

# National Shellfisheries Association

QUARTERLY NEWSLETTER

SEPTEMBER 2008

ORONO, ME



## President's Message

### What are you doing for NSA?

Summer is always a busy field season for anyone working on shellfish. So as summer 2008 draws to a close and transitions into fall, I hope that you have found some time to enjoy the season and accomplish whatever objectives you had set for yourself. It may appear that NSA activities stop or slow down during summer, but this is a false impression. The day to day business of NSA continues throughout the year with our various committees working on routine tasks and new assignments provided at the annual meeting or as issues arise. You've witnessed this activity through receipt of the third and fourth issues of JSR, Quarterly Newsletters, and announcements about plans for the 101st Annual Meeting in Savannah March 22-26, 2009. We all benefit from these and other activities through the efforts of dedicated volunteers.



As a result of Sandy Shumway's diligent work ethic, we've already seen four issues of JSR this year! Mark Luckenbach and Rich Lutz volunteered to serve as guest editors for the two special issues you have received on *C. ariakensis* and deep sea hydrothermal vents, respectively. Evan Ward completed his service as Newsletter Editor and Paul Rawson has graciously volunteered to take the reins with this current issue, which is packed with useful information — thanks Paul, and the rest of you, read on and enjoy.....

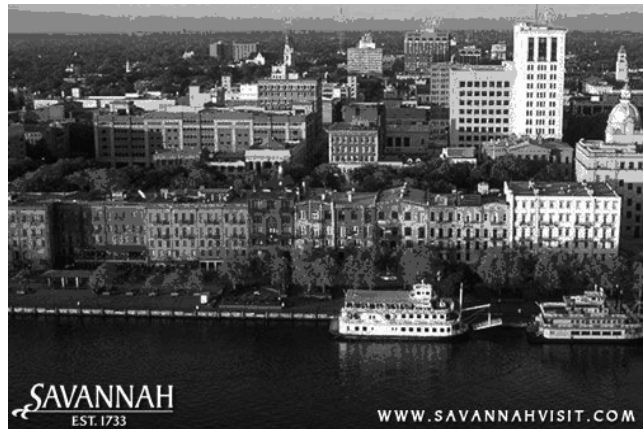
In addition to thanking Sandy and Evan for their efforts, please join me in congratulating both of them for winning a 2008 APEX Award for Publication Excellence – a testimony to their hard work and the quality of their work. We are fortunate to have them serve in these capacities.

Plans for the 101st Annual Meeting are falling together quite well thanks to the efforts of Lou D'Abramo (Organizer), Leroy Creswell (Program Chair) and Randy Walker (Local Arrangements) and we are also fortunate to

have such a capable team planning and organizing our next meeting. See the meeting info on pages 2 and 3 of this Newsletter.

Many others have been working behind the scenes on other matters. Karolyn Hansen and John Ewart have been maintaining info on the Web Portal and working on improving its interface with members and the public. Lou D'Abramo has been working with both the Past President's Committee and the Excom to develop a strategic plan that will help carry us into the future. Chris Davis has been

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*Make plans now to attend the 101<sup>st</sup> Annual Meeting in Savannah, GA March 22-26, 2009. For more information on the meeting and the Call for Abstracts see pages 2-3.*

### *In this issue:*

- *Annual Meeting Information*
- *Call for Abstracts*
- *Industry News*
- *Capital Campaign Update*
- *Special Ballot Information*
- *In Memoriam: Harlan Halvorson*

## **SAVANNAH 2009 - Where Southern Charm Awaits You!**

Savannah, Georgia is site of the 101st Annual Meeting of the National Shellfisheries Society. The meeting will be held March 22 - 26, 2009 at the Marriott Savannah Riverfront Hotel located along the Savannah River and within walking distance of historic downtown Savannah. Special hotel accommodation rates for the meeting are \$159 per night (single or double); a link for making hotel reservations through the NSA Website will be available soon.

The 101st Annual Meeting will begin on Sunday evening with the traditional President's Reception featuring seafood donated by producers in the region. Monday evening will feature a special off-site activity. An NSA Annual Meeting is not complete without everybody's favorite Student Endowment Fund Auction that will take place on Tuesday night and include heavy hors d'oeuvres while the NSA Business Luncheon is scheduled for Wednesday afternoon. The President's Reception, Student Endowment Auction, and Business Luncheon, as well as a continental breakfast each morning of the meeting and a happy hour during the poster presentations are included in the registration fee.

Savannah ranked among the Top 10 Cities in the U.S. and Canada in *Travel + Leisure's* World's Best Awards 2008 readers' survey. Late March is a wonderful time to visit Savannah when afternoon temperatures are generally in the mid to lower 70s and there is little to no precipitation. All types of activities await you in Savannah: riverboat cruises, ghost tours, carriage tours, art galleries, museums, antique shops, town squares and of course all types of restaurants, many featuring southern cuisine (see [www.savannah.com](http://www.savannah.com)). Savannah is known for its extraordinary Colonial and Victorian architecture and is home of the largest Landmark Historic District in the United States. Connected to the NSA conference hotel via the Riverwalk is the world famous River Street with an array of Savannah's favorite restaurants and pubs located in restored cotton warehouses offering casual to upscale dining experiences and live music during the evening. A free shuttle provides transportation throughout the Historic District and convenient service from downtown hotels to many historic sites. Tybee Island, perhaps the most laid-back location on the southeastern coast is a 20 minute drive east of Savannah, while Hilton Head Island, South Carolina is only 30 minutes away.

Savannah is accessible by commercial airline via the Savannah/Hilton Head International Airport. Shuttles from the airport to the meeting hotel are available for approximately \$15 one way and \$25 round-trip. Daily parking at the hotel is \$15 per day.

**Lou D'Abramo, Meeting Organization 2009**  
**Leroy Creswell, Program Chair**

## **Student Travel & Presentation Award Applications Due**

Applications for NSA Student Endowment Fund travel awards for the 101st National Shellfisheries Association meeting in Savannah, GA are due on **November 18th, 2008**. This is the same day that meeting abstracts are due. All NSA student members are eligible to apply, and award recipients may receive support for either lodging or meeting registration, depending on specified preference. All applicants will be eligible for the Thurlow C. Nelson Award for best student oral presentation, and the Gordon Gunter Award for best student poster presentation. We expect to provide at least twelve lodging awards and four registration awards this year. Application forms and instructions will be available on the Web at [www.shellfish.org](http://www.shellfish.org) by late September. Please contact us (Ami: [wilbura@uncw.edu](mailto:wilbura@uncw.edu); Ryan: [carnegie@vims.edu](mailto:carnegie@vims.edu)) if you have any questions.

As always, judges will be needed to evaluate SEF award application submissions. We encourage non-student NSA members interested in reviewing applications to drop us a line.

We look forward to seeing you in Savannah!

