

National Shellfisheries Association

QUARTERLY NEWSLETTER

SEPTEMBER 2005



WALDOBORO, MAINE

President's Message

Hello NSA members. There is a lot of exciting news that I want to share with you. This summer, NSA will make a major leap forward in providing an array of services to its membership via the existence of a new web portal. The website offers a variety of conveniences for NSA members including a membership directory (inclusion of contact information is by choice), a means to register and submit abstracts for annual meetings, and the ability of members to make immediate updates to their contact information. The web-site is the product of at least two years of planning and evaluation that actually started with an *ad hoc* investigative committee. The improvement is based on convenient and efficient access to information and services. The facelift is the product of the efforts of the Longsight Group and Scott Siddall, former President of NSA (1989-1990). The date of availability of the new site is not far away. Please take the time to visit the new site and contact me by phone or E-mail with your comments and suggestions. The input of the NSA membership is highly valued and essential to bringing about progress through change as needed.

Plans for the next annual meeting in Monterey are moving along splendidly, and I encourage members to consult this newsletter and go to the website for additional details about the meeting. The meeting is shaping up to become one of the most memorable for both the anticipated high number of participants and for the noteworthy array of research topics that will be covered through 15 Special Sessions. If you are interested in organizing a special session, time remains. Contact LeRoy Creswell, the Program Chairman. It's not too early to start thinking about submitting an abstract, or contacting a special session chair. Members of the Industry Committee have decided to use the 2006 Monterey venue to provide NSA members information about specific needs of industry. They have decided to develop/organize either a full or half-day forum. Tentatively, the title of the session will be "Shellfish Industry Research Needs - A Collaborative Discussion of Issues and Direction". The intent is to engage more members to conduct or promote research that has impact and significance



Monterey's Fisherman's Wharf is just a stones throw from the Marriott Hotel and site of the NSA '06 Annual Meeting.

relative to the industry. An additional NSA effort to serve industry needs has been inaugurated as the Report to Industry. This annual report is designed to provide a source of published research articles that contain information that has potential or ongoing value/benefits to the industry. The report can be found on the NSA website under Online Resources and is the product of the efforts of Gef Flimlin, Joth Davis and Rick Karney, members of the NSA Industry Committee.

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- ***A Great Book Review***
- ***The Recruits***

Recruits Corner

Recruits, Greetings from California! I hope you are all preparing to head my way for the NSA 2006 Annual Meeting in Monterey (I'm just a little further up the coast in Bodega Bay). In addition to all the great shellfish science at the meeting, the Monterey area has lots of fun indoor (read: Monterey Bay Aquarium) and outdoor (read: hiking in nearby Big Sur) stuff to do. Apparently you can get some killer squid tacos there too. And for all you folks on the East Coast, while it may be snowy in late March at home, Northern California has nice mild weather all year long. Don't forget that the President's Reception will be held at the Aquarium. So, with your productive summer behind you, start thinking about an abstract now and look for the call for papers for Monterey soon.

Now on to another favorite subject of mine – FUNDING. After the success of the special session on publishing at the Philly meeting, we've decided to have another student-oriented session at the Monterey meeting on FUNDING, pre-doc to post-doc. Dane and I will come up with a catchy title soon. We are planning on providing a lot of funding resources and tips and hopefully a few people with expertise to chat with us. We welcome any suggestions that you students out there may have for the session. Tell us what you'd like to hear about FUNDING (e-mail addresses for Nature and Dane on back cover). In the meantime, you can start preparing your applications for the Carriker and Castagna Awards, two \$1000 research grants available to student members of NSA. Please see www.shellfish.org for details on the Carriker and Castagna Awards and keep in mind that the deadline for the awards is October 31, 2005.

Speaking of the website... If you have any suggestions for content for the Recruits webpage, please e-mail me or Dane and let us know. We are always open to suggestions about the Recruits page and anything else involving your life as a student member of NSA. I hope to post the info from the Making the Journal session soon, so keep an eye out for that. Also, always check the Recruits webpage for upcoming student news (and send us anything that you think other students would be interested in).

So, for now, think about getting an abstract together for Monterey. The meeting is a little earlier in 2006 (last week of March), so the abstract deadline will be a bit earlier as well (early December – see elsewhere in the newsletter and the website for details). East Coast people, keep a look out for reasonable (less than \$300) cross-country flights, they do exist. And West Coast students, like all of you that I see at the NSA-PCS/PCSGA meetings in the fall, Monterey's practically in your backyard, so I'll see you there. Room rates will be pretty inexpensive and don't

forget to apply for Student Endowment Funds when you submit your abstracts.

