

National Shellfisheries Association

QUARTERLY NEWSLETTER

JUNE 2005

WALDOBORO, MAINE



President's Message

This is my inaugural column as President of NSA. During our last business meeting, I was officially installed as your President for the next two years. As mentioned at that meeting in Philadelphia, PA, my principal background is in the physiology and aquaculture of crustacean species but over the past 6 years I have conducted research on mollusk (abalone) and echinoderms (sea urchins) concentrating specifically on nutritional physiology. It is an honor to be leading NSA, an organization with a rich history and tradition. I am fortunate to have a group of dedicated individuals who were either elected or graciously accepted to serve in positions on the Executive Committee and other committees. Not many votes separated the candidates for each position in this year's election, a situation that is characteristic of most NSA elections because the candidates who agree to run have such diverse and outstanding records of service to NSA. This year, Dave Bushek was elected President-Elect (leaving his position as Treasurer), Leroy Creswell was elected Vice-President, Chris Davis was elected Treasurer, and Karolyn Hansen was elected Member-at-Large. With the election of Chris Davis to Treasurer, the position of Newsletter Editor became vacant. Chris has done an outstanding job in providing timely and diverse information in the newsletter. Evan Ward has graciously agreed to take on this important responsibility and from my previous experience working with Evan, I know that our ever popular newsletter is in good hands and we can probably expect some new approaches to the dissemination of information to NSA members through this important vehicle. Sandy Shumway becomes Past President, an office that has a myriad of responsibilities. In addition, Sandy will continue as Editor of the Journal of Shellfish Research. All of the membership continues to benefit from her years of dedicated service to consistently producing a product that offers members an incredible cross section of shellfish research. Did you know that approximately 70 % of the articles published in *JSR* in 2004 were submitted by authors outside of the United States? I am confident that these competent and dedicated



Passing of the presidential gavel from Sandy Shumway to Lou D'Abramo at the Annual Meeting.

individuals as well as holdover members of the Executive Committee and those working on committees will serve the membership well.

There are a lot of exciting things happening. The NSA Website continues to be improved so that many services can be conveniently and rapidly offered to our members and non-members who visit the website. Soon to be available will be the on line ability to download manuscripts from current issues. There will be a charge

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In this issue:

- ***Student awards***
- ***Images from Philly***
- ***Industry updates***
- ***The Recruits***

Past-President's Message

Well, now that Philly is a very pleasant memory and I assume the duties of Past President, I'd first like to thank Danielle Kreeger, Gef Flimlin, Susan Ford and Dave Bushek for making the meeting an academic, social and, I'm delighted to say, financial success! It takes a lot of time and effort well before the meeting and even more so during the year leading up to a meeting. Dee was terrific in handling all the last-minute details and disasters, and choreographing the 90th birthday cakes for Mel Carriker and Sheridan Press (and thanks to Gef who noted the spelling error in the frosting before the cakes were served). We all owe this team a great debt of gratitude. Hopefully they will all be able to attend next year's meeting, put their feet up and enjoy the show.

Thanks also to all the folks who donated items for the auction and to the team of dedicated money-grabbers led by Dave Bushek who kept it all straight as the party continued around them (though from some of the photos, it appears they had their own party going on!).

Leroy Creswell, our new Vice President, will be serving as the Program Chair for Monterey and has already assembled an impressive list of special sessions. Some of these sessions are already sponsored and we will be financial assistance to cover others. Soliciting outside funding for our annual meeting is crucial if we are to become more solvent and ever have any hope of reducing the cost (or eliminating!) page charges. Another way is to find sponsors for publication of special issues (e.g. Harmful Algal Blooms, Proceedings of Abalone Conferences, Perkinsus and the upcoming Lobster Disease issue). If you have an interest in organizing a session or theme topic for publication or just an idea that someone else might follow up, contact the Editor or the Publications Committee.

NOW is the time to start planning for Monterey in 2006. Give some thought to organizing a session, giving a paper and encouraging a colleague to attend the conference. Paul Olin and Susan Schlosser have already made a great start on the meeting and you'll be hearing from them in the next issue of the Newsletter.

During the upcoming year, there will be a number of committees working to better NSA. Lou D'Abramo has assembled a strong slate of volunteers for our standing committees. There will also be an ad hoc committee of the Past Presidents Committee convened to investigate ways in which NSA might reduce (eliminate??) page charges and increase our endowment. John Kraeuter and Vic Kennedy have already agreed to serve as co-chairs and other participants are being recruited.

While we are currently on solid financial ground, the continued publication of the Journal of Shellfish Research and the

financial security of the Association are dependent upon continuous and diligent efforts on the part of your EXCOM and the membership. George Abbe works with the Treasurer to keep us fiscally responsible – it would be nice if they have more money to worry about! If you have any thoughts or suggestions on these matters, they will be most welcome.

Finally, congratulations to all the newly elected officers and thank you for agreeing to serve. Lou has a good team and has assembled a strong group of committee chairs - the NSA is in very good hands - but, there is always room for another volunteer! If you are interested in helping out in any capacity (e.g. committees, reviewer, meeting, student judging, fund raising) let one of the members of the EXCOM know – we need your assistance.

Looking forward to another prosperous year,

Sandy

Recruits Corner

Thank you Recruits!!

The meeting in Philadelphia went very well and we had outstanding student participation and attendance. I would like to thank everyone that worked at the Sales Booth, the Auction, and AV, especially those students that generously volunteered their time even without getting a student endowment award (remember to apply next year). We raised a good deal of money for the Student Endowment Fund and that will benefit us students in the future. It's never too early to start thinking about Monterey! I think that the special student session "Making the Journal: an Interactive Publishing Workshop" went really well. It was meant to be a session designed by students for students – so if you have any feedback, please send it my way. I would like to thank my co-organizer for the special session – Dane Frank.

