

National Shellfisheries Association

QUARTERLY NEWSLETTER

MAY 2004, POST-MEETING

WALDOBORO, MAINE



President's Message

Hawaii is now a pleasant memory and, by all accounts, a very successful meeting. There were over 3100 registrants and >1400 abstracts representing 75 countries. Papers were presented in 17 concurrent sessions and we managed to consume almost one ton of shrimp! The Triennials are a special challenge, and I would like to offer a heartfelt thanks to all who helped to make it a fun and profitable meeting. A special thanks to John and Mary Cooksey who oversee the entire operation and worry about the smallest details. Much goes on behind the scenes and the true testament to their talent is the fact that nobody knows it and the meetings run so smoothly!

It was a special honor to announce that Susan Ford is the newest recipient of the Wallace Award. Susan's contributions to the shellfish industry have been many and the recognition is overdue and truly deserved. CONGRATULATIONS, Susan!

It was business as usual at the EXCOM meeting and most of the material will be covered elsewhere in this newsletter. My thanks to all the Committee Chairs and members for their diligence during the year, it made the meeting run efficiently and quickly. I think we set a record for adjournment (could it have had anything to do with Waikiki Beach?). Congratulations to the newly elected EXCOM members: Secretary, Marty Chintala, and Member at Large, Joth Davis. Gary Wikfors, now Vice President, was serving as MAL and the EXCOM voted to fill the remaining year of his term with the other candidate from this year's ballot, Karolyn Hansen.

Mel Carriker's history of NSA, *Taming of the Oyster*, was unveiled and is now for sale.

I am pleased and excited to announce that LaDonn Swann has agreed to take on the responsibilities of WEB Master. LaDonn comes to us with a wealth of experience and talent and I am confident that our WEB page will soon reflect these attributes. He will be working in collaboration with Scott Siddall of the Longsight Group and assisted by Steve Roberts



Sandy Shumway and Jane Lubchenco

and Maille Lyons. Watch for changes and please use the WEB site. Let us know what works, what doesn't, and what you'd like to see there!

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In this issue:

- ***Student Awards***
- ***Images from Hawaii***
- ***Three Book Reviews***
- ***NSA Proclamations***

Special Session Ideas **Requested for Philadelphia '05**

Please send your ideas for special sessions for the 2005 Meeting in Philadelphia to gary.wikfors@noaa.gov. Several of you have already expressed interest in organizing or helping to organize sessions devoted to specific topics; please send me an email reiterating your interest. New ideas are needed as well! Please organize your thoughts sufficiently to suggest a concise, but descriptive title for your session, e.g., "Disease" probably is not specific enough if what you intend is "Diseases of Oysters" or "Environmental Stress and Disease Susceptibility," etc. I will do my best to put like-minded volunteers in contact with each other to possibly share responsibilities for sessions on popular topics. Special session organizers will be responsible for soliciting presentations on their topic to ensure a critical mass and deciding if contributed abstracts fit within the subject and time constraints of their sessions. The call for abstracts will include a check box for each session and check boxes for "Invited" or "Contributed" to facilitate the process.

Organizing a special session is a great way to ensure that your favorite topic is covered, and colleagues you invite to participate will appreciate knowing that their work is of interest – sometimes that's all it takes to convince someone to come to the meeting!

Gary Wikfors

Treasurer's Update

Well I hope that those of you that attended Aquaculture 2004 enjoyed it and arrived home safely without a mountain of work piled up on your desk. Although I have not yet heard how well the meeting did financially from the conference managers, I can tell you that all indications were that it was quite successful. As for NSA's internal finances at the meeting we did quite well with a total earnings of \$6,116! The NSA booth was featured prominently in front of the registration desk and next to the entrance to the Trade Show. Thanks to whoever pulled strings to get that location as we ended up pulling in just over \$3,000 in sales and memberships at the booth. Tuesday night's Student Auction went off quite well netting just over \$2,005 with Gef Flimlin putting us over the \$2k mark. But that wasn't enough for Gef. With \$553 worth of encouragement, Gef cooled off in the hotel pool at the President's Reception. Way to go Gef. Don't worry if you think you missed out on some great NSA buys – Sandy still has plenty of stock— hats, shirts, mugs, pins,

cookbooks, and don't forget *The Taming of the Oyster* by our own Mel Carriker — so don't be shy and give her a call if you need something for yourself, your students, your advisor, friends or family. It all goes to support a great cause.

Remember, NSA is only as strong as its membership, so be sure to recruit your colleagues. NSA remains one of the best bargains around with 2004 dues at a mere \$65 and 2005 dues at only \$75. Student dues will remain at the low rate of \$35 annually. So the message is, get out there and recruit a colleague.

Dave Bushek
Treasurer

Endowment/Student Awards **Committee Report**

The Endowment/Student Awards Committee is pleased to report that fifteen students were assisted by NSA travel and registration awards for this past meeting. Six judges reviewed travel applications this year: Marty Chintala (USEPA), Gary Wikfors (NMFS), David Bushek (Rutgers University), Sandra Shumway (University of Connecticut), Fu-Lin Chu (VIMS), and Aswani Voley (Florida Gulf Coast University).

Lodging Awards were awarded to Mary Lyons (University of Connecticut), Lisa Milke (Dalhousie University / National Research Council of Canada), Nicole Brun (Dalhousie University / National Research Council of Canada), Erin Rasnake (Florida Gulf Coast University), Severine Patat (Medical University of South Carolina), Celine Barre (Dalhousie University / National Research Council of Canada), Daphne Munroe (University of British Columbia), Michael Goedkin (University of Connecticut), James Williams (University of Auckland), Scott Gifford (The University of New Castle).

Continued on page 10.

Metamorphosis

Gustavo and Lisa Ragone Calvo have recently moved to NJ where Gustavo accepted a position with the NJDEP Bureau of Shellfisheries. Just prior to moving they recruited Gabriel as the newest addition to their family. Mom, Dad and kids are adjusting well to their new digs.

MEETINGS WITH MIKE

1979, a post-doc in a 1967 VW beetle in search of the elusive *Mulinia lateralis* – and a promise from THE Mike Castagna that if I drove south we'd easily collect as many as I needed....

I had first corresponded with Mike in 1975 while a graduate student in North Wales, and over the years had conjured up an image of the man – tall, athletic, boisterous (his letters certainly were, and yes, in those days it was paper, pen and stamp!), and the walking encyclopedia of shellfish. Now was my chance to meet the man behind the reprints.

