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# National Shellfisheries Association Quarterly Newsletter

2017 (2)

## President's Message



I am very honored to have the opportunity to serve as President of the NSA. I have been attending this meeting for the past 20 years and continue to be impressed with the caliber of research of our membership. Filling the shoes of now Past-President Carolyn Hanson will

not be easy and I thank her for her leadership in furthering the goals of the Association and assisting me in the transition. I look forward to working with Carolyn in her capacity as Past-President. Outgoing Past-President Chris Davis has been an essential part of NSA not only through his leadership, but in keeping MemberClicks operational. Thank you, Chris, for all you have done for NSA, and I hope you will remain engaged as we move forward.

It was a pleasure seeing everybody in Knoxville at our 109<sup>th</sup> Annual Meeting. The meeting was a success due to the hard work of many folks both in front of and behind the scenes. A special thanks to Sandy Shumway for her tireless effort as Conference Manager. The organization of the Annual Meetings is, as I am sure you are all aware, no easy task and preparations for the meeting begin before the last one ends. As the old saying goes, 'It takes a village'. Special thanks to Secretariat Linda Kallansrude along with Noreen Blaschik who work tirelessly behind the scenes to ensure that the needs of NSA are met. Sandy did a yeoman's job of bringing 4 thought-provoking plenary speakers, wrangling all of the special sessions, and ensuring that the meeting ran as smoothly as ever. Special thanks to all of the presenters for over 200 talks and posters. Student participation was strong, with many attending the meeting for the first time, and we look forward to their continued participation. Thanks also to the Recruits for staffing the sales table and also ensuring that the sessions ran smoothly. A special thanks to outgoing Recruits Co-Chairs Hillary Lane Glandon and Lillian Kuehl for making the NSA a welcoming place for students to present their research and making student events at the annual meetings 'not to be missed'. Hillary will be ensuring a smooth transition as new Recruits Co-Chairs Erin Roberts and Laura Spencer take the reigns. Thanks also to Eric Heupel for the on-site IT support. The SEF auction is a long-standing tradition (25 years) that enables us to offer student travel awards annually. This year's auction hosted by the one and only Sandy 'Davy Crockett' Shumway raised \$3,000 to support student involvement with the NSA. Thanks to all who donated items and money. If not for the service of the membership we would

truly have a hard time running a successful and productive meeting. It appears that we have a new tradition in the very popular Scallop Gallop, initiated and organized by Lewis Deaton. Get your team ready to run the streets of Seattle next year. Congratulations to the newly-elected members of the Executive Committee: John Scarpa (President-Elect), Peter Kingsley-Smith (Vice President), Nature McGinn (Treasurer), and Kay McGraw (Member-at-Large 2017-2020), and thanks to all of the Executive Committee members for their time devoted to the NSA. Many standing committees serve the Association: Audit-Budget-Finance Committee (John Kraeuter, Chair), Carolyn Hanson chairs the Past-Presidents', Elections, and Awards Committees. Susan Ford and John Kraeuter Co-Chair the Publications Committee, and Peter Kingsley-Smith, Leroy Creswell, and Melissa Southworth are Co-Chairs of the Endowment/Student Awards Committee. A special thank you goes to Lisa Milke and Nature McGinn who are stepping down from the Endowment/Student Awards Committee after many years of service ensuring that student judging is done with a fair system. They will be missed, but they leave the committee in very capable hands. The re-activated Membership Committee Co-Chairs are Tessa Getchis, Shirley Baker, Hillary Lane Glandon, and Sandy Shumway. Membership is a vital component of any association and I am very pleased to have these folks leading the charge to ensure that our vibrant and diverse membership continues to thrive. I am also pleased to announce that Noreen Blaschik is now Associate Editor of the *QNL* assisting Editor Leroy Creswell.

The 2017-2018 year will continue to be a busy time for NSA. Plans are well in hand for the 110<sup>th</sup> NSA annual meeting to be held March 18-22, 2018 in Seattle, WA. We are in the final stages of updating the Strategic Plan thanks to the efforts of the Strategic Planning Committee led by Lou D'Abramo. We hope to have the final draft for your viewing pleasure later this summer. The Membership List is also being updated and you will shortly receive an email asking you to check your information. Please take the time to do so. We are also in the beginning stages of refreshing the look/layout of the web portal check in at [www.shellfish.org](http://www.shellfish.org) often.

Again, I want to thank you all for allowing me the opportunity to serve as NSA President. This organization means the world to me and it truly is an honor to be its President. I hope NSA means as much to you all as it does to me. And with that, have a great summer collecting data and tending your operations. Do not hesitate to reach out to me or anyone on the EXCOM with ideas, questions, or your willingness to volunteer.