**Ami Wilbur**  
**Ryan Carnegie**  
**Student Endowment and Awards Committee**

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## **Metamorphosis**

Beginning September 1, 2008 our current Past-President Lou D'Abramo takes on the position of Dean of the Graduate School and Associate VP of Academic Affairs at Mississippi State University. Lou is the William L. Giles Distinguished Professor of Fisheries and Wildlife at Mississippi State University where his colleagues nominated him for the Ralph E. Powe Award, given annually to the MSU faculty member who has demonstrated significant career achievement in research. The Ralph E. Powe Award is the highest award given at MSU to recognize research excellence and was bestowed upon Lou last year. The MSU faculty must be pleased with Lou's decision to accept this new post. With new positions come new responsibilities so Lou would like us to know that he has made clear his commitment to NSA concerning his duties and responsibilities as Past President and as Organizer of the 2009 Annual Meeting. His Provost agreed that he needed to be sure to fulfill his commitment to NSA. So, although he will be moving into an administrative position, his commitment to NSA stands and will not be compromised. Congrats Lou, and best wishes in your new position!

# 101<sup>st</sup> Meeting of the National Shellfisheries Association

## Savannah, Georgia USA

### March 22 – 26, 2009

The program for NSA's 101st Annual Meeting will feature oral and poster presentations devoted to an array of topics related to shellfisheries science, management, and aquaculture, with particular focus on the southeastern United States. Many sessions will appeal to broad audiences such as the special session, "Shellfish and the Environment" that will kick off the first day of the conference. "Promises and Pitfalls of DNA-based Parasite Diagnostic Methods" is an example of sessions that will address more focused subjects. Regional issues will also be addressed in special sessions like "Blue Crab Biology and Fisheries". The Industry Committee has organized the popular "Out on the Water" (a repackaged version of "Down on the Farm") session that features an interesting selection of case studies and real life experiences from commercial shellfish farms. The Student Committee is planning its traditional session designed specifically for NSA's growing student membership...more to come later!

Other special sessions are being organized including those listed to the right and additional ones are likely. Visit the NSA Website for the latest info. If you are interested in presenting at any of the specials sessions, OR organizing a session on a topic of your (and your colleagues') interest, please contact LeRoy Creswell, Program Chair, [creswell@ufl.edu](mailto:creswell@ufl.edu).

## CALL for ABSTRACTS

Abstract submission via the Website will open mid-September (approx. Sept. 15th). **ALL ABSTRACTS ARE DUE NOVEMBER 18, 2008** and must be submitted electronically through the NSA website ([www.shellfish.org](http://www.shellfish.org)). No abstracts will be accepted after November 18, 2008. No abstracts will be accepted via fax transmission. If you are unable to submit an abstract using the NSA Website or have any questions about abstract submissions, please contact LeRoy Creswell, Program Chair ([creswell@ufl.edu](mailto:creswell@ufl.edu)).

### Current List of Special Sessions (more to come!)

- Shellfish and the Environment
- Population Biology and Genetics of Spiny Lobster and Stone Crabs
- The Threat of Human and Shellfish *Vibrios*
- Re-emergence and Impacts of *Vibrio tubiashii* and Related Pathogens on Shellfish Production
- Promises and Pitfalls of DNA-based Parasite Diagnostic Methods
- Shellfish Genetics and Genomics
- Introduced and Invasive Species
- Blue Crab Biology and Fisheries
- Managing *Perkinsus*
- Shellfish Restoration and Enhancement
- Molluscan Physiology and Autoecology
- Economics of Shellfish
- Crustacean Health Management
- Crustacean Shell Diseases
- Archeomalacology
- Environmental Stressors
- Out on the Water: Industry: Activities and Perspectives
- Hard Clam Population Dynamics and Culture
- Seafood Quality and Safety
- Recent Advances in Crustacean Fisheries
- Shell Formation in Molluscs



## NOMINATIONS SOUGHT FOR OFFICES FOR 2009 ELECTIONS

The 2009 elections are scheduled to fill vacancies in the NSA offices of President-Elect, Vice President, and Member-at-Large. Nominations for these offices are welcomed from the membership. Please send names of nominees to the Chairman of the NSA Elections Committee, current Past-President Lou D'Abramo at [Ldabramo@cfr.msstate.edu](mailto:Ldabramo@cfr.msstate.edu).

## **President's Message...** Continued from page 1

tending to our finances while Joth Davis has been working on identifying a 2011 meeting site and a final push for the SEF Centennial Campaign (see Joth's article on page 15 of this Newsletter and please support this effort). Bill Walton has been attending to membership issues. Ryan Carnegie and Ami Wilbur are working to improve the student awards application and evaluation process, while Recruits' co-Chairs Nature McGinn and Dane Frank are planning student activities. While I could go on, the point is that there is a lot of work going on and more to accomplish. While this list is incomplete, I'm sure you know that the individuals leading these efforts don't accomplish these tasks completely on their own – they are volunteers and rely on other members like you to volunteer and help with your time and talent.

NSA is a volunteer-based organization and our only resource for volunteers is you, our members. Joining NSA and maintaining your membership is only your first step in supporting NSA. Voting for officers and on NSA issues is another important responsibility (see article on page 7 regarding the ballot issue for a new EXCOM Officer). But to function, NSA needs members to volunteer to serve. Hence, we are always in search of capable volunteers ready and willing to donate their time and talent to the needs of the association. In her own words, Sandy Shumway has written an op-ed column for this Newsletter describing the importance of volunteering and the responsibilities of volunteers. The point is that while volunteering is an act of generosity, it requires a real commitment of time and energy. Time is something that everyone values and is often in short supply, but, having volunteered for a variety of organizations myself (e.g., United Way, YMCA, local public recreation programs) including NSA, I'm always amazed at how far a little extra effort from a dedicated volunteer can help.

Please consider volunteering to help NSA. Volunteering is always time well-invested and the satisfaction of serving for the greater good is quite rewarding. So if you're asking yourself "why should I volunteer?", my answer is simply because it is satisfying to do useful work that benefits you, your friends, your colleagues and the field of shellfisheries. But there is more.....

People volunteer for a wide variety of reasons. Helping others is often at the top of the list, but many people want to know what's in it for them because of the time commitment involved. While some may think that obtaining benefits from volunteering is not a reason to volunteer, there are in fact many benefits that are inherent to being a volunteer. Volunteering can help you develop or learn new skills and make valuable career contacts. It can build confidence by increasing your self-esteem through the simple knowledge that you are making a positive contribution. It can provide you with a better

understanding of NSA, the community it serves and shellfish issues in general.

In many ways volunteering is an exchange of benefits. For example, by volunteering your time to work with the Annual Meeting Organizer or Program Chair, you may benefit by ensuring that a session is included on a topic that you want to see, or you may benefit by keeping costs down if you work with the Organizer to solicit financial sponsors or food donations. By volunteering to write a column for the Newsletter, you may benefit by highlighting research needs for an issue you face. By volunteering to review manuscripts in a timely and critical manner for JSR, you could help keep publication times short and also improve the quality of publications in JSR thereby elevating the status of JSR and benefiting yourself when you submit a manuscript.

So I encourage every member to volunteer and serve NSA in some capacity. How you ask? Well that is simple. First, consider the functions that NSA performs (publishing JSR and the Newsletter, hosting an annual meeting, soliciting and maintaining members, receiving and maintaining finances, providing travel, research and recognition awards, etc.) then identify an individual on the back of the Newsletter responsible for a function in which you can help and contact that individual. If you prefer, simply contact me and I'll help you identify a way in which you can contribute. NSA exists to serve us all and it can only provide services comparable to the resources that we collectively contribute. It's a simple relationship — the more time we all contribute, the greater the benefits that NSA can offer.