I arrived at Wachapreague a day, two flat tires and a leaky head gasket later, and there he was, sitting at his desk (feet on it) reading – slight of build, quiet, mud-stained baseball cap, very worn sneakers and an infectious grin. He jumped up, said “you must be Sandy”, grabbed a large bucket (did I mention that Mike was an optimist?) and we immediately headed into the field.

We searched as long as the tide allowed and headed back with the same empty bucket to “Island House” (it has since burned down several times) to rethink our plan of attack. Thus began a friendship that would span almost three decades.

My involvement with shellfish to that point had been as a source of summer income, experimental animals and dinner. Mike enticed me to attend an NSA meeting and his enthusiasm proved infectious. I suddenly found myself immersed in shellfish and editing a journal. Mike was then Chair of the Publications Committee and remained Chair for the next 15 years – a steady, sensible, guiding force with a sixth sense for knowing when I needed, as he used to put it, “an atta boy” to keep going!

Mike's accomplishments were many and will be delineated elsewhere. It's been said that what Mike didn't know about shellfish culture simply hadn't been discovered, and he shared that knowledge freely. NSA simply ran out of awards and accolades after Honored Life Member, Wallace Award and, most recently, the Castagna Scholarship. The words that keep surfacing are gentleman, leader and teacher. He was all of these.

I asked Mike once why he thought there were so few women in shellfish biology. He noted that in the early days, it was heavy duty physical labor and then quipped, “Sandy, Victor Loosanoff made *me* cry, no room for women there!” No fear of that with Mike. He was gentle, compassionate, encouraging, and generous with his time and knowledge.

Mike was a true inspiration. I marvel still at the genuine passion and enthusiasm he maintained for his beloved

bivalves (with the occasional relapse into gastropods) throughout his career. I once asked him for some juvenile scallops and quahogs to be used in one of my miniature scenes. A small parcel arrived and I expected to find some discarded shells from the hatchery. I found instead, two carefully wrapped packets marked Q and S with live animals in wet towels and a note from Mike that said, “You kill ‘em”.

Mike was a seemingly permanent fixture at NSA meetings. I remember how disconcerted he was when concurrent sessions were first introduced. Said he didn't want to miss anything important. He served as a sympathetic judge for nervous students, he was our most accomplished dancer, and preferred hotels with swimming pools. He was the most graceful swimmer I've ever seen. And a role model for all.

Collaborations, conferences, bus tours, boat tours, mudflats, hatcheries. At one point we joked about writing a ‘Field Guide to North American Shellfish Hatcheries’, we'd seen so many. But a hatchery tour with Mike was an education unto itself – who guessed there was so much to be learned about pipes and pumps, or that wooden, spring-loaded clothespins could be used for so many things?

Mike told me how it was and he told me how he'd like it to be. We never found any *Mulinia*, but I found Mike Castagna and it was a trip worth taking.

Sandy Shumway



Sandy Shumway and Mike Castagna at Aquaculture '02 in Orlando, Florida.

CONTRIBUTIONS IN MIKE'S MEMORY MAY BE MADE TO THE STUDENT ENDOWMENT FUND OF NSA TO SUPPORT THE CASTAGNA STUDENT GRANT FOR APPLIED RESEARCH.

Checks made out to 'NSA/Castagna Scholarship' can be sent to Nancy Lewis, VIMS Eastern Shore Lab, PO Box 350, Wachapreague, VA 23480.

Behind the Scenes with Mel Carriker Writing Taming of the Oyster

In a relaxed moment when my guard was down, probably during a happy hour at a National Shellfisheries Association (NSA) convention, Sandy Shumway mentioned to a small group of us the high desirability of some one writing a history of NSA especially as the centennial anniversary of the Society is rapidly approaching (actually May, 2009). Looking hopefully at me, she asked if I might be interested in writing it. Startled, I hedged, and nothing more was said. I must confess the project was then farthest from my mind.

Realizing the importance, and yet the magnitude of the project, I continued to churn the request over in my mind. As I considered that I am the oldest living member of NSA, have held all of the NSA officer ranks, have known personally many of the shellfish industry and shellfish biology people going back to the mid 1940s, have attended most of the joint conventions with the shellfish Industry, have had the experience of writing my first book (my family biography, *Vista Nieve*), and am retired and could spent full time on the research and writing, I realized I really had no choice but to accept Sandy's request! So, as is my wont, having talked myself into the project, I looked forward with genuine enthusiasm to getting started.

But where to begin. As I typed a tentative outline of the content of the proposed History, I soon recognized that I would want to delve earlier than the renaming of the National Association of Fisheries Commission to the NSA in 1930 to its earliest predecessor, the National Association of Shellfish Commissioners (NASC) originating in 1908. And because NSA and its predecessors from their origins worked in close partnership with the shellfish Industry, this also meant going back to the start of the Oyster Growers and Dealers Association (OGDA) in 1908 and its later administrative organization the Oyster Institute of North America (OINA)! It further dawned on me that I would be writing the History through two world wars, a major United States depression, and an evolving shellfisheries technology in all of this across almost a century of time! I gasped! This was all much more than I had anticipated! But, there was no turning back now - and besides I was thoroughly enjoying the planning and the initial searches!

Then I had to face the mechanics of recording the notes and related information resulting from my search, as well as

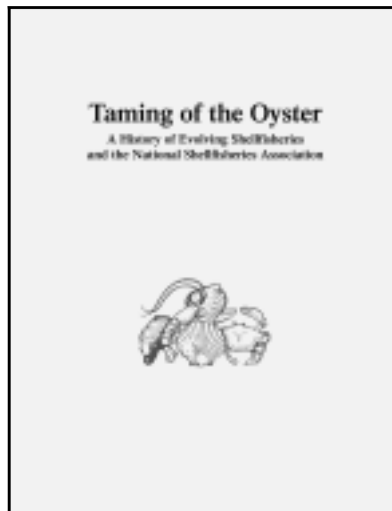
typing the actual text of the History. I had typed *Vista Nieve* on my trusty old electric typewriter, but this could not store the innumerable topics of the History that were growing more numerous with each passing week. So I purchased a Gateway computer, Windows 98, and a Hewlett Packard printer. After a short course in nearby Rehoboth Beach, the invaluable help of several of our College of Marine Studies (CMS) secretaries, and a few frustrating erasures, I found myself fairly at home with word processing, emailing, and storing information on some 60 windows and, of course, now using a standby Zip 100!