As always, please stay in touch with any comments, compliments, or suggestions about the Recruits.

Sincerely, your co-chairs,
Nature and Dane

Treasurer's Update

Well this should be my final Newsletter column as Treasurer. Although you voted Chris Davis into office as our new Treasurer at the annual meeting in Philadelphia, the books don't get completely transferred until after the close of the fiscal year on September 30th. The big activity that I have been involved with has been to assist with testing the new web portal. It looks wonderful. Appearance-wise you probably won't see a whole lot of changes from what our website looks like now, but it will take on a whole new functionality that I am sure you will be pleased with. My main concern has been how it will enable better management of NSA's finances. Scott Siddall and the staff at Longsight have been doing a wonderful job. Hopefully, all the beta testing will have been completed by the time you read this. If so, be sure to check it out. One of the first things you'll want to do is manage your own membership – change your temporary password, decide how much (if any) of your membership info you want posted to the web, check off the option to have dues renewal sent to your e-mail to save paper and postage, etc. Then browse around and see the new features.

I am happy to report that NSA remains in good financial shape with \$92,083 in general assets or enough for two issues of *JSR* and two Newsletters. In addition, the Student Endowment Fund contains \$33,638 bringing our total assets to \$125,721. We could be better off, however, if you (yes you) would recruit at least one new member each year AND check to make sure that your institution subscribes to *JSR*. As you continue your work (whether in industry, academia or management), please consider seeking sponsorship for special topics to be presented at meetings, as sections or entire issues of *JSR*, or even as informational articles in the newsletter.

Dave Bushek
Outgoing Treasurer
President-Elect

Monterey 2006 - Oceans of Shellfish

Things are shaping up for an excellent program and many opportunities to enjoy all that the Monterey Bay area provides during the NSA 2006 Annual Conference featuring Oceans of Shellfish. We are delighted that Sandy was able to arrange the President's Reception at the Monterey Bay Aquarium to kick off the event Sunday evening, March 26th. Special thanks are extended to Julie Packard and the Aquarium for making this possible. If you have visited the aquarium before you'll be impressed with the many new exhibits and the opportunity to leisurely stroll among the displays absent the crowds of tourists is not to be missed.

Leroy and friends are putting together an impressive program with special sessions described elsewhere in this newsletter. In addition, we will maintain some NSA traditions like Ken Chew's Chinese Banquet Monday March 27th and the NSA Auction and dinner Tuesday, March 28th. A Student Orientation

Breakfast Monday the 27th will provide students with opportunities to discuss mutual interests and make plans for the next few days.

You are strongly encouraged to take a few days before or after the conference to enjoy the many attractions the region has to offer. A drive along the Big Sur Coast, kayaking with sea otters or a dive into a kelp forest all come highly recommended. At times we all believe we are too busy and must rush home, but rest assured if you take the time you won't regret it.

We are all looking forward to an informative and enjoyable experience so mark your calendars for NSA 2006, March 26-30, 2006 at the Monterey Marriott.

Paul Olin

List of Organized Sessions for Monterey 2006

Restoration of Oysters and other Bivalves - Aswani Volety; avolety@fgcu.edu, and Bill Arnold; bill.arnold@myfwc.com

QPX - Roxanna Smolowitz; rsmol@mbi.edu

Crassostrea ariakensis - Mark Luckenbach; luck@vims.edu

Genetics - Dennis Hedgecock; dhedge@usc.edu

Freshwater Mussels - Jeanette Howard; JeanetteHoward@ctuir.com

Biofouling - Bob Whitlatch; Robert.Whitlatch@uconn.edu and Sandy Shumway; sshumway@uconnvm.uconn.edu

Abalone - Pete Haaker; phaaker@dfg.ca.gov, and Ian Taniguchi; itaniguchi@dfg.ca.gov

Bivalve Physiology - Dane Frank; dana.frank@uconn.edu, and Evan Ward; jeward@uconnvm.uconn.edu

Introduced Species - Dianna Padilla; padilla@life.bio.sunysb.edu

Sea Urchin Aquaculture and Fisheries - Susan Schlosser; scschlosser@ucdavis.edu

Biotechnology III - Karolyn Hansen; karolina@mindspring.com, and Ami Wilbur; wilbura@uncw.edu

Marketing - Bill Walton; wwalton@whoi.edu

Crustacean Biology and Fisheries - Rich Childers; childrkc@dfw.wa.gov

Shellfish Industry Research Needs - A Collaborative Discussion of Issues and Directions - Joth Davis;

jdavis@bainbridge.net, and Gef Flimlin; flimlin@aesop.rutgers.edu

Special Student Session/Funding - Nature McGinn; namcginn@ucdavis.edu, and Dane Frank; dana.frank@uconn.edu

There is still time to organize a Special Session!