**Dave Bushek**  
**President**

**Do you know someone interested in shellfish research?**

**Pass on this Newsletter and recruit a new member today!**

**To join and stay informed, visit:**

**[www.shellfish.org](http://www.shellfish.org)**

# Volunteerism

**VOLUNTÂS** (Latin: will, free-will, wish, choice, desire, inclination); **VOLUNTAIRE** (French: spontaneous, intentional, deliberate, gladly, readily, willingly); **VOLUNTARIO** (Spanish: willful, of one's own volition); 自願者 (Chinese: a volunteer); **BOLAN-TIA** (Japanese: to serve voluntarily)

**VOLUNTARISM** - the principle or system of doing something by or relying upon voluntary action or volunteers; **VOLUNTEERISM** – the act of practice of doing volunteer work in community service

**VOLUNTEER** - a person who voluntarily undertakes or expresses a willingness to undertake a service



No matter how you spell it or what form it takes - the word means giving of your time and effort, and it is the backbone of every **VOLUNTEER**-based society, including NSA.

It does not mean: signing up for a task so that you can add a line to your resume or because you hope to see your name in lights (Sadly, in today's academic world, little if any credit is given for such activities). It does mean: helping to ensure the future of the society and perhaps having a bit of fun along the way!

In today's academic environment, **VOLUNTEERISM** seems to be a vanishing commodity. It means making personal sacrifices when jobs need to be done, it does not mean giving your time when it is convenient. Societies have timed needs, too! – and they are not necessarily timed to the academic calendar, granting agency deadlines or summer (winter) vacations. Publication deadlines, meeting preparations, and other activities and other deadlines all must be met regardless of other commitments on the part of the **VOLUNTEERS**.

**VOLUNTEERISM** can not mean replying to a request for assistance by saying 'I have a grant proposal deadline', 'I have a manuscript to finish', 'I'm going on vacation', 'I'm too busy teaching - get back to me at the end of the semester' – and most especially not when you have already taken on the responsibility of a committee or other activity. Remember, while you may not believe it, you are no busier than anyone else, and the business of running the society still needs to be carried out in a timely manner.

All **VOLUNTEERS** are not created equal and each individual will have talents better suited to some jobs than others. Just as examples: you might think being Treasurer and holding the checkbook is a glamorous job that you'd just love to do – but, it is one of the most important in the organization, requires at least a 3+ year commitment of

daily activity, and an ability to handle the money, and thus the position must be filled very carefully. The Newsletter Editor keeps the membership informed of activities, approaching deadlines and provides other material of interest - there was exactly one **VOLUNTEER** from the entire membership to fill the recent vacancy. Luckily, that one **VOLUNTEER** has the ability to take on the task at hand (THANK YOU, Paul Rawson!). The Vice-President is, by virtue of our Constitution and By-Laws, the Program Chair for the annual meeting (with the exception of Triennial conferences) - again, a position that requires considerable ability and a major commitment of time, and must be carefully solicited. The Webmaster position requires someone with the knowledge to maintain the WEB page and a commitment to doing so on a regular basis, especially with regard to posting time-sensitive material. Committees are vital to moving the society forward - these positions also require ability and a strong commitment to donate one's time. All of these positions require **VOLUNTEERISM** when needed, not when convenient.

While you may not end up doing the job for which you volunteered, you can still play a very active part in the organization, and your participation is a much needed commodity. You don't have to be a Committee Chair, Editor, or member of the EXCOM to **VOLUNTEER!**

You can **VOLUNTEER** to:

- help to judge student travel grants, proposals for research awards, and presentations at the annual meeting
- provide material for inclusion on the WEB page
- write an article for the Newsletter
- serve as a committee member
- review a manuscript for JSR
- help with annual meeting preparations
- organize a special session for the annual meeting
- recruit a new member

Don't wait to be asked (or begged) to **VOLUNTEER**. Think about NSA and how you can contribute and make known your willingness to serve by contacting the President, Editor of JSR, Program Chair or other appropriate committee member conveniently listed on the back of this Newsletter. Your time and talent are needed to help sustain NSA today and into the future.

**VOLUNTEERISM** – Try it, you might like it!

**Sandy Shumway**  
**University of Connecticut**



## Recruits' Corner

Summer is winding down and the fall semester is upon us. Once again, it is time to start thinking about what you will be presenting at next year's meeting in Savannah, how you will get there, and where you will stay. We highly recommend applying for a Student Travel Award that will cover either your registration or lodging! Apply when you submit your abstract. And don't forget to submit your best work to compete for either the Melbourne R. Carriker or Michael Castagna Student Research Grants, highly prestigious awards available only to student members. They come with a \$1250 cash prize, and if that isn't incentive, I don't know what is! The deadline for these research awards is **November 30, 2008**. You will find more information about applying for the Travel Awards and the Research Grants on the Recruits' Web page at: [www.shellfish.org/recruits.htm](http://www.shellfish.org/recruits.htm).



Nature and I are busy tying up loose ends as I end my time as Co-Chair of the student Recruits. As this will be my last Recruits' Corner message to you before I graduate, I would like to take this opportunity to thank Nature, with whom it has always been a real pleasure to work. I would also like to thank all those members of the Executive Committee that I have had the opportunity to work with during my time as Co-Chair for being so welcoming, and from whom I have learned a lot. If any of you out there are interested in becoming more involved in our terrific society and the opportunity to work with a great group of people and a fun and seasoned Co-Chair, please send an email to Nature at [namcginn@ucdavis.edu](mailto:namcginn@ucdavis.edu).

And as they say in Georgia "see y'all in Savannah!"

**Dane Frank & Nature McGinn**  
Student Recruits

## Pacific Coast Section Meeting Fast Approaching

Fun in the sun should be the motto of this year's Pacific Coast Section and Pacific Coast Shellfish Growers Association joint meeting October 1 – 3, 2008 in Chelan, Washington. The weather in the Pacific Northwest has been unseasonably cool and many attendees are hoping to catch a glimpse of the little golden orb on their trek to this inland Washington city.

A packed three day agenda brings together many researchers and industry members to share results and experiences. Keynote speakers for the meeting include Dr. Richard Feeley on Ocean Acidification: The Other CO<sub>2</sub> Problem; Dr Bill Peterson on Climate Change and Ocean Dead Zones; and Dr. Gary Wikfors regarding Concerns with Molluscan Shellfish Aquaculture: Questioning the Assumptions. A host of presentations are covered in the Down on the Farm, Genetics Research, Environmental Factors Contributing to Seed Mortality, Disease, Mortality and Pathogens, Invasives, Pests and Predators and Managing for Success sessions.

The annual business meeting and election of Pacific Coast Section officers will take place on Thursday, October 2 during a lunch meeting for members. Items for the annual silent auction to benefit the Ken Chew Student Endowment Fund are being accepted by Auction Chairs Randy Hatch and Kelly Toy. This endowment fund pays for student participation in the chapter meeting and helps the graduate student with the best paper presentation attend the National meeting. For a complete agenda and conference registration information check out the Section Website at <http://www.nsapcs.org/>.

Hope to see you in Chelan!