Speaking of Dane, he is joining me as co-chair of the Recruits. Dane has really dedicated himself to NSA and the student section for years and I am very happy to have him share the duties of providing a voice for NSA's student members. You will hear from Dane in upcoming newsletter articles and please feel free to get in touch with him (and me too!) with comments or compliments about the Recruits (his contact info should be on the back cover soon). We especially welcome your suggestions about next year's special student session; right now we are thinking about FUNDING as a topic. Welcome aboard Dane!!

Those of you that attended the Making the Journal session will remember Sandy Shumway announcing the formation

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Philly Meeting Reflective

The 97th Annual Meeting in Philadelphia has come and gone, and I am delighted to report that it met or exceeded our usual success criteria. Attendance topped 240 people, which was not a record for a mid-Atlantic meeting, but was a fine showing considering the current restrictive climate for travel by many government employees and visitors from other countries. There were more than 150 scientific presentations, including dozens of fine student presentations. I will defer to the Treasurer's report for a final tally, but I am also led to believe that this meeting did generate a healthy profit.

In my experience, NSA meetings tend to be much more memorable than other scientific conferences, often not because of the program but because of other activities and exploits (see below). I'm sure that many of us will not soon forget the fabulous President's Reception, with John Ewart's band playing hot blues and rock, a superb raw bar arranged by Gef Flimlin and the Rutgers shucking crew (special thanks to Gef and Susan Ford!), and other fine foods and amenities supplied by the DoubleTree Hotel. The DoubleTree deserves special recognition for going above and beyond the call all week to try to make our group as happy as possible – whatever we needed they supplied in an instant.

Thanks to Ken Chew, the Chinese Banquet on Monday night attracted a record number of 134 people to Philly's own Chinatown. Ben Franklin (aka Sandy Shumway) made a dramatic appearance to the tune of John Philip Souza on Tuesday night, going on to raise a substantial

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President's Message... continued from page 1.

for this service. Older issues of *JSR* will eventually be available at no fee. Thanks to Scott Siddall of the Longsight Group and LaDon Swann for their efforts last year to make the website a user-friendly and current source of important information. Watch for many other new additions that are part of NSA's service to its members. Please note that the website will not be available from about mid-June to mid-July to incorporate many of the long awaited improvements.

The planning of the 2006 meeting in Monterey, California, is well underway. Please take a few minutes to check the NSA website to obtain ongoing updated information about the Monterey meeting which is already poised to be a fantastic success. Currently, there are several confirmed special sessions and, in an effort to attract more members from industry, there will be a special industry-oriented session. Joth Davis, Gef Flimlin and Rick Karney who again will co-chair the Industry Committee will be involved in this undertaking. If you have an idea about a special session, contact Leroy Creswell who is the 2006 Program Chairman. The President's reception, a longstanding event of the meeting, is slated for Sunday, March 26, and will be a "not to miss" happening within the beautiful Monterey Bay Aquarium. A special thanks to Julie Packard for making this exciting event possible! Please begin to make plans for the Monterey meeting now! It's not too early. The dates are Sunday through Friday, March 26 through 31.

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The Past-Presidents of the NSA gathered together for luncheon at the Annual Meeting in Philadelphia.

Audit-Budget-Finance Update 2005

Total revenues for the 2003-04 fiscal year (October 2003 through September 2004) were \$187,797 and expenses were \$212,067 for a decrease of \$24,270 to our overall balance, which ended the year at \$88,060 including more than \$33,000 in Student Endowment Funds. Although our overall balance has decreased each of the last three years, adjustments are being made to help restore some of the losses.

Administrative revenues and expenses for 2003-04 were \$42,243 and \$16,512, respectively, for an increase of \$25,731. Publication revenues were \$134,440 and expenses were \$178,805 for a decrease of \$44,365. And revenues from Aquaculture '04 in Honolulu were \$5,080 while expenses were \$15,074 for a decrease of \$9,994. The loss from the meeting in Hawaii was particularly troubling since the triennial meetings are typically money generators. However, a number of factors reduced attendance and thereby revenue, which prevented all parties involved from covering the fixed costs of the meeting. We had projected a gain of roughly \$24,000 from that meeting, but saw a loss of almost \$10,000, creating a swing of about \$34,000.

The proposed budget for the 2005-06 fiscal year, which begins October 1, 2005 projects a gain of \$32,215 for administrative activities, a decrease of \$33,900 for publications, and a gain of about \$1,700 from our annual meeting which will be in Monterey in late March 2006. If these revenues and expenses are realized, the NSA balance will increase by \$15. We are cautiously optimistic, however, that we will have a better year than forecast. Because the *Journal of Shellfish Research* is our most important product, and because it is expensive to produce with the quality we expect and receive, we realize that its production cost will generally exceed publication revenues. Administrative Revenues (primarily Member Dues) and Meeting Revenues help subsidize these excess costs.

NSA financial ledgers were examined in late 2004, but not in the same detail as when the books move to a new treasurer. When Dave Bushek passes the financial books to our new Treasurer Chris Davis later in 2005, we will examine them in detail. Although our balances have declined in recent years, our financial condition remains solid. With recent adjustments made to improve our revenue stream, the financial strength of NSA should improve.

George Abbe
Audit-Budget-Finance

Congratulations are in order...

The **Thurlow C. Nelson Award** for best student oral presentation at the 97th Annual Meeting in Philadelphia went to Severine A. Patat of the Medical University of South Carolina for his talk titled "Histones from the Pacific white shrimp, *Litopenaeus vannamei*, have antimicrobial activity." Two **Honorable Mention Awards** went to Peter C. Thompson of the University of Maryland for his talk "Genetic Structure in *Perkinsus marinus* populations of the Southeastern United States" and to Susan E. Pate, North Carolina State University, for her talk on "Impacts of the toxic dinoflagellate *Alexandrium monilatum* on four ecologically important shellfish species."