In the meantime several of us NSAers started passing the word asking anybody and everybody who might have historical information and photographs to loan them or give them to me. These general broadcasts were a total flop. So I turned to a personal approach; this paid off: I telephoned or wrote many of the NSA and OGDA, "old timers", and called the librarians of most of the east coast marine laboratories.

A wonderful telephone conversation with Libby Wallace, Director of the OINA, 1962-70, was highly informative; as was detailed correspondence with Roy Martin, Executive Director of the Shellfish Institute of North America, 1983-1999, which later became the Molluscan Shellfish Institute. The National Marine Fisheries Laboratory (NMFS) Laboratory in Milford and the NMFS Laboratory in Woods Hole helped generously sending me CDs with valuable photographs of the old Bureau of Fisheries laboratories and of Victor Loosanoff and Paul Galtsoff. Scott Siddall shipped me records that he had accumulated as past Historian. John Kraeuter from the Haskin Laboratory in New Jersey brought me boxes of the old NSA and OGDA-SINA files of Thurlow Nelson. Sandy Shumway mailed me xerox copies of a number of the NSA

Proceedings not in our CMS library. John Kraeuter, Walter Canzonier, and I, with Alice Cronin's permission (Gene had passed away earlier), drove to Annapolis and searched the Cronin's basement for NSA-OGDA records; alas, there was none there. Apparently Gene's records had been shipped to the Virginia Institute of Marine Sciences library, and from there went to the Haskin's Laboratory library. So probably I already had all that was available. To all of this I added my extensive collection of relevant correspondence dating from 1942. Then John Ewart and I filed the correspondence individually, chronologically in cellophane envelopes in two large notebooks for ready reference. We did the same with NSA newsletters, going back, incompletely, to the earliest available mimeographed copies in 1956.

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But I still lacked the earliest historical records. The Rutgers University Archives and the Smithsonian Archives were unproductive. As were the NOAA central library in Silver Springs; the National Fisheries Institute Library in Arlington; and the U. S. Department of the Interior Library. Then a contact with Clyde MacKenzie synchronistically alerted me to the invaluable store of old shellfisheries records in the Fishing Gazette, which began publication in the late 1800s. Clyde suggested the New York City Public Library as a source for the news journal, but borrowing from them turned out to be complicated. I was told by the librarian that the only other library in the country to hold the Fishing Gazette is the Library of Congress. I checked. Yes, they have the full series - but one year and the publication is illustrated! So, happily, I spend a week in Washington, D. C. going through the Fishing Gazette and other old news journals. I came back to my office in CMS with a two-inch thick stack of xeroxed articles! I now had most of what I needed.

I then started reading my sources chronologically, entering relevant notes, quotations, and comments, by subject and by year, in the appropriate windows in my computer.

Little by little, painfully it seemed at times - Sandy Shumway and I collected about 100 photographs, mostly of people, to illustrate the History. Photographs not already on a CD we entered on one to provide optimal reproduction during the printing process.

Now I could no longer procrastinate. I had read all my sources, and my computerized notes and comments were ready. I could begin writing. I must confess, though, as I faced my computer that first morning I felt a bit intimidated, not only by the enormity of the task ahead of me, but by the hurdle of coming up with the phrasing for that first sentence! Well, I typed what I thought at the moment was a brilliant beginning (which changed many times in the course of the writing), and continued motivated by rising adrenalin. I was now psychologically ready to go on.

I decided to present the History in chronological order using the annual joint convention as the center piece for each year. This was logical as most of the activities of each year were summarized in convention news releases and newsletters. From these also came the trends in the shifting, sometimes complex, interrelationships among the industry men and scientists. Correspondence, newsletters, and after 1940 my personal contacts, gave me the background for writing vignettes on several of the leading personalities of the associations, for example, able, feisty Henry C. Rowe, first Vice President (1909) of the OGD, Charles R. Bacon, highly respected first President of the NASC (1909-1911), and Paul S. Galtsoff, scholarly President of NSA (1939-1941).

So each day in my office at my computer (I now wonder how I ever managed without it before) I reviewed and revised the previous day's writing, and wrote a few new paragraphs. And so it went for weeks. Finally the first draft of the manuscript was completed. Sandy sent copies to some 12 reviewers. Many helpful comments came back, and these were duly considered and where pertinent included in the final revision. After several readings by Sandy, and a final, final reading and revision by me, the manuscript, with prints and CDs of the photographs, were sent to Sheridan Press for printing. You have seen the final publication: Sandy and the Sheridan people did well.

I started the research for the History in 1997. Seven years later the book was on sale at the NSA booth at the 2004 Aquaculture Conference in the Honolulu Convention Center, Hawaii. What kept me at my computer all those weeks? An intense interest in the subject, of course, but more than that, writing a memorial to all those plucky individuals, both shellfishermen and oyster biologists, who have given so much of their professional lives to taming the oyster.

Mel Carriker

Taming of the Oyster

A History of Evolving Shellfisheries and the National Shellfisheries Association

by Dr. Melborne Carriker

Send your orders to:

Dr. Sandra E. Shumway
Department of Marine Sciences
University of Connecticut
1080 Shennecossett Road
Groton, CT 06340

Make checks (\$25.00) payable
to the NSA.

Proclamations of the 96th Meeting of the National Shellfisheries Association

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks Steering Committee Members for Aquaculture '04 **Sandy Shumway, Pat Mazik, and Carl Webster**, and Aquaculture '04 Program Committee **Sandy Shumway**, Chair; **Evan Ward, Joe Tomasso and John Nickum**, Members and **John and Mary Cooksey**, Conference Managers for their outstanding contributions to the organization and success of Aquaculture' 04 and the 96th Annual Meeting of the National Shellfisheries Association.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks **Sandy Shumway**, President, for her outstanding contributions to the prosperity and well-being of the National Shellfisheries Association during the past year; her continued efforts to foster communication and collaboration between scientists and industry members, and for activities promoting shellfish aquaculture in the public arena.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks the officers: **Sandy Shumway**, President; **Lou D'Abramo**, President-Elect; **Karolyn Mueller-Hansen**, Vice-President; **Dave Bushek**, Treasurer; **Jonathan Davis**, Secretary; and **Loren Coen, Gary Wikfors, and Rick Karney**, Members at Large; and the chairs of the following committees: **Sandy Shumway**, Program Chair; **George Abbe**, Audit-Budget-Finance Committee; **Danielle Kreeger**, Awards and Elections Committees; **Gef Flimlin**, Revenue and Investment Committee; **John Kraeuter** and **Jay Parsons**, Publications Co-Chairs; **Jonathan Davis** and **Rick Karney**, Industry Committee; **Marty Chintala** and **Ami Wilbur**, Membership Committee; **Fu-Lin Chu, Maureen Krause** and **Aswani Voley**, Endowment/Student Awards Committee; **Steve Allen**, and **Nature McGinn**, Student Organization (The Recruits) for their outstanding contributions to the prosperity and well-being of the National Shellfisheries Association during the last year.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the*