**Teri King**  
Pacific Coast Section Chair

## CONGRATULATIONS

The National Shellfisheries Association extends hearty congratulations to Sandy Shumway (JSR Editor) and Evan Ward (Newsletter Editor). The NSA should be doubly proud because BOTH The *Journal of Shellfish Research* AND the Newsletter have received 2008 APEX (Awards for Publication Excellence) awards. The APEX awards have been given annually for 20 years and this past year were based on 4,479 entries. The awards are based on excellence in graphic design, editorial content and the success of the entry in achieving overall communications effectiveness and excellence. Both Sandy and Evan received Awards of Excellence. JSR was in the category of Print Magazines and Journals of over 32 pages (837 entries) and the Newsletter was in the Print Newsletters category (490 entries). When you see either of these two individuals let them know you really appreciate the great jobs they have done.

**John Kraeuter and Susan Ford**  
Co-Chairs, Publications Committee



## Proposal to add the position of Association Financial Officer to the EXCOM

For more than two decades, probably longer, the Chair of the Audit-Budget-Finance Committee (ABF) has been asked to participate in all EXCOM meetings to provide advice on many matters that have financial implications for the association. Recognizing the valuable input typically provided by the ABF Chair and the likelihood that this person will continue to be invited to the EXCOM meeting, it was proposed that this position be elevated to the Executive Committee. After some discussion the motion **“to change the Constitution to create a position on the EXCOM for an Association Financial Officer (AFO; formerly the ABF Chair) as an appointed and voting member subject to ratification by the membership”** was unanimously passed. Any proposed changes to the constitution must be ratified “by a 2/3 majority of the voting membership, by a mail ballot, provided the membership shall receive written notice of such amendments at least sixty (60) calendar days prior to the deadline for voting.” This Newsletter serves as notification to the membership.

Ratification of this motion would elevate the position of ABF Chair to an Executive position in the Association. The ABF Committee is charged “to manage the financial affairs of the Association and to examine the financial report of the Treasurer before its presentation to the Association for approval.” No additional duties or responsibilities are proposed, but the AFO would be included on all EXCOM correspondence throughout the year and would be eligible to vote as part of the EXCOM. Presently, the Bylaws stipulate that the ABF Chair is appointed by the sitting President subject to approval by the EXCOM for a term of one year or longer at the discretion of the EXCOM. This process would not change and the AFO would not participate in EXCOM discussions or votes regarding the AFO appointment to avoid any conflict of interest. The EXCOM unanimously approved the motion so ratification now sits in the hands of the membership.

All members are requested to indicate their approval or disapproval of this motion on the ballot enclosed in their copy of the Quarterly Newsletter. Questions can be directed to the EXCOM via President David Bushek. Completed ballots should be returned to NSA Secretary John Ewart by November 30, 2008.



## MARK YOUR CALENDAR! AQUACULTURE 2010 San Diego, California, USA March 1-5, 2010

This is the Triennial meeting of the National Shellfisheries Association, World Aquaculture Society, and the Fish Culture Section of the American Fisheries Society. If shellfish are to figure prominently at the meeting, we need individuals to organize special sessions. If you are willing to organize a session, or if you have an idea for a session that you would like to see on the program, please contact Sandy Shumway (sandra.shumway@uconn.edu) soon.

## Carriker and Castagna Grant Applications

**DEADLINE NOVEMBER 30, 2008 !!**

The Melbourne R. Carriker Student Research Grant and the Michael Castagna Student Grant for Applied Research are two competitive grants awarded to students annually by the National Shellfisheries Association. Please note that award of each of these grants is based upon different criteria. The Carriker Grant recognizes excellence in scientific research in the area of shellfish biology, whereas the Castagna Grant recognizes excellence in applied research in the area of shellfish science. An applicant for the Castagna Grant is required to focus on the applied aspects of his/her shellfish research. **The award amount for each grant is \$1250.**

Students who meet the criteria can apply for both awards. However, separate applications ARE REQUIRED for each grant and must be appropriately designated. Use of the same proposal to apply for both grants will not be accepted.

Applications for both grants will be reviewed by the NSA Awards Committee, a standing committee chaired by the Past President. The deadline for proposals is the close of business (5:00 pm CDT) on **November 30, 2008**. Successful recipients will be notified no later than January 31, 2009. Please follow the on-line instructions available through the NSA Website under Student Research Grants [www.shellfish.org/grants.htm](http://www.shellfish.org/grants.htm). and send each application electronically to Lou D'Abramo, NSA Past President, as a pdf file attached to an E-mail. His E-mail address is [Ldabramo@cfr.msstate.edu](mailto:Ldabramo@cfr.msstate.edu)

# INDUSTRY REPORT

## New Oyster Harvest Rules Create Industry Challenges

New time/temperature oyster harvest regulations went into effect during this past June, based on the U.S. Food and Drug Administration's *Vibrio parahaemolyticus* (*V.p.*) risk assessment. The risk assessment and resulting control plan guidance template for state shellfish control authorities has been the topic of hot debate at the



Interstate Shellfish Sanitation Conference (ISSC), and at local docks and shucking houses. Shellfish harvesting states must include control measures in their regulations for months which (1) have *V.p.* illnesses of two or more in a three year period or, (2) the area was epidemiologically linked to an outbreak within the prior five years and the plan must also apply to the period 30 days prior to the first day of harvest associated with the outbreak and 30 days after the last day of harvest associated with the outbreak or, (3) the average water temperatures representative of harvesting conditions exceed 60°F for states bordering the Pacific Ocean and 81°F for states bordering the Gulf of Mexico and Atlantic Ocean (New Jersey and south). Control measures include: (1) post harvest processing, (2) closing the area to oyster harvest, (3) restricting oyster harvest to product labeled "For Cooking Only", (4) limiting the time from harvest to refrigeration to no more than five hours or other times based on modeling and sampling in consultation with FDA, and (5) limiting the time from harvest to refrigeration such that levels of total *V.p.* after completion of cooling to 60°F do not increase by more than 0.75 log units from levels at harvest. The term refrigeration is storage in a container that is capable of dropping and maintaining an ambient air temperature of 45°F. See [www.issc.org](http://www.issc.org) for more information.

In Louisiana, where the majority of harvest areas are distant from the docks, the five hour time limit from first harvest to refrigeration is proving to be a costly necessity. Retrofitting oyster harvest vessels that are 40 to 60 feet in length with dry refrigeration storage cost oystermen from \$24,000 to \$35,000 per vessel, based on a 24,000 to 60,000 BTU capacity. It is estimated that about 25% of the 800+ licensed oyster vessels are large enough to install refrigerated coolers on the deck of their boats. Small vessel operators without the deck space for on-board refrigeration are caught in a regulatory squeeze and may be left out of harvesting oysters for the live, raw, half-shell market, being relegated to tagging oysters "For Cooking Only" or "For Post Harvest Processing Only". Since the promulgation of

the above state guidance template by most states, the FDA has reversed its position on, and no longer concurs with, the adoption of "For Cooking Only" labeling of oysters as a control measure, as stated in a July 8th letter to the ISSC.

Current *Vibrio* research addresses the topic. A 2007 LSU study found icing commercial harvests of oysters can keep *Vibrio* levels from rising post harvest, but gaping after 7 days cold storage is over twice that of non-iced oysters, making the method unacceptable. A companion North Carolina State University study found total *V.p.* numbers in oysters sampled quarterly in Louisiana over the past two years generally support the risk assessment's predicted levels, but strain pathogenicity was <1%; the *V.p.* populations in those oysters were mainly non-pathogenic strains.