If you are interested in organizing a Special Session, contact LeRoy Creswell, Program Manager immediately! (contact information is on the back cover.)

Industry Update

In an effort to induce greater interactions between the shellfish industry and research, the NSA Industry Committee is proposing to convene a Shellfish Research Forum at next year's annual NSA meeting in Monterey, CA. We are interested in initiating a collaborative process whereby research issues critical to the shellfish industry (wild harvest and aquaculture) may be discussed with academic and agency researchers. Our hope and ultimate intent is to generate a living document that will enunciate an essential list of research priorities that would help to stimulate greater interest within the academic community to pursue research vital to the shellfish industry on a national level. Similar in intent to the undertaking by the Pacific Shellfish Research Institute (PSI) in 1999, the west coast bivalve culture (through interactions with the PCSGA and the Pacific Coast Section of NSA) found that agencies and the academic community generally embraced the concept of a document outlining west coast research priorities as a means to better delineate applied research and to construct better working relationships between industry and the research community. We envision working from a collaborative exchange and existing documents outlining research needs to develop a short list of priorities to better inform researchers, and particularly students to consider taking a look at applied research opportunities.

PSI and ECSGA would potentially jointly chair the Forum and direct the discussion. We envision a one-day session. A timetable with specific research topics would be published before the meeting so to avoid conflicts with ongoing sessions in the hope that industry, scientists and students would attend and learn about research issues critical to the shellfish industry. Within the context of "what do we know and what do we need to know," the session may be titled, "Shellfish Industry Research Needs - A Collaborative Discussion of Issues and Direction" with the following areas for discussion to potentially include (among others):

Applying Models to Harvest Strategies
Shellfish (including crustaceans) Diseases
Approaches to Carrying Capacity Estimates
Shellfish Production and Water Quality
Breeding Shellfish for Higher Yield
Ecological Effects of Shellfish Culture and Harvest
Optimizing Hatchery and Nursery Production of Live Algae, Larvae and Seed
HABS and Shellfish
Shellfish Husbandry: Growout Technologies, Cryopreservation and Probiotics
Development of Alternative Species for Culture

The foregoing verbiage, theme and list of topics is *not* intended to be all inclusive but hopefully a stepping stone to further discussions among NSA folks who have an interest in conducting research for the industry (loosely defined as commercial shellfish harvesters and aquaculture). I use the term shellfish to include crustacean fisheries as well. So, we would appreciate feedback with thoughts and ideas to identify whether this session would resonate with others.

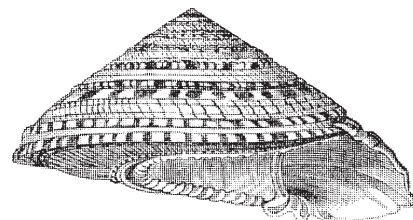
Joth Davis, Gef Flimlin and Rick Karney
Co-chairs of the Industry Committee

A Message From Your Outgoing Newsletter Editor

This is my last issue as Editor of the *NSA Quarterly Newsletter*! When Jay Parson's asked if I would like to take over as Editor, I thought it might take few hours a month to pull this together but that I'd also get to work with some really great people. Well now, four years later, I can say the second part was certainly true but I slightly underestimated the time needed to pull each issue together. That said, this newsletter is certainly a collaborative effort and special thanks go to Jay Parsons, Dan Kreeger, Sandy Shumway and Lou D'Abramo for their guidance and support. I'm also grateful to all the Committee Chairs for their diligence in getting their reports and articles sent my way.

The Association is fortunate to have Dr. Evan Ward come on as Editor of the *Newsletter*. I know he will do a fantastic job bringing the news of the Association to the membership. So send your ideas, news, photos and articles to Evan and continue the tradition of this great publication written by the membership for the membership.

Chris Davis
Outgoing Newsletter Editor and
Incoming Treasurer



Association's Web Portal Makes Debut



For the last twenty years, the membership records of NSA have been managed on a computer system - tracking dues payments, sending out dues notices, printing mailing labels for *JSR*, and more. We are indebted to the NSA officers and especially to the NSA bookkeeper, Nancy Lewis, for managing this system so effectively!