**Steven Allen, President**

*Printed on recycled paper*

## Recruits' Corner

### Hello, Recruits!



We hope this Newsletter finds you all well as the school year draws to a close and brings the start of the summer field and research season. We are wrapping things up after the meeting in Knoxville. It was great to see all of you and catch up on your research. We hope you all had a good time as well! The Knoxville meeting was a great venue for maintaining our NSA network in an intimate setting and gave us

an opportunity to explore a region often overlooked for NSA meetings.

The Recruits were lucky to have a diverse group of early career scientists on the student panel titled "Next steps after graduate school: perspectives from early career scientists". We heard advice about employment and post-doctoral fellowships from Dr. Matthew Gray, a post-doc at the University of Maine Darling Marine Lab with a tenure track position at the University of Maryland Center for Environmental Science, settled Recruit, Dr. Jake Goodwin, an AAAS Fellow, settled Recruit, Dr. Maria Rosa, an NSF post-doctoral fellow at SUNY Stonybrook, and the Recruits' own Hillary Glandon, a PhD student at the University of Maryland Center for Environmental Science. Each panelist provided advice about applications and interviewing for jobs and fellowships after school.

Our thanks to all the student volunteers. As always, your hard work ensured this meeting ran smoothly. Students helped deliver talks, run A/V in the rooms, and man the sales booth. A special shout out to Eric Heupel (the man in the cowboy hat!) who worked tirelessly with the student volunteers to make the meeting a success. All proceeds from the sales booth and auction go to the Student Endowment Fund (SEF), which funds student activities, subsidizing the costs for students to attend meetings, as well as fund the student research and presentation awards. Congratulations to all winners of this year's research and travel awards. Remember, you can apply for these awards even if you have received one in the past. All information regarding the requirements and how to apply for each of the research awards are available online at [www.shellfish.org](http://www.shellfish.org).

Finally, this year marks the last year for Hillary Glandon and Lillian Kuehl as Recruits Co-chairs. It has been a blast, and we have had a great time getting to know the Recruits and making connections with peers that we are sure to maintain throughout our careers. It has been a privilege and we look forward to keeping in touch as we transition into "settled" recruits. Hillary will stay on and help the new co-chairs get acquainted with the position to ensure a smooth transition before our next meeting in Seattle, Washington from March 18-21, 2018. Plans are already underway for student activities and sessions for the meeting. If you have anything that you would like to see at the meeting, let us know! As always, we are here if you have any questions or concerns.



**See you in Seattle!**  
**Hillary & Lillian**

## WESTWARD, HO!

The 110<sup>th</sup> Annual Meeting will be held in Seattle, Washington, March 18-22, 2018. We will be returning to the recently renovated Renaissance Hotel and the program is already taking shape. Sessions are planned on geoducks, probiotics, green crabs, vibrio, algal culture, habitat, scallops, disease, sea grass/bivalve interactions,



genomics, ribbed mussels, olympic oysters, and more. Student activities promise to be fun and enlightening and the Scallop Gallop will test your stamina. Returning this year will be Bruce Koike with his spectacular fish and shellfish prints. Bruce has also offered to run a workshop on how to make your own prints and places are already filling up. This is not only fun, it's a great teaching tool and outreach activity. Thanks to those who have already committed to organizing sessions (Marta Gomez-Chiari, Paul Gribben, Sylvia Yamada, Kristin-DeRosia Banick, John Jacobs, Gary Wikfors, Steve Morton, Ken Riley, Joth Davis, Rosanna Smolowitz, Dale Leavitt, Kay McGraw, Sarah Kingston, Maureen Krause, Danielle Kreeger, and Dave Bushek). There's plenty of room for more. If you are interested in organizing a special session, or even if you just have an idea for a session that you think would interest the participants, get in touch with Sandy Shumway. Watch the web page for updates.

Seattle is a fantastic location for our annual meeting with plenty to do and see and the seafood - especially shellfish - is some of the best in the world. See you there!

*Sandy Shumway*

## WANT FREE REGISTRATION TO ATTEND AQ 2019?

The continued success of the NSA depends upon a healthy membership. The math is simple - if each member recruits just one new member, our membership doubles! In an effort to stimulate growth, the Membership Campaign continues and the first three people to recruit five new members will receive a free registration for Aquaculture 2019 in New Orleans. The first winner is Maria Rosa who will receive a free registration to attend the upcoming meeting in Seattle. Go, Maria! It's easy. Just convince your friends and colleagues to join and when they do, be sure to let Linda Kallansrude know that you recruited that person. Only new memberships are eligible.