Such regulations increase the value of productive oyster leases or reefs that are located in approved shellfish growing areas and are also a short distance to the dock, where refrigerated trucks await landing. Increased seed and/or cultch planting are expected in these areas to improve logistics and help cope with the increased cost of doing business. In fact, during the writing of this article, a harvesting closure is being enacted due to confirmed *V.p.* illnesses being traced to the consumption of raw oysters from Delaware Bay. This closure, and the promulgation of the new rules, makes *V.p.* the talk of the docks.

**John Supan**  
Chair, Industry Committee

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## Larval Mortalities Plague West Coast Oyster Hatcheries

Widespread mortalities of Pacific oyster larvae, *Crassostrea gigas*, have been plaguing hatcheries on the west coast of the US for the past several years. These mortalities have typically been attributed to the bacterium *Vibrio tubiashii*. Despite being fatal to larvae, the bacterium does not affect adult oysters and is not harmful to humans. Although *V. tubiashii* was first identified in the 1960's by the U.S. Bureau of Commercial Fisheries in Milford, CT, problems affecting shellfish production on the Pacific coast appear to have surfaced only in the last 10 years or so.

Ralph Elston of AquaTechnics has been researching *V. tubiashii* since 1998 when the first major die-offs of oyster larvae were observed in Oregon hatcheries. At the time, it was hypothesized that increased pathogen numbers were associated with nutrient-rich waters resulting from an increase in the intensity of coastal upwelling. In 2005, another large larval oyster mortality event was identified at

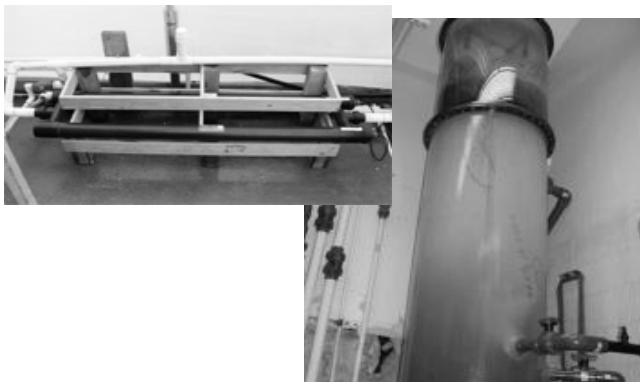
Continued on page 9



## Larval Mortalities . . . . continued from page 8

Oregon State's Hatfield Marine Science Center, which houses the Molluscan Broodstock Program (MBP). In response, Chris Langdon and Alan Barton designed and installed a complex filtration system including UV light, biofiltration, and the re-introduction of non-harmful bacteria to the system. These modifications appear to have been highly beneficial.

In the following year, however, the current crisis began to unfold. The four major hatcheries on the west coast which produce the bulk of the seed for west coast growers are: Whiskey Creek in Tillamook, Oregon; Coast Seafoods and Taylor Shellfish located in Quilcene, WA; and Lummi Shellfish Hatchery on Lummi Island, just west of



*New equipment at the MBP hatchery provides for UV irradiation and fine filtration of incoming seawater in response to problems from *V. tubiashii*.*

Bellingham WA. The Whiskey Creek Hatchery on Netarts Bay in Oregon was particularly hard hit by larval mortality in 2006. Faced with possible closure, they hired Alan Barton to install and operate a filtration system similar to the one that was employed at Oregon State. Whiskey Creek received help from shellfish growers in the region to fund Alan Barton's position and, though the hatchery had to close down temporarily for cleaning and the installation of the system, they were operational for most of the 2008 season.

Unfortunately, 2008 proved to be another difficult year for the industry. While Coast Shellfish Hatchery was able to fill all the orders they received this year, the Taylor and Whiskey Creek Hatcheries have been unable to do so. Although the new filtration system is up and running at Whiskey Creek, they are not up to full capacity and this year the hatchery was further affected by low pH. The addition of a buffer system appeared to help alleviate this problem; however, these additional events indicate that the larval mortality issue is complex and bacterial removal alone may not completely solve the problem.

The problem has gained the attention of various governmental agencies and public offices. For example, Oregon State Senator Betsy Johnson recently convened a meeting of several government agencies, U.S. Senators and the Oregon Governor's office to discuss the situation and the State of Oregon has pledged funds to help expand the filtration system of Whiskey Creek. Interestingly, even though initially *V. tubiashii* was fingered as the cause of larval mortalities, it does not appear to be the sole culprit for mortalities that have occurred in 2008. That was the conclusion of a special meeting that was convened by NOAA's Aquaculture Program in late August in Olympia, Washington. The meeting was a gathering of representatives from commercial and tribal shellfish interests, diagnostic laboratories, and government and academic researchers. The purpose of the meeting was to identify the problems directly affecting growers, and to identify targeted research areas that might allow control of *V. tubiashii* as well as investigate other causes of larval shellfish mortality. Additional meetings have been scheduled to address the larval mortality issue including a special session entitled 'Environmental Factors Contributing to Seed Mortality' to be convened at the upcoming joint NSA Pacific Coast Section/PCSGA (see page 6). This session will include leading researchers and roundtable discussions. In addition, the conference will include keynote speakers who are experts on ocean 'dead zones' and ocean acidification which are also thought to be influencing larval mortalities.

So, what is the take home message? According to Robin Downey, "*Vibrio tubiashii* is one of the causes of seed mortality but it's only a piece in the overall environmental puzzle. It's critical that we tackle this problem from that larger perspective in trying to understand the multiple layers of dynamics that are at play in terms of ocean chemistry, temperatures, and pathogens. There is also a need to have a better understanding of the host (oyster seed) and to better understand what factors make it susceptible to pathogens or ocean conditions."

For more information on this issue, you can reach Robin Downey of the PCSGA at [robindowney@pcsga.org](mailto:robindowney@pcsga.org) or Kevin Amos of NOAA's Aquaculture Program at [Kevin.Amos@noaa.gov](mailto:Kevin.Amos@noaa.gov).

**Lisa Milke**  
**NSA Reporter**

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## Book Review

**Histological Techniques for Marine Bivalve Mollusks and Crustaceans** by Dorothy W. Howard, Earl J. Lewis, B. Jane Keller and Cecelia S. Smith. NOAA Technical Memorandum NOS NCCOS 5.

In 1983, Dorothy Howard and Cecelia Smith, histology technicians at NOAA's Oxford Laboratory in Maryland, published a handbook of "Histological Methods for Marine Bivalve Mollusks". It contained 97 pages of background information, black and white illustrations, and instructions for the preparation of tissue-section slides from several commercially important bivalves. For many years, it was the manual of choice in shellfish histology laboratories. Two decades later, the same authors, joined by Jay Lewis and Jane Keller have produced a stunning, 218-page full-color update. All of the original chapters have been expanded and several new ones added, each with a good selection of references and most with excellent color photographs. With the present-day emphasis on molecular diagnostic techniques, this volume is a reminder of the power that histological methods afford for the visual identification and description of parasites and pathological conditions.