The **Gordon Gunter Poster Award** went to Vincent G. Encomio for his presentation on "Variation in Hsp70 Isoform Expression in the Eastern Oyster due to Season and Infection with *Perkinsus marinus*." H  l  ne H  garet from the University of Connecticut received an honorable mention for her poster presentation on "Potential Transport of Harmful Algae through Bivalves."

Become a Grow-Out!!!

Thanks to Nature McGinn and Dane Frank for organizing a fun and informative session on "How to publish a paper in the *Journal of Shellfish Research*" with a discussion of the peer-review process.

In an effort to start training good reviewers at an early stage in their career, Sandy announced at the end of her presentation that a new group, THE GROW-OUTS, is being formed. The group will include upper-level graduate students who are interested in the publication process and willing to try their hand at reviewing manuscripts. If you are interested in participating, contact Sandy.

**SPECIAL THANKS TO THE FOLLOWING
SPONSORS OF THE 97th ANNUAL MEETING IN
PHILADELPHIA!!!**

Sheridan Press

Delaware Sea Grant

*Rutgers University
Institute of Marine and Coastal Science*

Delaware Bay Discovery Project

Carriker Castagna Student Grants Awarded

The National Shellfisheries Association is pleased to announce that the third annual **Michael Castagna Student Grant for Applied Research** has been awarded to **Scott Gifford**, a Ph.D. graduate student in Biology at the University of Newcastle, Callaghan NSW, Australia. Mr. Gifford's award will be used in support of his thesis research titled "Influence of pollutants on pearl quality in the Akoya pearl oyster, *Pinctada imbricata*." This competitive research grant is named in honor of the late Michael Castagna, a distinguished and long-serving member of NSA who consistently invested heavily in student development throughout his career. The grant awards \$1000 for non-travel expenses associated with graduate research by a student member of the association. Nine applications were received for the Castagna competition during this round of the awards.

We are also pleased to report that the seventh annual **Melbourne R. Carriker Student Research Grant** has been awarded to **Daniel Spooner**, a Ph.D. graduate student in Zoology at the University of Oklahoma. Mr. Spooner's award will be used in support of his thesis research titled "Eco-physiology and ecological function of freshwater mussel assemblages in southern streams." This competitive research grant is named in honor of Professor Carriker, one of NSA's most distinguished Past-Presidents and current societal Historian. The grant award is given to one student NSA member \$1000 for non-travel related expenses associated with undertaking graduate research. In recognition of her strong application, an Honorable Mention for the Carriker Award is also being given to Helene Hegaret of the University of Connecticut for her proposal titled "Trophic interactions between molluscs and harmful algae: immune response and carriage of cysts and cells in biodeposits." Ten applications were received for the Castagna competition during this round of the awards.

I want to thank the students (and students' advisors) for your active participation in this year's student research awards competition. The overall calibre of the proposals was the highest we've seen and all of these students are to be congratulated for their efforts. In 2004 we received applications from only three students, but in 2005 the competition was very strong with 19 proposals to review. The reviewers therefore had a challenging task, and I thank David Bushek, Sandy Shumway, Lou D'Abramo and Jay Parsons for their help in reviewing all applications.

The next opportunity to apply for both research grants will be the fall of 2005. Application details will appear in the NSA Newsletter as well as at the NSA web site.

Danielle Kreeger

EPA Sewage 'Blending' Proposal Thwarted!

In late May, the House of Representatives voted overwhelmingly to block the Environmental Protection Agency from finalizing its so-called 'sewage blending' proposal, which would have allowed sewer operators more latitude on when they could release partially treated sewage into the nation's waters. A few hours before the House passed a bipartisan anti-sewage dumping amendment to an appropriations bill, the EPA announced its decision to drop the controversial policy. Faced with the prospect of an embarrassing defeat in the House, the EPA and its congressional allies had no choice but to wake up and smell the sewage. They finally got the message that people want less, not more sewage in the water they drink, the rivers where they fish and the beaches and lakes where they swim. With this victory, Congress delivered a strong message reminding EPA that its mission is to protect our health and environment. The ECSGA and PCSGA worked with the Natural Resources Defense Council, Clean Water Action, American Rivers and the League of Conservation Voters in a unique collaboration that brought business people who make their living on the water together with environmentalists who share the common goals of preserving the water quality of our nations coasts and reducing illness due to waterborne diseases. Together we were able to mobilize enough pressure to force our public officials to do the right thing. Robin Downy of the PCSGA and Bob Rheault of the ECSGA spoke in January at an NRDC-sponsored hearing in Washington DC. We explained the issue to a standing room crowd of congressional aides trying to make them understand the potential impact of the EPA's proposed rule to relax sewage dumping. This resulted in a letter co-signed by over a hundred Congressmen and women opposing the EPA's plan. The issue was high on our priority list as we visited with our congressional delegations, and letters and phone calls from constituents kept pressure on our legislators despite heavy pressure from administration operatives who wanted to justify cutting the budgets for state sewer infrastructure improvements. In May a bill was submitted to block the EPA's proposal and it was gaining steam when, finally, the blending policy was killed when an amendment to EPA's appropriation bill to cut funding to implement the blending policy passed overwhelmingly. To any of you who wrote a letter or made a phone call or sent an e-mail; Thank you! You deserve a pat on the back. This was an important win for shellfish farmers. Keep those phone numbers handy, there are sure to be more battles to fight.