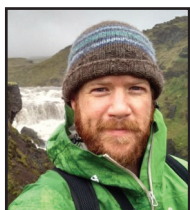
## 2017 NSA Student Research Awards

The student research awards were announced during the Annual Business Meeting at 109<sup>th</sup> NSA Annual meeting in Knoxville, TN. These competitive grants provide \$1250 in support funding earmarked for student research projects as well as for the best student paper published in the *JSR*.



The **Melbourne R. Carriker Award** supports a student's research project in any topic of shellfisheries. The 2017 Carriker Award was presented to Laura Spencer, University of Washington Aquatic and Fishery Sciences, for her proposal entitled, "Transgenerational inheritance of epigenetic adaptability to dual climate stressors in oysters". Laura's proposal

examines the phenotypic plasticity via epigenetic modifications of three genetically distinct populations of the only native oyster of the Northeast Pacific Ocean, the Olympia oyster, in response to multiple environmental stressors and across multiple generations.



The **Michael Castagna Award** for student research is an award devoted to the area of applied shellfisheries. Winning this year was Evan Durland, Oregon State University, for his proposal entitled: "The genetic contribution to larval fitness in the Pacific oyster *Crassostrea gigas* and long term genomic response to domestication."

This work will compare the relative performance of selectively bred and wild oyster genotypes in ambient and acidified seawater and, specifically, the role that genetics plays in determining growth and survival in these conditions.



Judging of the **Sandra E. Shumway Award** for the Best Student Paper published in the *JSR* has specific selection and evaluation criteria: (1) The lead author must have been a student when the work was completed, (2) the paper must present the student's work, not that of a co-author, (3) it will be evaluated on the quality of science and

writing, and (4) the importance of the work to the field of shellfish research. Forty-two manuscripts were in competition for the prestigious award. A panel of judges deliberated, and the award was presented to Bianca Arney, University of British Columbia, for her manuscript:

Arney, B., Wenshan, L., Forster, I. McKinley, R.C., and Pearce, C. 2015. Temperature and food-ration optimization in the hatchery culture of juveniles of the Pacific geoduck *Panopea generosa*. *Journal of Shellfish Research*, 34(1): 39-53.

I wish to thank all the students for submitting their proposals as well as the reviewers for taking the time to evaluate each these proposals and student papers so thoughtfully.

**Application deadline for 2017 is November 1<sup>st</sup>.**

Start planning now! Details are available at [www.shellfish.org](http://www.shellfish.org).

**Chris Davis**  
Past-President

## FUCOBI Foundation Recognizes NSA Students

Congratulations to winners of the One Health Epigenomics and Microbiomes Award from the FUCOBI Foundation of Ecuador ([www.fucobi.org](http://www.fucobi.org)). The FUCOBI Foundation is an international collaboration of researchers and NGO focused on "One Health" - a program aimed at conserving healthy ecosystems to maintain biodiversity and healthy animals to



protect human health. The first award was presented at the 108<sup>th</sup> Annual Conference (Aquaculture 2016) in Las Vegas to Melissa Pierce and the second award was presented at the recent 109<sup>th</sup> meeting in Knoxville to Amanda Zahorik for her presentation entitled: "The oyster microbiome: interrelationships among host genotype, microbiome composition, and disease resistance in



*Crassostrea virginica*". This award carries a cash prize and will be continued in 2018. Students are encouraged to submit their work on any aspect of microbiome and antibiotic resistance work on shellfish for consideration, special consideration will be given to papers that have a direct link to human health. Details will be made available on the NSA web page.

**Congratulations to Melissa and Amanda!**

## David H. Wallace and Honored Life Member Awards



Carter Newell, Aad Smaal, and Chris Davis

field of shellfisheries science. Dr. Powell was presented the **David H. Wallace Award** for his activities in shellfisheries, aquaculture and conservation that have promoted understanding, knowledge, and cooperation among industry members, the academic community, and government.

The National Shellfisheries Association acknowledged the career contributions of Dr. Aad Smaal, Wageningen University - the Netherlands, and Dr. Eric N. Powell, University of Southern Mississippi, at the 109<sup>th</sup> Annual Meeting in Knoxville, Tennessee. Dr. Smaal was presented the **Honored Life Member Award** for his contributions to the



Roger Mann, Eric Powell, and Chris Davis

Full biographies will be published in the next *Quarterly Newsletter* and a future issue of the *Journal of Shellfish Research*.