*National Shellfisheries Association formally honors and remembers **Mike Castagna** for his outstanding contributions to the shellfish industry, and his lifelong dedication and service to the National Shellfisheries Association. Mike's shellfish legacy lives on not only in the thriving shellfish aquaculture industry that was his dream, passion, and creation; but also in the hearts and minds of so many in the shellfish community who knew him as a colleague, mentor and friend. He was a giant in our industry and lives on in our memories.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks **John Kraeuter** and **Jay Parsons** for conducting the Publications Committee's poll of the membership to ensure NSA member satisfaction with the various communication vehicles of the association.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks **George Abbe** for his 20 years of financial guidance and continued dedication to the National Shellfisheries Association as Chair of the Audit-Budget-Finance Committee.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes, thanks and congratulates **Mel Carriker**, NSA Historian, for his five years of dedicated scholarship that has resulted in the successful completion of "Taming of the Oyster, A History of Evolving Shellfisheries and the National Shellfisheries Association." Professor Carriker's book provides a thorough written record of our historic Association and will forever serve as the reference to which the shellfish community and NSA turn to learn about our heritage.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks **Bob Rheault, Karen Rivara, Rick Karney**, and **Gef Flimlin** for their efforts in organizing the East Coast Shellfish Growers Association.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the*

Continued on page 14.

Audit-Budget-Finance **Update 2004**

Total revenues for the 2002-03 fiscal year (October 2002 through September 2003) were \$201,132 and expenses were \$204,688 for a decrease of \$3,556 to our overall balance, which ended the year at \$112,330 including \$21,718 in Student Endowment Funds. At this time, however, all balances are well ahead of where we were 2 years ago.

Administrative revenues and expenses for 2002-2003 were \$45,676 and \$21,489, respectively, for an increase of \$24,187. Publication revenues were \$101,704 and expenses were \$136,734 for a decrease of \$35,031. And revenues from our annual meeting in New Orleans in 2003 were \$47,825 while expenses were \$39,971 for an increase of \$7,854.

The proposed budget for the 2004-2005 fiscal year, which begins October 1, 2004 projects a gain of about \$20,850 for administrative activities, a decrease of about \$19,700 for publications, and a gain of about \$8,950 from our annual meeting which will be in Philadelphia in April 2005. If these revenues and expenses are realized the NSA balance will increase by about \$10,100. Since the *Journal of Shellfish Research* is our most important product, and because it is expensive to produce with the quality we expect and receive, we realize that its production cost will generally (always) exceed publication revenues. Administrative Revenues (primarily Member Dues) and Meeting Revenues subsidize these excess costs.

NSA financial ledgers were examined in late 2003, but not in the same detail as when the books move to a new treasurer. Our financial condition, however, is solid, and with minor adjustments in revenues the future of NSA looks even better.

George Abbe
Audit-Budget-Finance Committee

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

Teri King and John Scarpa have agreed to co-chair the Membership Committee and I hope you will all work with them towards increasing our ranks.

Danielle Kreeger has the Philadelphia meeting (April 2005) well in hand. Gary Wikfors is the Program Chair, so please contact them if you have ideas for special sessions or are willing to help out. Mark your calendars, future meetings are planned for southern California (2006), San Antonio (2007 triennial), and our centennial meeting in 2008 will probably be held in either Providence or Newport, Rhode Island. The site for 2009 is being discussed, most likely that well-known vacation hotspot, Mississippi!

In closing, please take a moment to think about NSA. What would you like to see for our future and what are you willing to contribute? Our continued success depends upon you.

Sandy

Now Available!

Quahogs in Eastern North America: Part I, Biology Ecology, and Historical Uses by Clyde L. Mackenzie Jr. et al., Volume 64, No. 2, 2002, (55 pages)

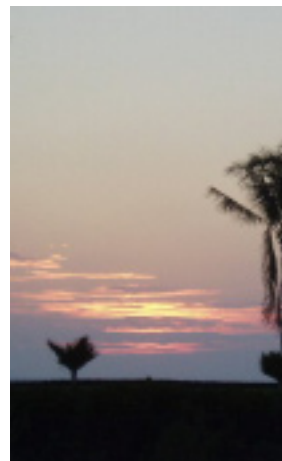
Quahogs in Eastern North America: Part II, History by Province and State by Clyde L. Mackenzie Jr. et al., Volume 64, No. 3, 2002, (64 pages).

Both volumes are published by the Marine Fisheries Review, US Department of Commerce and are available for \$12.00 per copy.

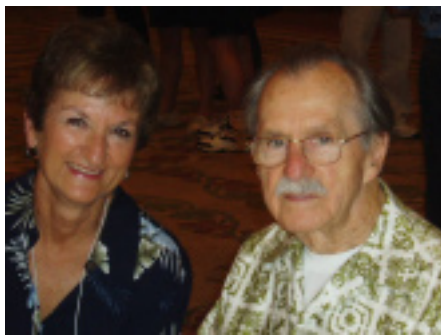
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IMAGES FROM AQUACULTURE '04, HONOLULU



FROM ONOLULU, HAWAII



Pacific Coast Section Report

The 57th annual meeting of the Pacific coast Section of the National Shellfish Association was held October 8-11, 2003 in Portland Oregon. The meeting was held in conjunction with Pacific Coast Shellfish Growers Association (PCSGA). Sixty presentations were made and organized into theme sessions for Water Quality, Shellfish Management and Assessment, Geoduck Management and Culture, Crustacean Management and Diseases, Marketing Visions, Trends, and Strategies, Burrowing Shrimp, Genetics, Shellfish Aquaculture, Native, Alien and Invading Species and Molluscan Imports, Exports and Research.