But now, after nearly a two-year development effort, members of NSA have access to the new "web portal" for NSA member services. At first you may not notice that much has changed with the NSA web site at <http://shellfish.org>, but if you look carefully, you'll see that members can now log into the site. The public still sees the NSA web site while members can access services and information meant for members only. According to NSA President Lou D'Abramo, "This achievement is part of a continued effort by the NSA leadership to effectively use membership fees to meet the ever-growing needs of members of professional organizations."

About the same time as this *Quarterly Newsletter* is being printed and mailed, each NSA member is being mailed a letter with their own username and password for the NSA web portal. Be on the lookout for this important letter!

These next two steps are very important

Each member needs to log in and change their initial password to something unique, memorable and secure. This and your username are the keys to your NSA web portal account. Members should also carefully update their email addresses

at the NSA web portal.

Once logged into <http://shellfish.org>, NSA members can

- + Update their contact information and choose if they want it accessible to other members
- + Opt to have their annual dues notices emailed instead of printed and mailed
- + Specify personal research interests
- + View a private, online membership directory by name or research interest
- + Find other members and view their contact information if they make it available
- + See members-only announcements
- + Pay dues online with a credit card through VeriSign, one of the most trusted names in online transactions
- + Register and pay fees for NSA conferences
- + Submit and pay fees for program abstracts

We fully expect there to be some shakedown issues with the NSA web portal, and we'll handle these as fast and accurately as humanly possible. We also welcome your suggestions for improving the web portal because this is only the beginning. The NSA web portal opens the door for many services to members. Tell us what you want by sending an email to webmaster@shellfish.org.

Scott Siddall

**Abstracts for the Monterey '06 Annual Meeting
will be due December 1, 2005.**

**The Call for Papers and submission details will be
announced in the Fall Newsletter**

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

Special thanks to Paul Olin, Susan Schlosser, and Sandy Shumway who have been integrally involved with all the local arrangements for the Monterey meeting. They have done an outstanding job in keeping costs of registration and hotel accommodations at a reasonable level. There is no doubt that the cost of attending any meeting of a professional society or organization has increased over the past 5-10 years and that travel has a tendency be the first line item in budgets to suffer cuts. Every effort is made to keep costs down while at the same time ensuring that members have all the necessary amenities at an annual meeting. Planning an annual meeting for NSA members is always a challenge for the NSA Executive Committee because making certain the meeting is affordable and attractive to members must be balanced with wise fiscal management. The cost to attend NSA annual meetings continues to be an exceptional value when compared to costs of attending meetings of other professional societies. This year is no exception. Just think about it... an exclusive NSA viewing of the Monterey Bay Aquarium as part of the President's Reception! Through our student endowment fund, we have particularly attempted to ensure that students, the future of NSA, are provided many opportunities to obtain the financial assistance that they need to attend meetings so that they will carry on as active full members in the future.

Once again, I call upon your assistance in making the effort to recruit one new member. Currently our membership stands at just under 800. I would like to see that number rise to 1,000 by the end of my term as your President. Securing new members not only contributes to the fiscal vitality of NSA, but also provides for more volunteer participation and contribution, maybe even future members of the Executive Committee and other standing committees. Contact some former members whom you might know and tell them about the new and growing opportunities and services that membership in NSA provides. For those of you who made a pledge at the Philadelphia meeting to recruit one new member, I challenge you follow through, if you have not already done so. Enhancing our membership base is the key to keeping NSA viable, valuable, and significant as it approaches its 100th anniversary.

Lou D'Abramo



Nominations for Honored Life Member and David A. Wallace Award

The Awards Committee is now accepting nominations for NSA Honored Life Member and for the David A. Wallace Award. Nominations should include a 100 to 200 word description of the nominee's achievements that will allow the Committee to evaluate the suitability of the nominee for an award. The person proposing a candidate will also work with the Awards Committee to provide a description of the candidate's accomplishments that will be published in the *NSA Journal of Shellfish Research* and the *NSA Quarterly Newsletter*.

Honored Life Member Award

Nominees must be NSA members who, by their exemplary service to the Association or to the profession, deserve recognition as Honored Life Members of the Association. In general, nominees should be highly respected individuals who have made substantial contributions to shellfisheries science, education, or the industry.