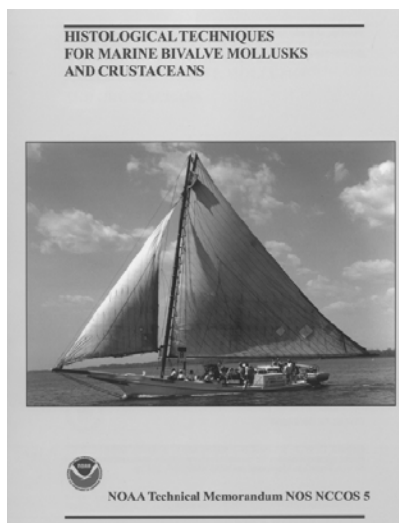
Molluscan histologists are fortunate in one respect: a number of different organs can be included in a single section through their subject. But where should that section be taken? Chapter 3 (Necropsy and Examination of Shellfish Specimens) provides answers for oysters, clams, mussels and scallops. Before a section is taken, however, a visual examination of the specimen is usually desirable. The authors provide a written description along with exceptional color photographs of a myriad of parasites, and pathological or otherwise anomalous conditions visible macroscopically on shells and soft tissues. Photos of some of these conditions have never been published before. Also included, with photos, are important fouling organisms and predators. The chapter concludes with species-specific photographs and clearly labeled diagrams on how and where to take sections of mollusks, how to dissect a blue crab, and how to process bivalve larvae for histology.

Although most routine staining of molluscan tissue sections is with hematoxylin and eosin (H & E), many other stains have been formulated that are specific for certain tissues, cells, or organelles. Chapter 8 (Staining) provides recipes and step-by-step instructions for 29 stains and includes tables cross-referencing stains and their specific targets. Elegant color photomicrographs illustrate the

results produced by the stains. Fixatives also have specific applications, which are listed in Chapter 5 along with formulae and instructions. Additional chapters describe embedding, sectioning, and coverslipping – all well illustrated with photographs of each step in the procedure. Each of these methods chapters includes a section on "Problems and Resolutions" that will surely come in handy to novice histologists – and very likely to some old hands, too.

In a sign of the times, Chapter 1 on "Safety" has been expanded from a half page in the 1983 edition to 5 pages in the current volume. Many of the chemicals used in histology are hazardous and need to be handled and disposed of using much more careful protocols than were followed 20 years ago. This chapter provides a summary of general safety procedures and lists the health hazards and chemical terminology of common chemicals found in histology laboratories. Instructions on how to collect, hold and ship live specimens is found in Chapter 2 while Chapter 14 outlines a miscellany of procedures, including decalcifying specimens and fluid thioglycollate medium (FTM) culture for *Perkinsus spp.* It offers suggestions for extracting material from paraffin blocks and tissue slides and processing it for transmission and scanning electron microscopy. Almost anyone who has worked in a histology laboratory will appreciate the protocol for rescuing and transferring sections from a broken slide. Appendices include a table of "US/Metric Conversions", a section on "Laboratory Calculations", and examples of record sheets.

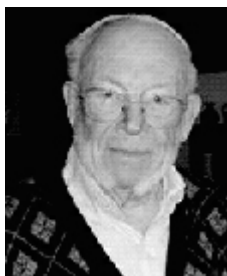
Four new chapters have been written by members of the Oxford Laboratory staff on their specialities. Austin Farley has a chapter on "Histocytology", the study of parasites that can be detected and quantified in the hemolymph. It outlines methods for extracting hemolymph from the adductor mussel, making and staining slides, and staging infections according to the numbers of parasites present. Gretchen Messick describes sampling and examination of hemolymph from blue crabs, and also includes a table listing signs of disease and their (possible) etiological agents. She describes an interesting method for observing parasites of juvenile crabs in vivo. Their carapace is sufficiently thin that transmitted light will allow observation of internal structures, including circulating parasites – thus permitting continuous monitoring of parasites without sacrificing the crab. Shawn McLaughlin



Continued on page 11

## In Memoriam Harlan O. Halvorson 1925 - 2008

Dr. Harlan Halvorson, an internationally respected research scientist, director emeritus of the Marine Biological Laboratory (1987-1992) and ardent supporter of aquaculture in Massachusetts and the U.S. aquaculture industry passed away at his home in Woods Hole, Massachusetts on June 17, 2008. Dr. Halvorson experienced a long and distinguished career as a scientist and scholar in numerous fields including chemistry, microbiology, microbial ecology, biochemistry, marine biotechnology and marine aquaculture policy development.



He served as the Director of the Policy Center for Marine Biosciences and Technology at the University of Massachusetts Boston. Dr. Halvorson was instrumental in the establishment of the center in 1992 to facilitate collaboration among researchers, government officials and policymakers to address a broad range of problems, issues and opportunities in the marine biosciences and in particular the development of aquaculture and marine biotechnologies.

Dr. Halvorson's leadership and involvement with the Center's Sea Scallop Working Group, created in 1994 to explore in more depth the policies necessary to promote scallop aquaculture in Massachusetts, led to issuance of the first permit for aquaculture in federal waters. More recently Dr. Halvorson was actively involved in a multi-institutional and multi-disciplinary research effort coordinated by the Center for the Study of Marine Policy, University of Delaware to develop a policy framework for offshore aquaculture in the U.S. Exclusive Economic Zone (EEZ).

Harlan Halvorson firmly believed that the public is best served when policy decisions are based on sound, scientific information and a broad consensus. He was an advocate for the importance and economic contribution of aquaculture to coastal communities and he dedicated his efforts and influence to foster communication and consensus on the issues among environmentalists, scientists, coastal industries, public groups and local, state and federal officials. His important contributions to this ongoing process and his support for the shellfish aquaculture industry will be sorely missed.

**John Ewart**  
University of Delaware

## Book Review..... continued from page 10

writes about methods for the diagnosis of softshell clam parasites and diseases, with emphasis on the detection of *Perkinsus spp.* and neoplastic cells in hemolymph. Earl "Jay" Lewis has a chapter on miscellaneous techniques that includes detailed descriptions of the diagnostic signs of Juvenile Oyster Disease (now Roseovarius Oyster Disease). Jay also describes methods for the detection of two human pathogens that have been found in and on oysters: *Cryptosporidium* and *Giardia spp.*

This volume is a necessity in any shellfish histology laboratory, but I would also recommend it to others working in the field of shellfish biology for its excellent illustrations of parasites and pathological conditions that have become such important research topics in recent years. I would especially urge molecular biologists to have a copy on hand to juxtapose visualization of parasites with the bands on their gels.

This beautiful book would be well worth purchasing, but it is free of charge, although a shipping fee may apply. Contact the Librarian (Susie.Hines@noaa.gov), NOAA/NOS Cooperative Oxford Laboratory, 904 South Morris St., Oxford, MD 21654, USA for information.

**Susan Ford**  
Haskin Shellfish Research Laboratory  
Rutgers University

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## A Note from the (New) Editor

As I take over the reins of the NSA Newsletter, I would like to thank Evan Ward and Chris Davis, who provided me with invaluable guidance during the production of this, my first edition. Evan, Chris and the Editors who served before them, have all helped to establish a high quality and very informative Newsletter that I have thoroughly enjoyed as a member of NSA. I am excited to be working with the Publications Committee and others to help produce the Newsletter for you.

In addition to the regular articles that you have come to know and love, this edition marks the start of a new series of stories and articles by and about some of our distinguished members and predecessors that I hope will build upon the wonderful experience we had during the Centennial Roundtable. Be sure to check out the first of these on Thurlow C. Nelson, contributed by Perry Jeffries, on page 13.