Twelve student presentations were made at this year's conference. The research and quality of the student papers continued to be of highest caliber. Kirstin Holsman (University of Washington) won the NSA-PCS Best Student Paper Award. Kirstin's paper, co-authored with P. Sean McDonald, was *Spartina Impacts on Dungeness Crab Populations in Willapa Bay*. Support funding for students presenting papers at the meeting is provided through the Ken Chew Student Fund. The fund provides conference registration, hotel rooms, publishing costs for abstracts in the *Journal of Shellfish Research*, banquet tickets, and the Best Student Paper Award. The fund is supported through a variety of fund-raising activities including student sponsorship, coffee break sponsorship, silent auctions, and other functions.

All NSA-PCS executive positions changed hands this year with the following election results: Graham Gillespie (outgoing chair) handed the reins to Rich Childers. Graham served as chair for 2 consecutive years and his efforts and enthusiasm are greatly appreciated by all members. Don Velasquez (outgoing Secretary/Treasurer) was elected vice-chair and Kelly Toy was elected Secretary/Treasurer. Jennifer Whitney and Joe Schumacker (outgoing Vice-Chair's) and Don Velasquez have been instrumental in planning and coordinating NSA-PCS functions. Jennifer and Joe will continue working with the incoming executives. The elected Members-At-Large are: David Fyfe, Jennifer Whitney, Russel Rogers, Jon Agosti, and Andrew Suhrbier.

The 2004 meeting is scheduled for October 12-15 and will be held at the Sheraton Hotel in Tacoma WA. The first call for papers will be announced in March 2004. Proposed session themes include: Shellfish Disease, Shellfish Assessment and Management, Crustacean Management, Estuarine Ecology, Monitoring and Impacts of Low Dissolved Oxygen Events, Genetics and Hatchery Techniques, Shellfish Marketing, Water Quality and Viruses, and Harmful Algal Blooms. In addition to these, sessions on Geoduck, Abalone, Echinoderms and Mussels

may also be scheduled. Registration information will be available on the PCSGA website' (<http://www.pcsga.org>) and those interested in presenting papers at the meeting can contact Rich Childers (contact information on back page)

Mr. Richard Childers, Chair
Pacific Coast Section

Student Awards... continued from page 2.

Registration Awards were awarded to Vincent Encomio (Virginia Institute of Marine Science), Heidi Pye (University of New Hampshire), Kristi Stevens (University of Salisbury), Maryse Delaporte (IFREMER de Brest), Dane Frank (University of Connecticut).

As usual, there were several excellent oral and poster presentations by students at the Aquaculture 2004 meeting. The NSA is pleased to announce the winner of Thurlow Nelson Oral Presentation Award and Gordon Gunter Awards.

The winner of Thurlow Nelson Oral Presentation Award is Mr. Scott Gifford for his presentations titled 'Monitoring for potential negative environmental impacts associated with pearl aquaculture' and 'Pearl aquaculture: the first candidate for zooremediation'. Mr. James Williams (Patterns of reproduction and spawning behavior for scallops *Pecten novaezelandiae* in Northwestern New Zealand) and Mr. Steve Allen (The effects of air exposure and hypoxia on the blood physiology and immune response of the Pacific Oyster *Crassostrea gigas*) received Honorable mentions.

The winner of Gordon Gunter Poster Presentation Award is Mr. Tarquin Dorrington. His presentation is titled 'Antimicrobial peptides in shellfish aquaculture: effects on oyster pathogens and gut flora'. Ms. Erin Rasnake received an Honorable mention for her poster presentation 'Collaboration of community, regulatory agencies and academia in the restoration of oyster reefs in Southwest Florida estuaries: an adaptive management strategy'.

We would like to thank Sandy Shumway, Maureen Krause, Paul Rawson, Terri King, William Fisher, Loren Coen, Albert Choi, Jean-Francois Samain, and David Bushek for their help in judging student presentations. Lot of people provided input and comments on student presentations. Our sincere apologies if we missed acknowledging some student judges.

Respectfully Submitted,
Aswani Voley and Fu-Lin E. Chu

Book Reviews

Taming of the Oyster; A History of Evolving Shellfisheries and the National Shellfisheries Association by Melbourne R. Carriker. NSA, 2003, 264pp.

This is the story of the oyster industry and the movers and shakers to a large extent as chronicled by the published proceeding of conventions of an association of oyster industry members and one of the molluscan scientists and events that influenced topics addressed at these sessions. The industry organization came into being in 1908 as the Oyster Growers and Dealers Association and over the years evolved into the Shellfish Institute of North America (SINA). The National Association of Shellfish Commissioners came into being in 1909 and over the years this became the National Shellfisheries Association in 1930, which is chiefly made up of shellfish scientists. How both of these organizations reacted to wars, financial panics, pollution, and diseases attributed to shellfish is recounted. A contentious topic at many of the conventions centered around who should regulate the oyster industry, the federal or state government.

The interplay between the two groups is most vividly described not only from published reports, but from the author's experience working with both entities. For many years the industry group and the scientific group had joint meetings often with SINA picking up much of the tab for NSA. Eventually the two grew apart and the reasons for this are discussed.

The author recounted the activities of those influential in the life of these organizations along with an insight into their backgrounds and accomplishments. This made for very entertaining reading. Doctor Carriker was able to do this because of his long career as an oyster scientist working with many giants of the industry and science as well as teaching and advising those up to the present generation.

The means of disseminating information generated at the conventions is addressed. Mimeographed summaries and trade journal reports were searched out and summarized. As the meetings became more sophisticated so did the need for more formal publications. Doctor Carriker was instrumental in addressing this problem for NSA and was able to describe the trials and tribulations of getting both the *Proceedings of the National Shellfisheries Association* and its successor the *Journal of Shellfish Research* started. The origin and content of the *NSA Quarterly Newsletter* is given as well as those most responsible for its success.

A listing of NSA of officers, board members and chairs of committees, along with Honored Life Members and recipients of the David Wallace Award is included in tabular form. Research grants and competitive award recipients are also listed.

Continued on page13.

Microbial Approaches to Aquatic Nutrition within Environmentally Sound Aquaculture Production Systems. Edited by Cheng-Sheng Lee and Pat O'Bryen. World Aquaculture Society, 2002, 187pp. ISBN: 1-888807-10-5.