Bob Rheault
President, ECSGA

Pacific Coast Section Report

The 58th annual meeting of the Pacific Coast Section of the National Shellfish Association (NSA-PCS) was held October 13-15, 2004 in Tacoma, Washington. The meeting/conference was held in conjunction with Pacific Coast Shellfish Growers Association (PCSGA). Fifty-eight presentations were given at the conference, with theme sessions for Water Quality, Shellfish Management, Assessment, and Disease, Geoduck Management and Culture, Abalone Restoration, Crustacean Management, Shellfish Safety, Marketing and Export Regulations, Genetics, Shellfish Aquaculture, and Burrowing Shrimp Control.

Eight student presentations were made at this year's conference. The research and quality of the student papers continued to be of highest caliber. Two NSA-PCS Student Paper Awards were given at this year's conference. Individual awards were given for best undergraduate and graduate student papers. Ford Evans (Oregon State University) won the Graduate Student Paper Award for his paper: *Effects of Genotype-Environment Interactions on Oyster Yield*. Cyrus Ma (University of Washington) won the Undergraduate Student Paper Award. Cyrus's paper was *cultured Geoduck Gonad Area*. Support funding for students presenting papers at the meeting is provided through the Ken Chew Student Fund. The fund provides conference registration, hotel rooms, publishing costs for abstracts in the *Journal of Shellfish Research*, Banquet tickets, and Best Student Paper Awards. The fund is supported through a variety of fund-raising activities including student sponsorship, silent auctions, and other functions.

The NSA-PCS held its annual business meeting in conjunction with the conference on October 14. A total of 52 members and non-members attended the meeting. All NSA-PCS executive positions were carried over for another year including: Rich Childers (Chair), Don Velasquez (Vice-Chair) and Kelly Toy (Secretary/Treasurer)

The 59th annual meeting of the Pacific Coast Section of the National Shellfish Association (NSA-PCS) is scheduled for September 27-29, 2005 and will be held at the Best Western Inn at Hood River, Oregon. The first call for papers will be announced in February 2005. Proposed session themes include: Shellfish Disease, Shellfish Assessment and Management, Crustacean Management, Estuarine Ecology, Genetics and Hatchery Techniques, Shellfish Marketing, Water Quality. In addition, sessions on Geoduck, Abalone, Echinoderms and Mussels are also being scheduled. Registration information will be available on the PCSGA website (<http://www.pcsga.org>) and those interested in presenting papers at the meeting can contact Rich Childers (contact information on back page)

Richard Childers, Chair

Philly Meeting... continued from page 3.

sum as auctioneer for the annual fundraiser for the Student Endowment Fund. And following the auction, 18 of us received a special Philly treat as we strolled down Sansom Street in search of some dancing, being swept up in a dramatic car chase scene complete with car crashes and a searchlight-outfitted helicopter whizzing overhead (we swore we saw Cheech and Chong behind the wheel). Yes, each annual meeting of NSA has its own special flavor, and participants go home with a unique blend of experiences that they will remember for many years!

On Wednesday, the business luncheon was well attended and marked several notable transitions and accomplishments. The David H. Wallace Award was presented to Dr. Robert "Skid" Rheault. The Melbourne R. Carriker Student Research Grant was awarded to Daniel Spooner, a Ph.D. student in Zoology at the University of Oklahoma. The Michael Castagna Student Grant for Applied Research was awarded to Scott Gifford, a Ph.D. student in Biology at the University of Newcastle, Callaghan NSW, Australia. In addition, two landmark birthdays were acknowledged with gifts and cakes at the luncheon. Mel Carriker was treated with a cake recognizing his 90th birthday. And key executives and staff from Sheridan Press were treated to a cake recognizing their company's birthday and in honor of their long service to NSA as the publisher of *JSR*. The Sheridan Press crew attended the meeting en masse due to its proximity to their home office in Hanover, PA. Lastly, the Wednesday luncheon marked the transition of several key posts in our society's leadership, including president, treasurer, and others (see separate reports). It marked the end of my 6+ year term on the Board, and I was treated to an unexpected gift of a beautiful clock for my new office (thank you!).

Although the planning for Philly started more than 3 years ago, there was a tremendous amount of work completed in the 6-9 months preceding the meeting, and special acknowledgements are warranted. The local organizing committee was comprised of Dave Bushek, Gef Flimlin and Susan Ford. Dave was especially helpful in handling financial arrangements with the hotel and staffing the registration table during the meeting. Gef gets the credit for attracting sponsors and product donations. Susan, Gef and Dave all attended numerous meetings with the hotel to sort out menu selections and other details. Thanks also to John Ewart for his help by arranging the band and helping set up our special session. And last, but not least, I thank the ever-present and hard-working Sandy Shumway who helped keep me straight and attend to those important details that are easy to miss regarding both meeting planning and Past-President duties.

Danielle Kreeger

Recruits Corner... Continued from page 2.

of a new group within NSA. She would like to get the 'Growouts' going soon. The Growouts will be a group of upper level graduate students or recently graduated students going on to post-docs or beginning their careers. The purpose of the group is to involve its members in more aspects of NSA and to acquaint its members with professional skills and duties like reviewing papers (and others stuff they don't really teach you in school). Please contact Sandy Shumway for more information about the Growouts.

I look forward to hearing from all of you student members and seeing you at upcoming meetings. You should start thinking about getting to the Monterey meeting now. It may seem like too far for you folks on the East Coast, but you can get some really reasonable cross-country flights (believe me, I do it with some regularity) and low hotel rates (for Monterey or even compared with recent NSA meetings) have already been secured. And, we will be

having the President's Reception at the Monterey Bay Aquarium – you can't beat that! I would love to have really great student attendance and participation at next year's meeting – let me know what I can do to convince to come West. Finally, CONGRATULATIONS to the Nelson and Gunter Award winners for their great presentations at the Philly meeting and to the Carriker and Castagna Award winners for their outstanding research proposals. Thanks again to everyone for all your help at the Philly meeting!