Above all, I welcome suggestions and contributions from all NSA members. Please feel free to email me with your ideas at prawson@maine.edu.

**Paul Rawson**  
University of Maine

## Accessory Hearts

### Memories of Thurlow C. Nelson by a Former Student

How many teachers did you have before graduation? Perhaps fifty in high school, maybe twice that in college and more for a graduate student. Forget the total, for each of us two or three stand out. Was it insight into subject matter, or more likely, were there lessons that gave guidance and meaning to one's pursuit of intellectual maturity?

E. O. Wilson, author of "Creation: An appeal to save life on earth," recalls his great teachers: "Almost unconsciously, we became real, practicing scientists...the joy we drew from the hands-on training entered our bones and shaped our souls." Heavy words, but that's the way it is, and how fortunate fledging scientists are when the subject matter, so guided, sweeps them to a lifetime experience.

Back problems put me in a hospital for serious surgery. Following the operation, through a haze of anesthesia, I felt contractions pulsing up and down my legs. Coming to my senses, I saw inflatable leggings driven by a compressor. Smart idea, keeps the blood circulating: an accessory heart, so to speak. But where did the accessory heart idea come from? Not from the probing of medical mavens. Oyster biology, of course. Swollen vessels pulsing along the free margins of the oyster's gills, give its heart a little boost where it needs it most. Distance wise my feet and heart are roughly proportional to an oyster's gills and its heart.

This revelation dulled postoperative pain, but relief came recalling the last course given by Thurlow Christian Nelson, TCN to Rutgers biologists, who had retired to Cape May Courthouse in southern New Jersey. Four graduate students drove from New Brunswick to the Cape Shore Laboratory on Friday, bought groceries, and met for an evening lecture, which set the stage for Saturday's fourteen-hour lab session. TCN's dedication could be overwhelming, yet there was sincerity, a regard for life that penetrated even a graduate student's pragmatic consciousness as possibly transcendent.

Saturday morning we got to work after hearing a clattering of footsteps on the stairs leading to our second floor lab, kitchen and dormitory, "Here comes TCN chomping at the bit," rang out as a warning to clear the place for action. It started with a demonstration that must have taken him hours to prepare, but it only went so far. We were expected



to do the real work: trace feeding pathways on mollusc gills, examine digestive processes, catalog parasites, and compare anatomical refinements. If you didn't know how to draw, you soon learned.

Oysters are filter feeders that remove suspended matter in water drawn through its gills. Cilia sort small food particles from larger, mostly useless debris. Other pathways move food to the mouth. Using dye particles of various sizes, we were to draw this process and describe the coordinated actions. Had we done this 15 years earlier, our results would have been publishable.

The oyster's crystalline style fascinated me. It has enzymatic properties and rotates in a sack, pressing against a shield thought to assist in breaking up food particles. As far as I know the style is the only rotating structure above the molecular in the animal kingdom. So why didn't nature, widely touted for its cleverness in all situations, come up with a wheel? What an adaptation for fitness and selection that would have been—enough to cause evolutionary biologists to question Darwinian concepts of fitness!

TCN discovered in the American oyster a mysterious chamber that turned out to be an adaptation for life in turbid estuarine waters. By filling this chamber with water and then making a quick squeeze, the oyster sent a jet of water across its gills, cleansing them of debris too heavy to be removed by ciliary sorting. This came as a surprise, because the European oyster, the reference standard for oyster anatomy, lacks it. But the European oyster lives in clear coastal water and does not need the cleansing jet so important in the American species. For a lab session, TCN had perfused red Jell-O into oysters so that we could make sections and deduce how this remarkable structure worked.

Such intensity, subtle encouragement and striving to observe—these I remember amidst a plethora of detail. Our lab reports handed back the following week had thoughtful comments written with pencil in a careful hand that did not detract from a drawing or description.

Always be aware of your surroundings: this was an ancillary lesson driven home in various ways. Before class ended Sunday afternoon, following more lectures and discussion, we collected specimens on the Cape Shore's deserted beach. Walking, hands full, I mentioned to TCN that I needed a pail. Without missing a step, he scooped up a large horseshoe crab shell and said, "Here, have one of nature's buckets."

When the great Edinburgh biologist C. M. Yonge visited TCN, we were invited to Cape May Courthouse for an evening discussion ranging from the ocean depths to shoreline zonation. Those days, graduate students were expected to take a fair measure of joshing. When the discussion turned to a deep-sea fish that had revolutionized classification, I added that it was probably a

Continued on page 13

**Hearts...** continued fromon page 12

graduate student that took down from a dusty museum shelf an overlooked jar holding the soon-to-be-famous fish, and everyone had a good laugh.

Back in the hospital, a nurse removed my peristaltic leggings, but what about accessory hearts? They still beat within me—and for good reason—a metaphor implanted under the guidance of a great teacher is always with you: it “shapes your soul” and makes you what you are.

Wilson, E. O. 2006. *The creation: An appeal to save life on earth.* W.W. Norton, New York, N. Y. 175 p.

**H. Perry Jeffries**  
**Emeritus, University of Rhode Island**  
**September 29, 2007**

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## **National Symposium on Shellfish and the Environment**

The NOAA Aquaculture and Habitat Conservation programs recently hosted the National Symposium on Shellfish and the Environment. The meeting, organized by Sandy Shumway and Kate Naughten was held in Warwick, RI on June 9-10. Senator Jack Reed of Rhode Island provided an enthusiastic overview of aquaculture and its role in the U.S. economy, and emphasized the proactive approach that Rhode Island is taking to ensure a sustainable and environmentally responsible aquaculture industry.

Approximately 80 representatives and experts from the shellfish industry, non-governmental organizations, researchers, and federal and state officials attended the Symposium. The conference was a combination of invited scientific presentations and facilitated group discussion groups, and covered topics as wide ranging as carrying capacity, eutrophication and water quality, habitat, invasive species, genetics, disease issues, social aspects of aquaculture, gear/harvest impacts, and cumulative impacts. Invited speakers included Jon Grant, JoAnn Burkholder, Odd Lindhal, Dianna Padilla, Dennis Hedgecock, Roxanna Smolowitz, Loren Coen, Brad Harris, Gary Jensen, Colin Brannen, George Leonard, John Hargraves and Gary Wikfors.

The information generated by the Symposium is being synthesized and will be used to facilitate public policy and resource management decisions for shellfish culture in the United States. Although a summary of the Symposium will not be available till later this year, presentations from the symposium can currently be viewed at <http://aquaculture.noaa.gov/news/shellfishsymposium.html>.