David A. Wallace Award

Nominees should be individuals whose actions most demonstrate the principles and actions concerned with programs in shellfisheries, aquaculture, and conservation as exemplified by Mr. David Wallace during his lifetime. These principles and actions should include promoting understanding, knowledge, and cooperation among industry members, the academic community, and all levels of government (states, national, and international); and outstanding success in bringing together shellfish scientists and industry officials for the benefit of shellfisheries. The award is not linked to NSA membership.

The deadline for nominations will be October 31, 2005. Nominations should be sent to Sandra Shumway at the address listed on the back page.

Postdoctoral Fellowship Opportunity

Postdoctoral fellowships in aquaculture, marine biology/biological oceanography, marine mammal research, natural products chemistry, and ocean technology are available at Harbor Branch Oceanographic Institution, Fort Pierce, Florida. Fellowships run from January 1, 2006 through July 31, 2007.

Applicants must have received their doctorate degree within the past 5 years. For more information and an application packet, visit <http://www.hboi.edu/marineed/pro.html> or contact Ms. Cathy Rossmell (Rossmell@hboi.edu). Deadline for submission is October 8, 2005. EOE/AA/DFWP

Book Review

Hatchery Culture of Bivalves - A Practical Manual by Michael M. Helm, Neil Bourne and Alessandro Lovatelli (comp./ed.); FAO Fisheries Technical Paper No. 471. FAO, Rome, Italy, 2004, ISBN: 9251052247, 177 pp.

Rare is the occasion that a practical manual provides such a satisfying read as does Helm and Bourne's new hatchery manual for the culture of bivalve mollusks. Rich with practical information, excellent graphics, photographs and an outstanding bibliography or those seeking further information on hatchery-oriented topics, this new entry to the bivalve hatchery methods literature should provide a standard for years to come. The manual is an excellent synthesis of modern rearing methods for commercially important bivalves with a focus on both cupped and flat oysters, clams and scallops.

The manual is organized into seven parts. The first part focuses on site selection and hatchery design with a short piece describing economic considerations associated with hatchery development. The information provides a basic treatise on the critical importance of water quality to a hatchery's success as well as a nice discussion of how best to optimize hatchery layout and accommodate algal culture needs for broodstock, larvae and seed maintenance. The second part is focused on a basic description of bivalve biology. Anatomy, basic physiology and reproduction are included and augmented by excellent graphics, photographs and tables outlining the fundamentals of bivalve life history and essential physiology associated with rearing protocols. The third section deals with the culture of microalgae. While other recent volumes have dealt exclusively with this vitally important hatchery function, I found this section to provide basic information for the hatchery technician focused solely on the wide variety of methods utilized for commercial algal production. Basic principles and specific methods for cultivating flagellates and diatoms commonly utilized in modern hatcheries are well covered and amply illustrated with photographs, text drawings and diagrams. Thankfully, the authors draw on their wide experience and carefully delineate the advantages and disadvantages of different culture vessels and systems (batch verses semi-continuous to continuous production). Particularly useful here (and

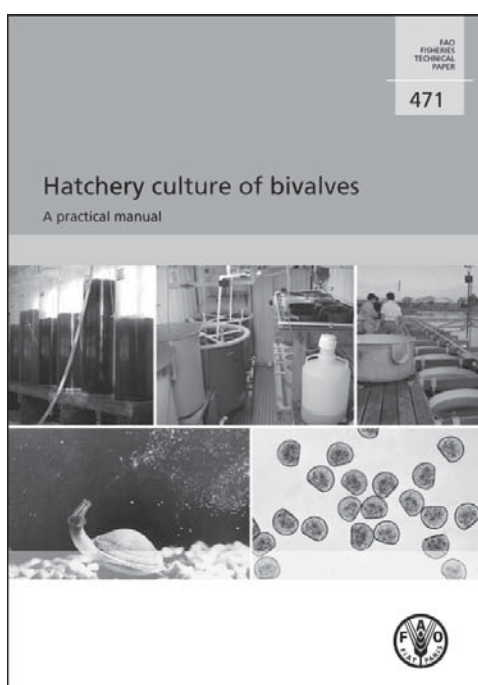
throughout the manual) are colored text boxes outlining specific procedures and/or examples common to all bivalve hatcheries. Methods for making sterile transfers, expanding cultures and counting algal cells are all well described and expertly diagramed or photographed.