Nature McGinn

Metamorphosis

Carter Newell recently defended his dissertation "The effects of seawater velocity and particle characteristics on the feeding behavior of the blue mussel *Mytilus edulis*" and received his Ph.D. from the University of New Brunswick in Saint John in May 2005.

Special Announcement

Cape Cod Cooperative Extension is proud to announce that the 2004 re-print edition of *The Works of David L. Belding, M.D. Biologist* is now available. Belding's studies of the Massachusetts' shellfisheries during the early 1900's are considered to be a masterpiece, and to this day remain the basis for many shellfish management actions. Last printed in the 1950's as single publications, the new 8.5 x 11" volume includes three of his works:

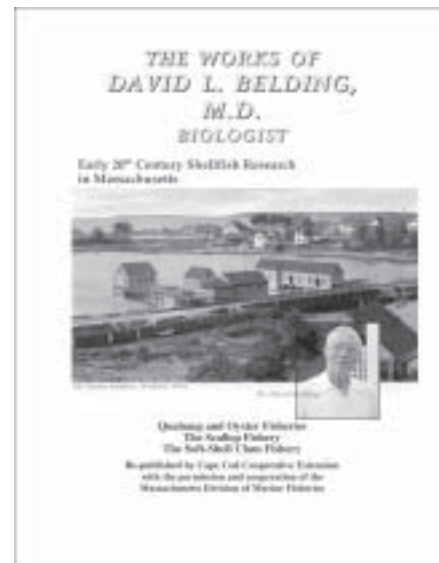
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Copies are available at the office of Cape Cod Cooperative Extension. Cost per copy is \$35.00, and can be ordered by calling William Burt at (508) 375-6702, or Barbara Conway at (508) 375-6697, or by email at wburt@umext.umass.edu. If by email, and when ordering from out of state, please include a zip code to where the book(s) will be shipped so we can determine S&H charges. Orders must be pre-paid before shipping! S&H cost for a single copy is \$5.00 when mailed within the local region.

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IMAGES FROM THE 97th ANN



ANNUAL MEETING IN PHILADELPHIA



ISSC Update

The Executive Board of the Interstate Shellfish Sanitation Conference met the week of March 7th. This was primarily a business, overseeing the business affairs of the organization, however there are a number of issues that may be of interest the shellfish community.

The biennial meeting of the conference will be from August 13 through 19th at the Marriott Grand Resort, Point Clear, Alabama. Registration for Biennial meeting will be \$400 for members if registering before the July 15, 2005 deadline (\$450 for non-members) and \$ 500 after the deadline. Membership is \$50 for individuals. After the deadline registration will be \$500 for members and \$550 for non-members. In the effort to attract new industry members, the Conference is again making available three free registrations for each ISSC Region.

The International Conference on Shellfish Safety will meet August 10th to 12th at the Marriott, Point Clear, Alabama. This is week before the Biennial meeting of the Interstate Shellfish Sanitation Conference, Alabama. See http://www.masgc.org/issc_icmss/ for details.

FDA will move ahead with plans to conduct a retail study to examine Vp levels in oysters. This information will be useful in reviewing the predictions made by the Vp risk assessment. There will also be an effort to analyze samples for viruses. This will allow a review of the program relative to the level of protection against viral illnesses.

There was general recognition of the benefits of oyster gardening. Oyster gardening has many benefits such as building awareness of coastal ecosystems and helps to build understanding and acceptance of aquaculture, however, it presents many challenges to public health regulators. A group will work to put together guidance that can be used by the states.

The *Vibrio* Management Committee reported to the Executive Board that the *Vibrio* management plan was on track to achieve the stated illness reduction goals. It was pointed out that one of the reasons for this is the impact of the California ban on the sale of non-post harvest processed oysters from the Gulf of Mexico from April to October.

On a related, but separate topic, a study will be performed to determine the economic impact of the California regulation.

As the Board was meeting there was a *Vibrio parahaemolyticus* outbreak ongoing in Chili. As of March 15th there were 10,396 cases reported from southern Chili. The illnesses are linked to mussels and clams, both raw and undercooked. Oysters have not been implicated. The U.S. has an M.O.U. with the United States for the export of shellfish, primarily scallops. Chili maintains two levels of water quality, one for areas from which shellfish are shipped to the U.S., and the other for shellfish to be consumed domestically. Chili issued instructions that residents should cook the shellfish before consuming.

Lori Howell

New Link for Shellfishermen

The Industry Committee of NSA is starting to produce a yearly Report to Industry. This listing will include the titles of papers published in the *Journal of Shellfish Research*, of presentations at the NSA Annual Meeting and of posters from that meeting which have an "applied" focus to them. These selected items will be listed with the authors and the address of the primary author so that shellfishermen interested in the information in those papers could contact the people who did the research for more information. Those interested could also contact their local extension agent or specialist for a copy of the article or actually join NSA and receive *JSR* with the rest of the members. It is planned to have this Report to Industry placed on the NSA, East Coast Shellfish Growers Association, and Pacific Coast Shellfish Growers Association websites. It will also be distributed to shellfish extension agents by email so that they could also distribute it electronically to growers or harvesters in their particular state.

We hope that this new form of communicating research results will be a two way street in that potential users will have better access to the information and researchers might also hear back from those who are impacted by their work.

For more information contact Gef Flimlin (flimlin@aesop.rutgers.edu), Joth Davis, (jdavis@bainbridge.net) or Rick Karney (mvsg@capecod.net).

Invoices for 2006 NSA dues will be mailed in mid-October. If your Winter issue of this *Newsletter* doesn't arrive in January, it's because your dues have lapsed! (Membership probationary periods have been discontinued.)

President's Message... continued from page 3.