## **NSA Publications Archived On Line**

Open-access archived copies of NSA publications dating back to 1946 can now be accessed through the Biodiversity Heritage Library (BHL) website ([www.biodiversitylibrary.org/creator/2352](http://www.biodiversitylibrary.org/creator/2352)). The BHL is a joint effort by 10 major biology libraries to scan, digitize and make available the biodiversity literature in their holdings. The Marine Biological Laboratory Library at Woods Hole, one of the member libraries, provided the NSA publications. Copies of the NSA Convention Addresses (1946-1949), the Proceedings (1954-1979), and JSR (1980-2003) are available for viewing and downloading. Finding articles on the BHL site is not like performing a “Web of Science”-type search. When you log onto the above site, you will see links to the three publications. Clicking on any one will open a window with links to years (Convention Addresses - note that 1947 includes 1948) or volume numbers (Proceedings and JSR). Clicking on a year or number will, in turn, open a window showing, on the left-hand side, individual page titles or numbers. Clicking on one of these will open an image of that page. (Note that some of the pages labeled “text” are blank. Although faint printing may be visible, it is merely the back of the preceding, printed page). Icons at the top of the image allow printing, saving or resizing of the page image. Uncorrected optical character recognition files are also available for viewing— just click on the “view text” link under the page list window. An image of the entire volume in pdf format also can be downloaded. Clicking “download” to the right of the volume number will open a window with a list of different file types that BHL has created for that volume. Of these, the file with the “.pdf” extension is the best download.

At present, the BHL site is not set up to search for individual articles, authors, or key words (other than in the title – i.e., “shellfish”). The goal of BHL is to scan as much material as possible while funding is available, “then add in advanced technology solutions for secondary post-processing as they are developed. “ Meanwhile, with a modest effort, references to articles in past NSA publications can now be retrieved by any researcher with internet access. Although a little patience is required to obtain articles on the site, users will be rewarded by finding that these early publications contain a wealth of valuable information, much of which has been ignored because of difficulty in accessing the material. No longer should this be an impediment to sound scholarship (see JSR Editor Sandy Shumway’s article on page 12 of the June 2008 Newsletter).

**Susan Ford**  
**Co-Chair, Publications Committee**

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**NSA's Capital Campaign for the Student Endowment**  
 \*\*\*\*\*

**\$100,000**



The capital campaign to provide long-term financial stability to the Student Endowment has been extended (see message from President-elect Joth Davis on page 15). NSA has always focused on nurturing and supporting students and their professional development, a focus that differentiates NSA from many other scientific societies. NSA has also sought to bridge the generational gap between younger members and our old guard. By honoring those leaders and special members who have led NSA in years past, newer and younger members gain insights into our history as well as developing an appreciation for the social linkages that substantively contribute to our Association – now into its second 100 years.

Our long tradition of providing financial assistance for students to conduct shellfish research and to present their research at annual meetings is one of the most direct ways in which we can nurture students and their research. Our Centennial (Capital) Campaign is critical to building the Student Endowment so these mentoring activities remain strong. No donation is too small as we strive to reach our goal of \$100,000 by the end of the year. Approach your friends and relatives (perhaps even your local post-office) - you'll be surprised at how generous they can be. You can download a donation form off the NSA Website ([www.shellfish.org](http://www.shellfish.org)) and donate via credit card. You can also send a check directly to our Treasurer (Chris Davis - see address on the back of the Newsletter).

The students are our future so please make an extra effort to make this campaign a success.

**NSA Executive Committee**

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## Centennial Campaign Extended to End of the Year.

At the last EXCOM meeting, it was agreed to extend the Centennial Campaign to the end of the year in order to capitalize on the enthusiasm associated with NSA's Centennial year and hopefully reach our goal of \$100,000. As of today, NSA has been gifted a total of \$16,696 by membership and friends of NSA. A sincere thank you to each of you who have given to the Centennial Fund to date – you are directly and effectively helping to ensure the future of NSA's unique role in helping meld students' needs with their professional development.

We also have a ways to go to reach our financial goal and I am writing today to urge members to think carefully about how NSA has influenced their lives and careers over the years, no matter when they joined.

NSA's niche in the world of professional societies has been focused for 100 years on topics relating to shellfish and shellfisheries. But NSA offers much more than a mechanism for bringing people together to talk and publish information on shellfish. Let's face it – shellfish people are different – perhaps because we manage and utilize many of these critters for food or the ecological services they provide. What professional society can claim a diversity of membership that includes restoration practitioners and modelers studying theoretical larval distribution or geneticists and pathologists and shellfish growers focused

on yield and survivorship? The biologist, the resource manager and the aquaculturist often have much to learn from each other. Our annual meeting affords the opportunity for these kinds of interactions, whether standing at the oyster bar or attending a scientific session of mutual interest. NSA is also different in my view from other scientific societies because of our historic focus on students and their professional development. These characteristics are the hallmark of the NSA experience and should be our focus for the future as well.

This is all to say that the time is now to support NSA through concrete means – specifically by giving to the Centennial Fund before the end of the year. We want to be able to continue to offer scholarship assistance, travel and lodging assistance for students. As NSA moves into our next 100 years, we cannot accomplish this without the help of members and friends. Whatever level of giving you choose – with profuse thanks to those who have already given, I urge those who have not yet contributed to think about what NSA has meant to you and contribute what you can.

NSA needs YOUR help to reach OUR goals in the years ahead.

**Joth Davis**  
President-Elect

## Upcoming Events

**Pacific Coast Section of NSA and Pacific Coast Shellfish Growers Association Meeting**, October 1-3, 2008, Campbell's Resort in Chelan, Washington, USA. For information visit <http://www.pcsga.org>.

**11th International Conference on Shellfish Restoration**: November 19–22, 2008, DoubleTree Guest Suites, Charleston, South Carolina, USA. For information visit [www.sceagrant.org/Content/?cid=297](http://www.sceagrant.org/Content/?cid=297); for abstract information contact Rick DeVoe ([rick.devoe@sceagrant.org](mailto:rick.devoe@sceagrant.org)).

**Northeast Aquaculture Conference & Expo**: December 3-5, 2008, Eastland Park Hotel, Portland, Maine, USA. For information visit <http://www.northeastaquaculture.org>.

**Society for Integrative and Comparative Biology Meeting**: January 3-7, 2009 at the Westin Boston Waterfront Hotel, Boston, MA, USA. For information visit <http://www.sicb.org>.

**Aquaculture America**: February 15-18, 2009, Washington State Convention Center, Seattle, Washington, USA. For information visit <https://www.was.org>.

**National Shellfisheries Association, 101st Annual Meeting**: March 22-26, 2009, Savannah Marriott Riverfront, Savannah, Georgia, USA. For information visit [www.shellfish.org](http://www.shellfish.org).

**17th International Pectinid Workshop**: April 22-28, 2009, University of Santiago de Compostela, Galicia, Spain. For information contact Luís Sánchez ([bnluis@usc.es](mailto:bnluis@usc.es)) or Luz Pérez-Parallé ([bnmalu@usc.es](mailto:bnmalu@usc.es)).

**World Aquaculture Meeting**: May 25-29, 2009, World Trade Center, Veracruz, Mexico. For information visit <https://www.was.org>.

**International Conference on Molluscan Shellfish Safety**: June 14-19, 2009, Nantes, France. For information and to register online visit <http://www.icmss09.com>.

**The Crustacean Society Summer Meeting**: September 20-23, 2009, Tokyo University of Marine Science and Technology, Shinagawa, Tokyo. For information visit <http://www.vims.edu/tcs>.

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If you would like to announce a meeting, conference, workshop or publication that might be of interest to NSA members, please contact Paul Rawson ([prawson@maine.edu](mailto:prawson@maine.edu)).



**Ms. Linda Kallansrude  
NSA Secretariat  
14 Carter Lane  
East Quogue, NY 11942**

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