The fourth part of the manual focuses on hatchery operations pertaining to broodstock management, specifically the procurement, care and conditioning protocols used for adults destined for gamete production. I was impressed by the attention the authors give to proper broodstock feeding, and specifically the need for attention to both quantitative and qualitative aspects of multi-species diets to provide for optimal gamete quality. Spawning and fertilization procedures were covered adequately, although

I was disappointed not to see a wider range of spawning techniques discussed, particularly as many bivalves can be recalcitrant to thermal cycling techniques alone. A lot of attention is paid throughout this volume to methods pertaining to the special case of larviporous oysters (e.g. *Ostrea edulis*) and to monoecious species such as bay scallops. It is heartening to see the attention paid to these important subtopics included in a single volume.

Part Five and Six of "Hatchery Culture of Bivalves" delves into the meat of modern hatchery methods, covering basic larval rearing methods (water treatments, static culture and evolving methods for high density rearing in flow through cultures), feeding, nutrition and methods for maximizing rates of settlement and metamorpho-

sis in commonly reared bivalves. Thankfully, excellent attention is given to issues associated with all aspects involved in the husbandry of cultures, and again the authors had the technician in mind when organizing this material; examples are plentiful giving the reader plenty of information on basic principles to adapt to their own hatchery and rearing conditions. The section on Feeding and Nutrition is particularly good outlining the characteristics associated with different live microalgae, emphasizing the need to feed larvae a mixed diet and focusing on the importance in providing species specific diets based on composition (high food value species) and ration. Settlement and metamorphosis are well covered with details pertaining to specific methods for maximizing settlement and providing the conditions necessary to promote a high return of juvenile bivalves. Details pertaining to the observation of morphology and behavior of lar-



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ECSGA goes to DC to protest ESA listing

ECSGA members Tom Kehoe, Ed Rhodes and myself trekked to DC to join compatriots from the Gulf Coast and scientists and resource managers from both coasts to testify to the House Resources Committee on Tuesday about what a bad idea the proposed listing of oysters on the endangered species list would be. In an effort coordinated by the National Fisheries Institute, we split into teams and met on Monday and Tuesday with 28 representatives and senators (mostly staff) urging them to weigh in and support our industry. Monday evening the Louisiana Oyster Task force sponsored a reception for staff and delegates featuring food and drinks and an oyster eating contest with Sonya Thomas “the Black Widow” the world champ oyster eater. The event drew half a dozen congressmen and about a hundred staff and provided a great opportunity for industry to get our message across to key decision makers. Committee Chair Rep. Richard Pombo (CA-R) attended as did committee member Charlie Melancon (D-LA), John Larson (CT-D), Dana Rohrabacher (CA), Gene Taylor (MS) and Henry Brown (SC),

On Tuesday our group met with NOAA Fisheries Director Bill Hogarth who explained the genesis of the petition and defended the decision to accept the petition for review. This was followed by a congressional hearing in the House Resources Committee where members and staff heard testimony from a dozen experts about the shortcomings of the petition.

Some of the highlights: There are over 10 billion American oysters in US waters!

ESA Listing would kill markets for oysters, ruin jobs for thousands of farmers and harvesters and stop growers from investing in the resource. This would remove a huge source for larvae and a huge sink for nitrogen causing more environmental damage.

Listing would not help the resource and would damage recovery efforts by ending research on disease resistance.

All of this is going on as a backdrop for a larger political football, the reauthorization of the Endangered Species Act. Rep. Pombo wants major changes to the ESA and environmental groups are opposing reauthorization as they fear the republican-backed efforts will weaken the ESA. Reality probably lies somewhere in between, but one thing is clear – the ESA is not working the way it was intended if it allows a petition as flawed as this to go forward. Congressional hearings on the ESA will continue through September and the Senate is likely to take up the issue later in the fall.

Whatever happens to these efforts to redraft the ESA is unlikely to affect this petition or take place in time to save

us. Some believe it is unlikely that the House and Senate will be able to reach consensus on a new ESA. Even if they do it will be months after NOAA has reached a decision on the oyster petition.

Most of what we heard as we sweated back and forth across the Hill was supportive, but I don’t want growers to get complacent. This issue will not be decided in DC. Our congressional delegates can pressure NOAA to do the right thing. However, the final recommendation is made by a “status review team” comprised mostly of state resource managers who will be hearing scientific testimony from experts over the next four months. Their recommendation will go to the Secretary of Commerce who makes the final decision in January.

Anyone who feels that the outcome is assured by rational thinking and sound science has only to look at the experience of salmon farmers in Maine who learned the hard way that anything can happen if the environmental community get behind the petition. So far we are not aware of any groups supporting the listing, but that could change and they can generate a million e-mails overnight with a single alert to their members.