During the last EXCOM meeting, several important issues were discussed. Of particular concern is the cost of page charges for the *Journal of Shellfish Research*. We are looking into strategies to reduce page charges significantly while still maintaining a healthy financial situation for NSA. Jay Parsons is also involved in issues related to NSA publications. Membership over the past few years has essentially remained level or slightly decreased. As a result, we are determined to increase membership by at least 200 members. As co-chairs of the Membership Committee, Gef Flimlin and Bill Walton have pledged to work diligently and lead this effort to realize our goal. This is an area where all members can make a contribution by simply recruiting one individual. As part of my remarks after being installed as NSA President, I asked members who attended the business meeting in Philadelphia to pledge that they will successfully recruit one member to NSA before the 2006 annual meeting. This small effort will yield important dividends because additional members will allow current services to continue at reasonable costs.

NSA remains committed to our student members for whom we hold much pride. This year, the coveted Carriker and Castagna awards were awarded to Daniel Spooner, University of Oklahoma, and Scott Gifford, University of Newcastle, New South Wales, Australia, respectively. Mr. Spooner's award was in support of investigations into the physiology and ecology of freshwater mussel assemblages in southern streams. Mr. Gifford's award supported his research into the role of pollutants on pearl quality of the Akoya pearl oyster. I encourage more students to apply for these awards. Watch for deadlines! Maureen Krause and Ryan Carnegie, as co-chairs of Awards and Endowment Committee are committed to establish and maintain a thorough and fair review of the papers and posters presented by the student members at the annual meetings. Nature McGinn and Dane Frank will be leading of Student Recruits and are planning a special session on "student funding" at the Monterey meeting.

Regretfully, increasing operational costs combined with provision of new membership services led to a nominal increase in dues (\$10) for 2006. However, NSA's membership dues still remain quite reasonable when compared to those of other societies, particular when examined from the level of services provided. The obvious bargain of annual membership dues is a very good selling point to use to attract new members. Despite the ever increasing costs, we are committed to meet the 21st century needs of the membership through our varied services. Particularly over the past few years, concern has been expressed over the cost of attending an annual meeting. I want to assure you that the Executive Committee is cognizant of the financial demands of attending scientific

meetings and has made every effort to keep costs low based upon airfares to certain cities, hotel accommodations, and registration fees. At times, it may seem that there is insensitivity to the limitations of the travel budgets of members. There are a lot of variables that must be considered in planning a meeting and be assured that keeping costs down is a priority.

Members of NSA remain indebted to the efforts of Marty Chintala as she enters her second year as Secretary. The three members-at-large of the Executive Committee, Karolyn Hansen, Richard Karney, and Jonathan Davis continue to serve as the voice of the membership and to participate in a variety of activities. George Abbe continues as chairman of the Audit Budget and Finance Committee. At the 2005 annual meeting, George was recognized for his 20-plus-year commitment as watchdog over NSA finances so that revenues are in line with expenditures, and financial implications and impact of decisions are closely scrutinized. Gregg Rivara has volunteered to take over the ever-important position of historian which was vacated by Mel Carriker after many years of service that culminated with the publication of the *Taming of the Oyster*. And finally, NSA continues to be indebted to Nancy Lewis for her daily operational activities associated with her position as bookkeeper.

Be proud to be a member of NSA and participate by submitting articles to *JSR*, attending annual meetings, soliciting new members, seeking contributions to sponsor NSA activities, and volunteering to serve on committees. It won't be long before NSA will be celebrating its 100th golden anniversary in Providence, Rhode Island. Imagine 100 years! Not too many societies can claim such a distinction and all of us should be proud of our organization and the impact that it has had on the shellfish industry from its beginnings in North America to throughout the world.

Lou D'Abramo

Help Lower JSR Page Charges!

The Publications Committee has placed high priority on finding ways to reduce page charges in *JSR*, which are now \$100 per page. The addition of just a few new institutional subscribers would help greatly. If your college or university does not currently subscribe to the journal, let us know. Also, if you live in a region where shellfisheries are an important commercial activity, let us know about your local public library. Don't forget to include places that emphasize the environment or history such as local museums. Please send the name, address and contact information for each organization to John Kraeuter (kraeuter@hsrl.rutgers.edu).

What's Eating Cultured Shellfish?...

... Just about everything was the answer heard at a workshop entitled, *Management of Shellfish Predators* organized by Bill Walton, Fisheries and Aquaculture Specialist, to help industry members improve shellfish aquaculture production. About 40 shellfish growers met with extension agents and scientists at the Workshop held at the Massachusetts Maritime Academy in Buzzards Bay, MA on this past February 12th. The large and enthusiastic turnout on a sunny Saturday is testimony not only to the importance of the issue, but to the rapport Bill has established with his stakeholders.

The meeting began with short presentations by Bill Walton, Gregg Rivara and Dale Leavitt describing the 'Rogues Gallery' of local predators – crabs, snails, ribbon worms, starfish, polychaetes, birds and humans– followed by the presentation of case studies by Bill Dewey of Taylor Shellfish Company in Washington and Chip Maran from Hampton Shellfish Co. in New York. Bill won the prize for greatest distance traveled and presented a fascinating account of his on-going battles with predators and a video presentation showcasing his novel planting and harvesting techniques (Rube Goldberg had nothing on Bill and his tulip bulb planter-potato harvester combine!). Discussion took place throughout all the presentations and lunch provided another opportunity for lively discussion. There was a pool table in the lunch room, but I couldn't find any takers.



Two more case studies were presented after lunch, the first by Andrew Cummings of Wash-A-Shore Oyster Ranch in Wellfleet, MA, and the second by Jeff Gardner, Shellfish for You of RI and VA. I found Andy's information to be among the most intriguing and exciting of the day. Working in collaboration with the extension agents and funding from the Southeastern Massachusetts Aquaculture Center, he designed and carried out a project to demonstrate the use of copper sheeting to keep oyster drills out of his oyster bags. Simple, practical and it works – for off-bottom bags. Moreover, it shows how important it is to support these field research efforts by growers and to foster collaborations between scientists and farmers.