## 2017 Resolutions

Each year, the National Shellfisheries Association recognizes individuals for special contributions to the society in the form of Resolutions. Each begins with the same introduction: 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 the 29<sup>th</sup> of March, 2017, the National Shellfisheries Association formally recognizes and thanks:

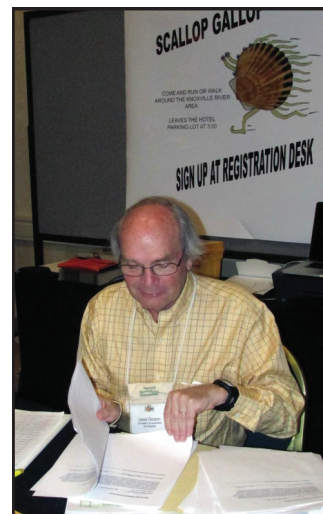
This year, the following Resolutions were presented:

- Outgoing officers and committee members; Joth Davis and Julie Davis.
- Lisa Milke and Nature McGinn for superlative service on the Endowment/Student Awards Committee.
- Susan Ford for her foresight and efforts in the establishment of electronic subscription to the *Journal of Shellfish Research* through BioOne. Fees from these subscriptions now represent a significant revenue stream for the NSA.
- Kerri Benzinger, Marriott Sales, Mort Eladawy, Banquet Captain, Said Mohamed, Chef, Trevere "Trey" Scott-Henry, information technologist, Sherri Conrad, Banquet Manager, and the extraordinary staff of the Knoxville Marriott Hotel for their outstanding efforts on behalf of the 2017 Annual Meeting of the National Shellfisheries Association. Their professionalism, attention to detail, and friendliness were instrumental in making the meeting a great success. We thank them all for their outstanding efforts!
- The Sheridan Press for 30 years of outstanding service and collaboration publishing the *Journal of Shellfish Research*. We especially recognize Joyce Coulter, Susan Parente, Kim Salois, and Lisa Small for their efforts on behalf of the *Journal* and the National Shellfisheries Association, which are gratefully acknowledged and appreciated.
- Sandra Shumway for 30 years of exemplary and tireless service as editor of the *Journal of Shellfish Research*. JSR is now an internationally recognized journal due largely to Sandy's efforts. Thanks to Sandy, and we all hope for another 30 years.

***Save the Date!***  
***PCSGA-PCS***  
***2017 Annual Meeting***  
***September 17-21, 2017***  
***Welches, Oregon***

## First Annual Scallop Gallop A Huge Success!!

On the afternoon of Wednesday, March 29, 2017, a small, but enthusiastic, group of hardy athletes participated in the first ever Scallop Gallop at the 109<sup>th</sup> annual meeting of the NSA. The  $\pm$  5K course started outside the Knoxville Marriott, went along the north bank of the Tennessee River, on to the 1980 World's Fair Park, and back to the hotel by the same route. Participants passed the Sunsphere and an obelisk commemorating the four freedoms speech of Franklin Roosevelt. Unfortunately, the event was not without some controversy as Drs. S. Shumway and K. Reece were disqualified for shorting the course. They immediately lodged a formal protest, which was summarily dismissed after thorough review by an unbiased panel consisting of the race organizer. At any rate, it was a gorgeous day and everyone who participated had a fine time and metabolized part of the Business Lunch. The race organizer was surprised by the number of people expressing interest in the event and despite being crushed by all of the young kids in the race, he hopes to make the Scallop Gallop an annual part of the NSA meeting. So get in shape, do some hill training, bring your running or walking gear to Seattle, and if it rains we will pretend that we are in a Nike commercial.



Thirty-one enthusiastic runners participated and completed the first annual 5K Scallop Gallop in Knoxville ... including six "master runners" (our over-40 crowd).

**Lewis Deaton**





# 21<sup>st</sup> International Pectinid Workshop



Portland, Maine was the gathering place for the 21<sup>st</sup> International Pectinid Workshop held April 19-25, 2017, hosted by Kevin Stokesbury, Jay Parsons, and Sandra Shumway. Participants represented 16 countries including the USA, Canada, the United Kingdom, Isle of Man, Chile, Iceland, Spain, Australia, Ireland, New Zealand, Norway, Brazil, China, France, Japan, Mexico, and South Africa. The meeting included the usual collection of technical papers and posters and nine keynote lectures. One highlight of the workshop was the Young Captains' Technology Forum, a full day when industry members, scientists, managers, and regulators all gathered to exchange views on what future research efforts are needed to move the scallop industry forward and maintain sustainable fisheries for the future. Richard Bailey kicked off the first day with a fascinating lecture on fossil scallops, and Eric Foucher started the afternoon with a summary of the COMANCHE project in the English Channel. Peter Auster discussed marine protected areas as management tools, and Bryce