So far I understand that ECSGA members have submitted at least 83 letters to their congressional delegates. Most of the coastal delegates we visited claimed they had not heard from their constituents on this and they are not likely to act if they don’t feel that their constituents care about this. Please send an e-mail if you have not already done so. If you don’t know how to send an e-mail to your delegates I can help.

We also have three more things we should do:

I would like help drafting a fact sheet that can go out to dealers and restaurants so we can encourage them to write in for us and keep up the pressure. We also need scientists to send their comments to the status review team at EasternOyster.Info@noaa.gov. Be sure to include docket number (050509124–5124–01) in the subject line of the message. You will get a confirmation e-mail from NMFS and your comments should go in the federal register if you get them there by the 26th. They do not need to be long.

It would also help to get state resource management agencies to weigh in opposition. They should have data to suggest their management plans exist and are working.

We could not have done this without the support of the Gulf coast industry (especially Mike Voisin) and the assistance of Frank Vittello and NFI as well as the letters and backing of our members.

Robert Rheault

Application Details for the Student Research Grants

The National Shellfisheries Association has two student research grants, the Melbourne R. Carriker Student Research Grant and the Michael Castagna Student Grant for Applied Research.

The Melbourne R. Carriker Student Research Grant

This is a competitive grant that is awarded annually to recognize a student's excellence in any research in the area of shellfisheries.

The Michael Castagna Student Grant for Applied Research

This is a competitive grant that is awarded annually to recognize a student's excellence in applied research in the area of shellfisheries. The practical, applied aspects of the research should be highlighted.

Students applying for the Michael Castagna Student Grant for Applied Research may also apply for the Melbourne R. Carriker Student Research Grant, **but must submit separate applications and designate which applications correspond to which grant.**

General Rules:

Applications will be reviewed by the NSA Awards Committee, which is a standing committee chaired by the Past-President. The deadline for proposal applications is **October 31, 2005**. Notification of the successful applicant will be made by December 31, 2005.

The applicant must be a student member in good standing of the National Shellfisheries Association and currently enrolled as a Master's or Ph.D. student in a recognized degree granting institution anywhere in the world. Students who have previously been awarded a Student Research Grant are not eligible to apply for that grant again. Grants will be made in the form of a check made personally payable to the recipient and no institutional overhead can be charged on these funds. The \$1,000 is designed to allow a student to purchase supplies and equipment essential to performance of their research. It is neither intended to allow purchase of general items, such as computers, nor to fund travel expenses associated with

attending professional meetings. Students seeking travel support to attend NSA meetings should apply separately for money made available through the NSA Student Awards Committee. It is expected that students who are recipients of the Student Research Grant will present results of their research at one of the annual NSA meetings.

A completed application will consist of the following five components (total of 6 pages maximum):

1. **Cover sheet** with the applicant's name, professional address, phone number, email address, thesis title, degree being sought (Master's or Ph.D.), date they entered the graduate program, and anticipated graduation date.
2. **Text** (2 pages): This will consist of a maximum of two pages single-spaced 12-pt font plus one page for figures (if needed). This should include an introduction to the research problem being addressed and the objectives and hypotheses being tested. There should be a clear statement of how the funds being requested will further the student's research. The literature cited section is not included in this page limit.
3. **Budget** (1 page): Briefly itemize how the \$1,000 being requested will be spent (e.g., \$150 for scintillation vials, \$200 for scintillation cocktail, \$120 disposable safety supplies, etc.).
4. **Resume** (1 page): List educational background, awards/honors, presentations at meetings, and any publications.
5. **Letter of endorsement** (1 page): The student's major advisor must provide a succinct letter of support commenting on the student's research and confirming that the funds are necessary.

Five copies of the application should be sent to reach the following address by close of the business day on **October 31, 2005**. No faxed, electronic, hand-written, or late applications will be considered.

Sandy Shumway

Get your back issues of *JSR* while they last!

Volumes 7 - 24 available for a limited time only!

Contact Sandy Shumway for more information on ordering and pricing.

(See back cover for her contact information.)

It's Not Too Early to Plan Your Stay in Monterey

The Marriott Hotel is located in historic downtown Monterey. There are numerous restaurants and shops in the immediate vicinity. The hotel is within 5 minutes walking distance to Fisherman's Wharf, the commercial wharf, and Del Monte Beach. It is a 15 or 20 minute walk along a pedestrian path to Cannery Row and the Monterey Bay Aquarium.