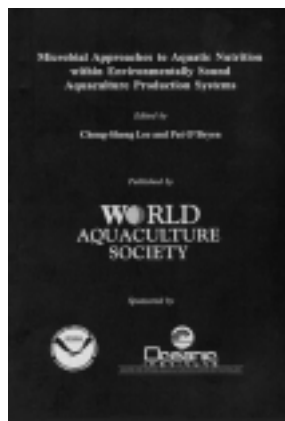
This book is a compilation of papers presented at a workshop titled the same in Honolulu, HI in August 2001. The topic is timely, as more and more data are pointing towards substantial microbial contribution in terms of nutrition in shrimp production ponds, with the rest of the aquaculture community watching with keen interest. The microbial food web is often overlooked despite the preponderance of evidence that is accumulating detailing the roles of microbes in aquaculture production facilities and the implications, both positive and negative, of monitoring bacterial populations within these production facilities.

The book is divided into twelve papers that are fairly unique in terms of their subject matter. There is some repetition from chapter to chapter in terms of introductory

material concerning microbes and the roles they play in nature which helps the uninformed reader in accumulating baseline knowledge. The book chapters cover everything from nannobacteria and thraustochytrids to zero-exchange shrimp production, including an enlightening chapter on microbial interactions within the rumen ecosystem—a chapter that at first glance looks very out of step with a book on

aquaculture nutrition, but upon reading, has some very keen insights on microbial interactions which could lead to possibilities for application in aquatic nutrition. There is a very good chapter reviewing the microbial loop in aquaculture as well as an informative chapter on the work at the Oceanic Institute on the beneficial effects of pond water on growth of—*Litopenaeus vannamei*. Another well written and informative chapter deals with development of intestinal microflora in flatfish, with the development of gut microflora in halibut being related to osmoregulation during yolk sac absorption. A chapter dealing with the role of bacteria in the nutrition of bivalve mollusks has a nice section on laboratory experimental methodologies that are helpful in terms of comprehending how much of these data have been collected and analyzed. While a majority of the

Continued on page13.



Book Review

Molluscan Shellfish Farming by B.E. Spencer, Fishing News Books, Blackwell Science Ltd. (2002), 274 pp. ISBN 0-85238-291-X.

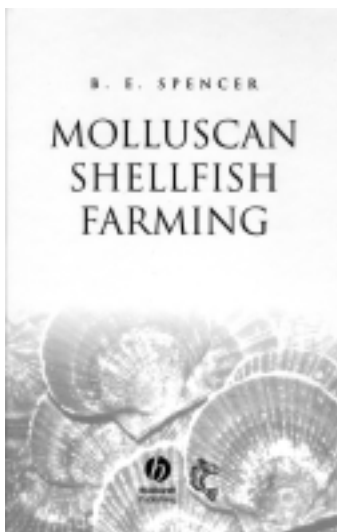
I have several shelves of publications from Fishing News Books. This United Kingdom company has produced useful reference texts on commercial fishing and aquaculture topics for decades. *Molluscan Shellfish Farming*, by B. E. Spencer, one of their most recent volumes, will now be found on my reference shelf.

The publication is derived from a Buckland Lecture delivered by the author in 1995. This prestigious series has continued since 1930 on fisheries related topics. Spencer's lecture forms the basis of the book's first chapter entitled *Bivalve cultivation in the UK: structuring influences*. Since U.S. law is largely based upon British common law concepts, the discussion of legislation and rights to grow and harvest shellfish are similar in many respects and should be interesting to the legal novice. Also of interest in this chapter was the experience of uncontrolled importation of shellfish seed after the collapse of the flat oyster industry in the UK in the 1900s. Pests accompanied some seed imported from other areas and finally led to control orders in 1974 that have aided in minimizing the spread of unwanted organisms.

The experience of the UK in introducing several species of non-native bivalves was similarly intriguing. These were brought in under quarantine and information is provided on the species, origin, and fate of the animals. Among those are the Pacific and American (Eastern) oyster, and the Manila clam. Protocols developed under the auspices of the International Council for the Exploration of the Seas (ICES) to assess the impact of non-native introductions are referred to throughout the volume. With the current examination of the Suminoe oyster *Crassostrea ariakensis* ongoing here in the Mid Atlantic, these are especially relevant. The issue has, of course, been faced before in other countries. "Probably the most contentious issue with introducing non-native species is associated with their breeding potential", writes Spencer, "For the past 30 years, it has been (UK) government policy not to introduce a species where there is a risk of it becoming established and creating self-sustaining populations." They seek to protect the environment while all possible effort is made to support a healthy aquaculture

industry. Indeed, the need for aquaculture is made clear as the author addresses a primary shortcoming of reliance on natural reproduction, that of irregularity of spatfall.

A chapter discusses the *General biology of bivalves with respect to cultivation*, providing an overview of the natural functions of commercially important shellfish. While certainly not inclusive of all information on the subject, the author provides basic data on the topic. He covers many species and does so concisely and with appropriate diagrams and bulleted descriptions of techniques that provide a clear understanding of the methods being described. A statement near the end of the chapter brought back memories of my late friend Max Chambers and his original hatchery near Nanticoke, Maryland. Spencer noted that, while site selection is an important consideration in hatcheries, "Successful hatchery production of larvae and spat is related more to the skill and experience of the staff than to the excellence of the facilities and equipment."



It is when Spencer develops his chapters on shellfish cultivation techniques that the volume becomes very useful. His discussion is enhanced with photographs showing grow-out techniques in use around the world. These illustrate a basic fact of successful shellfish production – methods must adapt to local hydrological features of the waters being used. High, three-dimensional grow-out methods are used in areas where there is high tidal amplitude and lower, more spread-out methods are used in areas in which tides are low in fluctuation. He includes grow-out equipment from many nations around

the world from bottom culture in the Pacific Northwest to rotating cylinders used in Australia. It is clear that the author has a broad range of knowledge in shellfish culture.

Chapters are included on oysters, clams, mussels, scallops, and abalone. These are logically planned and well written. There are diagrams of culture methods along and photographs of actual deployment. Spencer provides historical information about shellfish culture, showing that humans have had a fascination with growing these animals for centuries. The description of Oriental rock and stick culture shows that sophisticated equipment is not necessarily required for cultivation – only human ingenuity. Of course, suitable laws or lack of prohibitions on growing areas and methods are critical for success as well. This is a primary reason why shellfish aquaculture in Maryland has had such contentious history. These chapters, as with all others in the book, are well referenced with citations.