I was especially delighted to hear so many references to the tried and true methods and published references of the past,

and ready recognition of the contributions of many of our leading pioneers in shellfish biology. During the introductory remarks it was announced that the Belding Reports have been reprinted by the Cape Cod Cooperative Extension and a sample copy was available (see ad on p. 14). The information in these reports is as timely today as when they were written in the early 1900s and, while some of us have originals, they are rare commodities and not readily loaned! Frequent references were made to the early work of Mel Carriker on boring gastropods and to the contributions of Dana Wallace, Walter Welch, Mike Castagna, Cary Matthiesson and Ken Chew. Not a molecular probe in the house!

The closing discussion session included a panel of 'experts' and was highly interactive and informative. Predation is a difficult, costly and complex problem for shellfish growers. Luckily, the meeting was dominated by growers, not scientists, and there was plenty of free exchange of information, anecdotes and first-hand knowledge and advice. There were near as many 'issues' and 'remedies' (or woeful lack thereof)

as there were participants. Bob Whitlatch, University of Connecticut, was invited to share his expertise and insights on predators in the benthic realm and I think it's safe to say that he and I both learned as much as we may have offered. Watch future newsletters for a story on spider crab predation on oysters!

The workshop, put together by a consortium of Woods Hole Sea Grant, Cape Cod Cooperative Extension, the Southeastern Massachusetts Aquaculture Center and the Massachusetts Department of Agriculture Resources, was sponsored by the Northeast Regional Aquaculture Center. Two other sessions of the predator workshop (funded by NRAC), were held at the Milford Aquaculture Meeting and later in the spring at the Darling Marine Center in Maine. Future workshops are planned by the consortium for fouling and pest species and for shellfish diseases. I for one am looking forward to them.

Sandy Shumway

What Does the Northeast Shellfish Aquaculture Industry Want?

In a 2004 survey of licensed shellfish aquaculturists in Massachusetts (conducted by a consortium of state extension agencies), shellfish farmers were asked to identify training and research topics most relevant to them. A full 28% of the 274 licensees in the state responded, describing their operations as small (2 acre median) farms raising primarily oysters or quahogs (hard shell clams).

In terms of training, respondents indicated a strong interest in learning techniques for managing predators, pests and diseases, as well as crop management (densities, survival assessment) and innovative gear. Additionally, growers wanted to be more familiar with insurance available to them, marketing tools and strategies, available funding and wholesale requirements. What scored lowest? Employee management, computer skills and basic biology and ecology topics fared worst.

In terms of research that growers say that they would like to see, respondents listed research into improved field performance the top research priority. Closely following that were: improvement of predator and pest management, assessment of the effects of water pollution and development on shellfish aquaculture, improvement of disease management, and determination of the effects of increased shellfish production on survival and growth. To be fair though, even the lowest ranked research topics were no lower than a 3 (out of 5)!

Importantly, respondents see their industry growing; almost 75% plan to increase their production beyond current levels. Given this potential growth and the continuing challenges faced by this industry, shellfish aquaculture will certainly rely on well-conducted, pertinent research.

Bill Walton

Attention Students!

The FALL DEADLINE for Carriker and Castagna Research Awards will be posted on the NSA WEB page. Start thinking about your proposals now and watch for an updated set of instructions and judging criteria.

“Dismal Failures” Session an Unexpected Success!

Enticed by Greg Rivara’s homebrewed beer being served at the podium, ten intrepid shellfish biologists put their professional careers on the line and vied for the coveted “Dismal Failure’s” award during a break from the more erudite sessions at the recent annual meeting in Philly. The speakers, some in disguises and others only providing alias names, presented to the panel of esteemed judges and an overflowing audience a series of brief talks on experiments and projects that went horribly awry. Titles such as “*Vibrio paranoia*”, “Offshore Aquaculture Initiative – How we were slightly ahead of our time” and “Planting Hard Clams in Iowa” aptly describe several of these entertaining talks. The winning talk, entitled “It Seemed Like a Good Idea at the Time,” described a noble attempt at reseeding a Cape Cod clam flat with nothing more than a few million veligers, an innovative larval containment system reminiscent of a ram shackled outhouse and a few old bed sheets. The speaker, who apparently wanted her identity to remain anonymous (given that she refused to remove her Groucho Marx mask) can be seen receiving her award in the accompanying photo. Word has it there will be another session next year in Monterey if the session organizers can persuade this year’s winner to part with her trophy and pass it along to the next year’s most deserving recipient.

Chris Davis



The first recipient (name withheld upon request) of the “Dismal Failures” award¹ graciously accepts the plaque from one of the judges (name also withheld upon request).

¹ Editor’s note: The award reportedly broke apart into many pieces soon after being bestowed upon the winning speaker. (So much for hot-glue!)

Electronic Measuring Boards: Improving Scallop Research in Tasmania, Australia

The development of an electronic measuring board by the Tasmanian harsh environment electronics company SciElex Pty Ltd has proven to be invaluable for scallop research in Tasmania. The Tasmanian Aquaculture and Fisheries Institute scallop research team recently field tested the board, and found it to be an excellent product, allowing extensive field sampling to be conducted by one person in a quick, efficient and accurate manner; with further time, labour and accuracy savings back in the office, as data did not have to be entered.

A very rugged measuring board, it is made of stainless steel and polycarbonate and suited for harsh environments and tough applications. It may be used for measuring and recording of data on shellfish, however it can be easily modified to measure tail fork on finfish. The board is rated to IP66 so can be thoroughly washed. Holes, crevices and corners have been minimised to facilitate cleaning and reduce contamination risks. The display shows the current length, sample number as well as one of four user defined labels. A press of a button stores the data.