In the hotel, NSA 2006 plans 3 concurrent sessions. A fourth large room will be used for poster displays and coffee breaks. The hotel has wireless internet connection in public spaces and wired connection in rooms. Hotel amenities include a fitness center and spa.

Hotel Reservations for NSA 2006

The easiest and most convenient way to check a group rate with Marriott is to use the Marriott.com online reservation feature. You can do this by entering the NSA 2006 group booking code into the "Group Code" field during step three of the reservation process. Our code is: NSANSAA. Our room rate for NSA 2006 is \$149.00 per night.

If you prefer to contact the hotel directly, call:

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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).

Hatchery Culture... Continued from page 7

vae, settlement stimuli and settlement substrates (for oysters, scallops, clams and mussels, respectively) are all covered. I would have liked to see more information on morphological and anatomical changes that occur during metamorphosis in bivalves to the juvenile form, as well as information on species-specific variability in time necessary to complete metamorphosis and a section on pedal-palp feeding in clams and scallops.

Part Seven is focused on spat rearing and includes specific information on remote setting methods for Pacific oysters and general techniques common to all down-welling and up-welling technology. Again, this section is liberally accompanied by excellent diagrams and photographs describing systems in use and some good graphics that describe growth trajectories for commonly grown bivalves that will give the reader a reference to judge their own systems with respect to spat growth and survivorship.

The final section of the manual focuses on the future of hatcheries, and includes information on polyploidy and other genetic techniques associated with the domestication of bivalves. I believe this section could have been eliminated and all of the material interjected in text boxes within the body of the text in the various sections. The use of polyploidy in cupped oysters for example has been a staple for years in many hatcheries and provision for basic methods to induce polyploidy could have been included in the sections on bivalve husbandry, where appropriate. Similarly, both quantitative and crossbreeding genetic techniques for potential improvements in yield could have been included within the body of the manual. I would have also liked to see a section on cryopreservation of sperm. These are staples of land-based agriculture and livestock rearing and should be incorporated at some level within the bivalve production industry to a much greater degree than we see today. At the very least, these changes could have put the material within easy reach of the reader and helped to promote thinking along these lines. This is a minor quibble as authors M.M. Helm and N. Bourne with compilation and editing by A. Lovatelli have put out an outstanding resource that will become the standard for years to come. I wish the manual were produced in waterproof paper, as well because it will and should become worn out with time and use! The good news is that when the hatchery copy becomes dog-eared with use, you can order an online PDF replacement from the FAO website (Publications-Sales@fao.org). It should also be noted that this manual is in the process of being translated into Arabic, Chinese, French and Spanish and will hopefully be available in 2006.

Joth Davis

Upcoming Events

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 Resources." 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://infremer.fr//icsr05> for more information on this meeting.

ERF 2005: October 16-21, 2005, Norfolk Marriott Waterside Hotel & Convention Center and Sheraton Norfolk Waterside Hotel, Norfolk, VA. This year's theme is Estuarine Interactions: Biological-physical feedbacks and adaptations. For more information, visit <http://www.sgmeet.com/erf2005/>.

AFTC and SSTSA Fall 2005 Joint Meeting: November 6-12, 2005, Norfolk, VA. Oceans, Seafood & Human Health: The Changing Role of Seafood Technology. The 50th meeting of the Atlantic Fisheries Technology Conference and the 29th meeting of the Seafood Science and Technology Society of the Americas will focus on the interdependence between fisheries, seafood technology, and human health. For more information, visit: <http://www.aftc2005.org/>.

Aquaculture America 2006: February 13-16, 2006, Riviera Hotel and Casino, Las Vegas, Nevada. For more information, contact the Conference Manager at worldaqua@aol.com.

6th International Abalone Symposium: February 19-24, 2006, Puerto Varas, Chile. Note change in dates from the Spring Newsletter. Abstracts are due December 31, 2005. For more information, contact Pete Haaker at phaaker@dfg.ca.gov or visit <http://www.abalone2006.cl/>.

National Shellfisheries Association 98th Annual Meeting: March 26-30, 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 Evan Ward (see back page for contact information).

Nominations Sought

Nominations are being solicited for the next ballot. While we always manage to assemble a strong slate of candidates, it is not without difficulty! This year we are seeking candidates for Vice President, Secretary and Member-at-Large. Please send nominations by OCTOBER 31, 2005 to Sandy Shumway (contact information on back cover.)

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