Continued on page 14.

The ECSGA, Up and Running!

The East Coast Shellfish Growers Association (ECSGA) is a bit more than a year old, and is getting up to speed in its mission to serve the needs of the shellfish industry from Maine to Florida. The ECSGA goal is to provide a coordinated and effective voice for East Coast growers in regional and national issues. To a large extent, we have followed the organizational model provided by our sister PCSGA on the Pacific Coast.

The ECSGA is now almost 200 members strong, with representation from all of the Atlantic states. Bob Rheault from Rhode Island is the President, Tom Gallivan from Virginia is the VP, Karen Rivera from New York is the Secretary, and Gef Flimlin from New Jersey the Treasurer. And in early February, Ed Rhodes was hired to become the Executive Director of the ECSGA. The ECSGA just held its second annual meeting in conjunction with the Milford Aquaculture Seminar.

The ECSGA participated in the annual shellfish industry "Walk on the Hill" in February in Washington, D.C. The week started with an issues and strategy session attended by ECSGA, PCSGA and the Gulf Oyster Industry Council and coordinated by the National Fisheries Institute. The remainder of the week was spent discussing key shellfish issues with congressional representatives. ECSGA representatives were also able to attend a public meeting held by FDA on the proposed Codex limits for cadmium in shellfish, and to discuss the coordination of habitat conservation and aquaculture with NOAA.

With the assistance of the Rhode Island Sea Grant program, the ECSGA recently published a leaflet called "Did you know? Shellfish Aquaculture is GOOD for the Environment!". The leaflet is designed for a wide public audience, and emphasizes the ecosystem services shellfish provide, and the sustainable nature of shellfish farming. The leaflet can be downloaded from the ECSGA website, www.ecsga.org. In addition to the website and a listserv discussion link, the ECSGA publishes a quarterly newsletter.

The ECSGA is still very much in its infancy, and is in the midst of a recruitment drive for new members. Voting memberships are open to all east coast shellfish companies and distributors that derive at least part of their income from shellfish culture activities. In addition, a variety of non-voting membership opportunities are available to shellfish industry suppliers, and to researchers, academics and extension folks with an interest in the shellfish industry. State or regional shellfish organizations are also encouraged to affiliate with the ECSGA. Information on membership is available on the website.

Ed Rhodes, ECSGA Director

Oyster Review... continued from page 11.

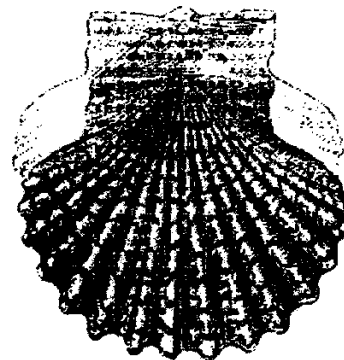
This work is the result of several years effort by the author searching out obscure accounts from almost a hundred years ago to events of the present and organizing it in a readable form. It is a complete in-depth history of NSA that could be written only by a man with Doctor Carriker's insight and knowledge of the subject. It is all put together in a most readable form and should be on the reading list of everyone with an interest in shellfish. The only criticism of *The Taming of the Oyster* comes from Doctor Carriker's modesty; he does not give proper credit to the many ways his influence contributed to NSA's success over the years.

Victor Burrell

Nutrition Review... continued from page 11.

chapters are well written and contain very in depth and complete reference sections, a few of the included papers are nothing more than advertisements for specific probiotics or microbial additives, which detracts from the book as a whole. However, for investigators interested in microbial contributions to aquatic nutrition, this book is very informative and beneficial. Some of the technology reported may be a little heavy for lay people with little or no background on microbial populations or food webs, but this book is still worth the cost to obtain and read. While it provides a great deal of information on microbial food webs and interactions and their potential for use in aquaculture scenarios, it is a fairly short book and thus does not demand an enormous amount of time or effort to finish. It certainly is worthwhile reading not only for those in the field of aquatic nutrition, but also for producers and growers of crustaceans, bivalves and fish.

Steven R. Craig
Department of Large Animal Clinical Sciences
Virginia-Maryland Regional College of Veterinary
Medicine



Farming... continued from page 12.

An important factor in any aquaculture is the control of predators. This is a basic function of culture along with preventing disease, controlling mortality, enhancing growth, and optimizing quality. Spencer provides a wide-ranging discussion on predator control and exclusion methods. While recognizing predation from birds and fish, a great deal of the chapter is spent on the control of crabs since these are obnoxious predators in many parts of the world. He describes exclusion devices used on mollusk farms as the primary means of protection and provides examples of their use. Chemical controls are discussed along with the more usual mechanical methods and he provides reference to statutory powers for these in the UK.

Spencer includes a chapter on site selection for bivalve aquaculture. It is, he notes, "a multi-faceted problem that requires an assessment of a range of information to ensure that a new business venture stands a good chance of success." Too many businesses, both in Maryland and abroad, have found this out too late to keep from failing. The author provides a concise overview of site selection that show the physical, biological, and legal information that must be gathered by the culturist before a site can be judged as viable. As always, the author provides a range of topics covering many aspects of important site criteria.

The last chapter provides information on the *Processing of live bivalves for consumption*. It has been known for decades that shellfish are susceptible to bacterial pollution and can be significant sources of disease in humans. Sanitation programs have developed to ensure that only quality seafood reaches the marketplace. Spencer provides a history of the development of depuration facilities, providing information on their design and operation to ensure that cleansed shellfish reach the consumer. He provides a comparison of the advantages and disadvantages of depuration methods according to a range of criteria. These include capital and operating costs, installation and maintenance costs, dose and contact time, and toxicity to the shellfish themselves. While depuration is frequently looked upon with disdain in the United States, this provides a glimpse into modern processing methods used in European markets to assure consumer health.

"Molluscan shellfish farming" is an excellent addition to any shellfish culturist's reference collection. It should receive widespread distribution and use in future years. It certainly meets the high standards set by Fishing News Books and its parent company, Blackwell Science.

Don Webster
University of Maryland Sea Grant Extension Program

Proclamations... continued from page 6.