Specifications:

- suitable for measuring and logging abalone, scallops and other shellfish
- measures and stores length 0–220mm

- records index, length, date, time and 4 user-defined parameters
- 1mm accuracy and resolution
- sealed to IP66
- easy-to-read LCD display
- 316 marine grade stainless steel and polycarbonate material
- digital output for use with other logbooks or displays
- powered from internal rechargeable battery (15 hours continuous use) or from external supply
- Mitutoyo SPC (digital vernier) Output
- optional GPS lat/long recording with each sample
- data stored in non-volatile flash memory (more than 16,000 sample capacity)
- setup and download via USB to PC. Cable and software supplied
- industrial grade, high linearity, low temperature shift measurement sensor



For further information visit: www.scielex.com.au
or send an email to: info@scielex.com.au.

The Fisheries Department of the Food and Agriculture Organization of the United Nations (FAO) has published a manual on: "*The Hatchery Culture of Bivalves: A Practical Manual*" which is currently available.

This manual is a synthesis of current methodologies pertinent to the intensive hatchery culture of bivalve molluscs. It encompasses both the similarities and differences in approach in rearing clams, oysters and scallops in different climatic zones. All aspects of the culture process are described, together with basic considerations in choosing a site for hatchery development and in the design of a suitable facility. It also includes the post-hatchery handling of larvae in remote setting and also of spat in both land- and sea-based nurseries. This document is intended to assist both technicians entering the field as well as entrepreneurs researching investment opportunities in bivalve culture.

Interested parties can request information and order copies by contacting the Organization at Publications-Sales@fao.org or Mr. Lovatelli at alessandro.lovatelli@fao.org or by visiting http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/007/y5720e/y5720e00.htm



Upcoming Events

6th International Crustacean Congress: July 18-22, 2005, University of Glasgow, Scotland, UK. For more information, visit <http://gla.ac.uk/icc6> or phone +44 (0) 141-330-5969 or email neil@bio.gla.ac.uk.

Aquaculture Europe 2005: August 5-9, 2005 in conjunction with Aqua Nor 2005, August 9-12 in Trondheim, Norway. For more information, email ae2005@aquaculture.cc.

Workshop on Molluscan Shellfish Safety: Integration of Science and Policy for Vibrios and Viruses: August 10-12, 2005, Grand Hotel Marriott Resort, Point Clear, Alabama. For more information, visit http://www.masgc.org/issc_icmss>http://www.masgc.org/issc_icmss.

Training Program on the Care, Handling and Use of Aquatic Animals (CHUAA): August 22-26, 2005, Charlottetown, PEI, Canada. For more information, visit <http://www.upei.ca/fishcarecourse>.

Larvi 2005: September 5-9, 2005, Ghent University, Ghent, Belgium. Following up on the previous larvi symposia (1991, 1995 and 2001), the scope of larvi 2005 is to present the latest developments and challenges in the various disciplines of larviculture research. For more information, visit <http://allserv.ugent.be/aquaculture/larvi/index.htm>.

59th Annual Meeting of the NSA Pacific Coast Section and the PCSGA: September 27-29, 2005, Hood River Inn, Hood River, Oregon. Abstracts are due no later than August 1. For more information, contact Richard Childers at childrkc@dfw.wa.gov or visit <http://www.pcsqa.org>.

8th International Conference on Shellfish Restoration: October 2-5, 2005, Brest, Brittany, France. This year's theme will be "Enhancement and Sustainability of Shellfish Re-

sources." Abstracts are due April 30, 2005. For more information, contact either Jeanne Moal (Jeanne.Moal@ifremer.fr) or Philippe Soudant (Philippe.Soudant@univ-brest.fr) or Aswani Volety (avolety@fgcu.edu). You may also visit <http://ifremer.fr/icsr05> for more information on this meeting.

6th International Abalone Symposium: March 12-16, 2006, Puerto Varas, Chile. Contact Pete Haaker at phaaker@dfg.ca.gov for information.

National Shellfisheries Association 98th Annual Meeting: March 25-31, 2006, Monterey Marriot, Monterey, CA. Contact Paul Olin at pgolin@ucdavis.edu for more information.

AQUA 2006: Linking Tradition and Technology: May 9 - 13, 2006. Fortezza Da Basso Convention Centre, Florence, Italy. For more information, contact Mario Stael at mario.stael@scarlet.be.

Restore America's Estuaries 3rd National Conference: December 9-13, 2006, Hilton Riverside Hotel, New Orleans, Louisiana. The Conference theme will be "Forging the National Imperative for Restoration." For more information, please contact Steve Emmett-Mattox at sem@estuaries.org.

Aquaculture 2007: February 26 - march 2, 2007, San Antonio Convention Center, San Antonio, Texas. For more information, contact the Conference Manager at worldaqua@aol.com.

If you would like to announce a meeting, conference or workshop that might be of interest to NSA members, please contact Chris Davis (see back page for contact information).

It's time to plan for "Oceans of Shellfish" at the 98th Annual Meeting in Monterey March 25 - 31, 2006

Special Sessions

Non-indigenous species and fouling - Bob Whitlatch and Sandy Shumway,
QPX - Roxanna Smolowitz
Marketing - Bill Walton

Student Funding - Nature McGinn
Sea Urchin Aquaculture and Fisheries - Susan Schlosser
Abalone - Pete Haaker and Ian Taniguichi

If you would like to organize a special session, contact LeRoy Creswell before August 1, 2005.

Abstracts will be due December 1, 2005

International travelers should be aware of recent passport and visa restrictions needed to enter the US and plan accordingly.

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