that the IMS Versi-Dredge may be ideal for the harvesting application. Additional investigation by IMS has already begun in conjunction with Harbor Branch Oceanographic Institute for improving harvesting efficiency and documenting environmental compatibility.

Innovative Material Systems welcomes questions and comments from the business and research communities about the Versi-Dredge and its potential in shellfisheries. Contact Lee Lippert at (904) 744-3400 (phone); (904) 745-5319 (Fax) [lrpt@mediaone.net](mailto:lrpt@mediaone.net) (email) or the factory at (913) 829-2900 (phone), (913) 829-2989 (Fax) or [imsdredge@aol.com](mailto:imsdredge@aol.com).

## **Northeastern Aquaculture Mailing List**

A new Internet-based mailing list has been launched to further communication between NRAC and the aquaculture industry it serves. The NE Aquaculture Mailing List is an unmoderated, subscribers only, mailing list hosted by NRAC at the University of Massachusetts at Dartmouth. NRAC will use the mailing list to announce matters of interest to aquaculture producers and suppliers, researchers, regulators, extension agents and others. This will include grant and other funding information, technical information, workshops, meetings, and legislative activity.

The list is also for the industry and its support community to exchange any and all information that is pertinent to NE aquaculture. There are other mailing lists that may be more appropriate for technical discussions like AQUA-L, ALGAE, CRUSTACEAN etc. A list of these with subscription information is posted on NRAC's web site. Classifieds will be accepted by INDIVIDUALS seeking or offering a particular piece of equipment for sale - though commercial advertisements will NOT be permitted. Employment posts are certainly OK.

If you're interested in NE aquaculture and have email access - PLEASE SIGN ON TO THE LIST. Simply follow the instructions in the adjoining box. If you can't figure it out or can't be bothered - just email a note to me ([davidberg@earthlink.net](mailto:davidberg@earthlink.net)) to subscribe you to the list (or fax me your email address.)

If you don't have email access - you should. If you own a computer, even a dinosaur, you can buy a fast modem for under \$100 and get a FREE EMAIL package from either [juno.com](http://juno.com) (800-654-5866) or [hotmail.com](http://hotmail.com) (ask a friend to email them for info). Both of these firms are legitimate, totally free and supported by advertising. Regardless of where you live in the US, email access is usually a local and brief phone call away. If you need more information, call or fax the NRAC home office - they'll send off a fact sheet.

Following are some suggestions to make use of the mailing list more productive and positive for all members. These suggestions were taken from a message that Rutgers University's Carol Martin Rutgers sent to members of the AQUANET mail list. My thanks to her for writing such clear mailing list instructions - I've changed the specifics to be used for NRAC's list.

1. Please sign your messages. Unsigned mail can be a problem to those who wish to respond privately to a writer. Your "signature" should include your name, address, phone/FAX number, and e-mail address.



2. The NRAC list allows you to send messages to all network members, as well as to individuals. **HELPFUL HINT:** Use the **REPLY** function of your mailer if you want to send a message to the **AUTHOR** of a piece you are reading (the individual who wrote the message received by the list members). If you wish to send a message to **ALL THE MEMBERS OF THE LIST**, initiate a new message to [nrac@lists.umassd.edu](mailto:nrac@lists.umassd.edu) (use your **SEND OR COMPOSE** function rather than your **REPLY** function).

3. It is important to learn when to send messages to everyone (using the [nrac@lists.umassd.edu](mailto:nrac@lists.umassd.edu) address) and when to use private mail (using an individual's electronic address). Please send messages privately if any of these situations exist:

A. "Hi, David! Glad to see that you are still spreading confusion over the Internet!"

B. "Yes, I will keep the appointment." (e.g., If the clinic's office sends a message about a scheduled appointment and you need to respond, **DON'T** reply to the entire list—unless for some reason you want everyone who is a member to know that **YOU'RE** going to the clinic.)

C. "I'm not sure what your last message meant." (Remember that someone may have posted a message to the group between the one to which you are referring and your response.)

4. It is always appropriate to send messages to all NRAC'ers (using the [nrac@lists.umassd.edu](mailto:nrac@lists.umassd.edu) address) when:

A. You wish to initiate a discussion or to contribute to an on-going discussion.

B. You are requesting materials/information from anyone involved in the situation you describe in your message.

C. You wish to express appreciation to a large number of members for their assistance to you.

5. Use the NRAC list to discuss anything and everything related to northeastern aquaculture. It was set up to foster discussion and collaborative efforts.

6. You do not have to be an active participant of this listserv. You may, if you wish, choose to simply read the messages that are posted to the list and then save or delete them. If for some reason, you do not want to be a participant in this listserv at any time in the future, please send a quick e-mail to [requests@lists.umassd.edu](mailto:requests@lists.umassd.edu) with **unsubscribe nrac** in the body of the message.

7. You may know of other people who would like to participate in this forum and would like to become a member of the NRAC list. Simply ask them to send an e-mail to [requests@lists.umassd.edu](mailto:requests@lists.umassd.edu) with **subscribe nrac** in the body of the message.

Thanks to all of you who have already participated. If you have any problems sending to the list or with list content, please let me know. If none of this makes sense, but you think you'd like to sign up because you're a joiner - call/fax me. If you have questions on NRAC's web site, the Internet, shellfish culture, or the mysteries of life, email David L. Berg, president, Cultured Aquatics Corporation ([davidberg@earthlink.net](mailto:davidberg@earthlink.net)) or call/fax 516-385-2420.

**TO SUBSCRIBE TO THE NE AQUACULTURE MAILING LIST:**

send email to:

[requests@lists.umassd.edu](mailto:requests@lists.umassd.edu)

in the body of the message type:

**subscribe nrac**

**TO UNSUBSCRIBE TO THE NE AQUACULTURE MAILING LIST:**

send email to:

[requests@lists.umassd.edu](mailto:requests@lists.umassd.edu)

in the body of the message type:

**unsubscribe nrac**

**TO POST MESSAGES TO EVERYONE ON THE LIST:**

send email to:

[nrac@lists.umassd.edu](mailto:nrac@lists.umassd.edu)

**TO CONTACT THE LIST ADMINISTRATOR FOR CONTENT AND OTHER SUBSCRIBER INFORMATION:**

send email to:

[davidberg@earthlink.net](mailto:davidberg@earthlink.net)

call or fax David Berg:

516-385-2420 (voice/fax)

Dr. Kim E. Harrison

Executive Director

Northeastern Regional Aquaculture Center

<http://www.umassd.edu/specialprograms/nrac>

***Visit the NSA Web Site  
for the latest updates***

***<http://www.shellfish.org>***



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