*National Shellfisheries Association formally recognizes and thanks **Sandy Shumway**, JSR Editor; **Chris Davis**, NSA Newsletter Editor; **Karolyn Mueller Hansen**, NSA Web-site Administrator; **Scott Siddall**, NSA Web-site Advisor and **Nancy Lewis**, Bookkeeper for all of their outstanding contributions to National Shellfisheries Association through the delivery of information to the membership and the scientific and management community worldwide.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks **Roger Newell, Mark Luckenbach, Dee Kreeger, Dave Bushek** and **Evan Ward** for their diligent work on the ad-hoc committee that resulted in a contract with Longsight to work along with Scott Siddall to update our computer system and make the NSA management system WEB-based.*

*Whereas, the National Shellfisheries Association, Inc. (NSA) is a Not-for Profit Corporation, and **Whereas**, members serve as officers and committee members on a voluntary basis, **Be It Resolved** that on 4 March 2004, the National Shellfisheries Association formally recognizes and thanks **Susan Kennell, Joyce Coulter** and **Susan Parente** of **Sheridan Press** for 19 years of service in printing the Journal of Shellfish Research and for sharing with NSA the financial benefits of implementing new printing technologies by reducing our costs appreciably.*



Gef Flimlin knows no bounds when it comes to raising money for the Student Endowment Fund. When challenged at the President's Reception by members of the "ad hoc after-hours SEF fundraising committee" to jump in the pool for 100 bucks, Gef replied "Sure, but it'll take 500 bucks!" A scant 15 minutes later, the funds were raised from the party goes and in he went. See page 9 for another photo of the proud fundraisers.

Upcoming Meetings

5th International Conference on Molluscan Shellfish Safety: June 14-18, 2004, NUIG, Galway, Ireland. For more information, visit <http://www.icmss04.com>.

5th International Conference on Recirculation Aquaculture: July 22-25, 2004, Hotel Roanoke and Conference Center, Roanoke, VA. For more information, email: aqua@vt.edu, phone (540) 231-6805 or visit <http://www.contend.vt.edu/aquaculture/r-aqua/index.html>.

Second National Conference on Coastal and Estuarine Habitat Restoration: September 12-15, 2004, Washington State Convention & Trade Center, Seattle, Washington. For more information, please contact Nicole Maylett, Conference Coordinator by phone at 703-524-0248 or email: nmaylett@estuaries.org or visit <http://www.estuaries.org>.

19th International Congress of Zoology: August 23-27, 2004, Beijing, China. There will be a session on Molluscan Systematics, Evolution and Population Genetics. For more information, contact Dr. Ximing Guo at xguo@hsrl.rutgers.edu or visit <http://www.icz.ioz.ac.cn>.

2nd National Conference on Coastal and Estuarine Habitat Restoration: September 12-15, Washington State Conference and Trade Center and the Grand Hyatt Hotel, Seattle, WA. Sponsored by Restore America's Estuaries. For more information, contact Steve Emmett-Mattox at phone (703) 524-0248, email: sem@estuaries.org or visit <http://www.estuaries.org/2ndnationalconference.php>.

Littoral 2004: September 20-22, 2004, Aberdeen Exhibition and Conference Center, Aberdeen, Scotland, UK. This year's theme will be "Delivering Sustainable Coasts: Connecting Science and Policy." For more information on the conference program and venue, or to register and submit abstracts, contact the conference office at phone +44 (0) 1223 333438, email: enquires@littoral2004.org or visit <http://www.littoral2004.org>.

Australian Aquaculture - Profiting from Sustainability: September 26-29, 2004, Sidney Convention Center, Sidney, Australia. For more information, contact the Conference Manager, 2423 Fallbrook Place, Escondido, CA 92027 or phone (760) 432-4270 or visit <http://www.australian-aquacultureportal.com>.

Annual Meeting of the NSA Pacific Coast Section: October 12-14, 2004, Sheraton Hotel, Tacoma, WA. For details about this meeting, contact Rich Childers (contact information on back page).

Aquaculture Europe '04: October 20-23, 2004, Barcelona, Spain. This year's theme is Biotechnologies for Quality. For

more information, visit: <http://www.easonline.org/agenda/en/AquaEuro2004/default.asp>.

7th International Conference on Shellfish Restoration: November 17-20, 2004, DoubleTree Suites, Charleston, SC. Those interested in participating should request more information by contacting Elaine Knight: e-mail: Elaine.Knight@scseagrant.org. If you would like to organize a panel session, contact Rick DeVoe: e-mail: Rick.Devoe@scseagrant.org. You may also find continuously updated information on ICSR 2004 at www.scseagrant.org.

4th Northeast Aquaculture Conference & Exposition: December 3-4, 2004, Center of New Hampshire Holiday Inn, Manchester, New Hampshire. For more information, visit <http://www.northeastaquaculture.com> or contact JJ Newman-Rode, NACE 2004 Conference Coordinator, c/o UNH Cooperative Extension, Durham, NH 03824-3515. Phone (603) 749-1565 or email to jj.newman@unh.edu.

11th International Conference on Harmful Algae: November 15-19, 2004, Cape Town, South Africa. For more information on the conference program and venue, or to register and submit abstracts, contact the conference office at phone +27 21 683 5522, email: aecon.e@mweb.co.za or visit <http://www.botany.uwc.ac.za/pssa>.

Aquaculture America 2005: January 17-20, 2005, Marriott New Orleans, New Orleans, Louisiana. For more information, contact the Conference Manager, 2423 Fallbrook Place, Escondido, CA 92027 or phone (760) 432-4270 or visit <http://www.was.org>. Abstracts due August 3, 2004.

National Shellfisheries Association 27th Annual Meeting: April 10-14, 2005, Doubletree Hotel, Philadelphia, PA. Contact Dee Kreeger or Gary Wikfors for more information (see back page for contact information).

15th International Pectinid Workshop: April 20-26, 2005, Mooloolaba, Queensland, Australia. For more information, contact Mike Dredge by email at flatcalm@ozemail.com.au or Peter Duncan by email at pduncan@usc.edu.au.

World Aquaculture 2005: May 9-13, 2005, Bali International Convention Center, Nusa Dua, Bali, Indonesia. For more information, contact the Conference Manager, 2423 Fallbrook Place, Escondido, CA 92027 or phone (760) 432-4270 or visit <http://www.was.org>. Abstracts due November 1, 2004.

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

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