Stewart presented on the effects of scallop dredging on marine ecosystems. Brian Rothschild led the Industry Day with a thought-provoking lecture on the 'birth and death of ideas in marine science' and their impacts on fisheries, and Dan Speiser introduced everyone to the world of vision in scallops. The current status of genetics in scallop biology and aquaculture was reviewed by Elisabeth von Brand, and Helga Guderley provided a fascinating lecture on scallop muscle physiology. There were plenty of occasions for interactions among the participants during open discussion groups, social hours, a bus trip to Boston and the New England Aquarium, and a soggy afternoon eating barbeque and watching the Portland Sea Dogs play baseball. A taste test of various species of scallops proved to be very tasty, but inconclusive. Bruce Koike had an outstanding display of his *Gyotaku* art and entertained the audience with a talk on the background and 'how-to' of the process. The meeting ended with a lobster bake and music by Old Grey Goose. The full program and abstracts are still available at [www.ipw2017.com](http://www.ipw2017.com).



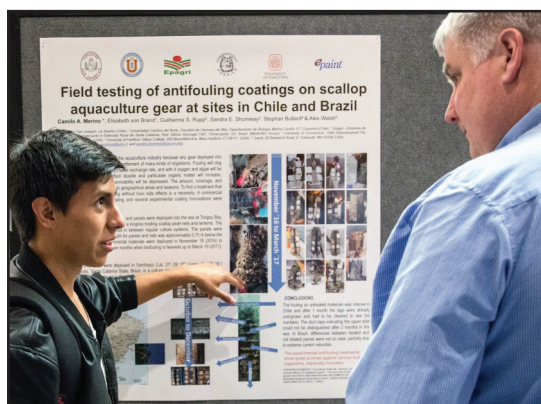
John Himmelman (left), Richard Bailey, and the world's largest (fossil) scallop.

The Workshop was very generously sponsored by Clearwater, the Department of Fisheries and Oceans, Canada, The New England Fisheries Management Council, The Fisheries Survival Fund, Compass Fishing Corp, Nordic, Inc., Coonamessett Farm Foundation, Farm Credit East, Foley, O'Hara Corporation, Little Pond Nature Prints, Maine Sea Grant, Seatrade, University of Massachusetts Dartmouth, Maine Aquaculture Innovation Center, Atlantic Shellfish, Courageous Fishing Corp, NOAA Fisheries, and the Virginia Institute of Marine Science. Very special thanks to Emily Keiley, Eric Heupel, Noreen Blaschik, Travis Lowery, Nick Calabrese, Naiff (David) Bethoney, and Mike Marino for their collective talents and efforts which made the meeting possible.

The International Pectinid Workshops have been on-going since 1976 and the next IPW will be hosted by Luz Pérez-Parellé and José Luís Sánchez and take place in April of 2019 in Santiago de Compostela, Spain – an epicenter of scallops in history, aquaculture, art, architecture, and cuisine.

**Mark your calendars and see you in Santiago!**

**Sandy Shumway**



Camilo Merino, winner of the Best Student Poster Award, discussing results with co-author Alex Walsh.



From left: Sophie Grefsrud, Luz Pérez-Parellé, Sandy Shumway, Andrew Brand, Norm Blake, Michael Dredge, José Luís Sánchez, Guofan Zhang, Guilherme Rupp, Elisabeth von Brand, Peter Duncan, Kevin Stokesbury, and Julie McGuire.



# NSA 109<sup>th</sup> ANNUAL MEETING WRAP-UP

## KNOXVILLE in the rearview mirror...

Just over 200 people gathered at the Marriott Knoxville for the 109<sup>th</sup> Annual Meeting of the NSA. As always, the EXCOM spent all day Sunday going over the business of running the NSA, and the official festivities kicked off with the President's Reception on Sunday evening. It was an exquisite presentation of shellfish and other treats prepared by the hotel chef and his outstanding team. A very special thanks to the folks who provided seafood for the occasion: Dan Martino - Cottage City Oysters; Stacie Salce - G&B Shellfish; Ian Jefferds - Penn Cove Shellfish; Perry Raso - Matunuck Oyster Bar; Bill Dewey - Taylor Shellfish, Taylor Plimpton and Chris Sherman - Island Creek Oysters; Alex Hay - Macs Seafood; Chris Davis - Pemaquid Oyster.

The overall program included 15 special sessions and over 230 oral and poster presentations. Each day began with an outstanding plenary lecture. Dan Speiser (University of South Carolina) started the day Monday by dazzling the audience with a presentation on the structure, function, and evolution of invertebrate eyes and, of course, beautiful pictures of the eyes of various species of scallops. Eileen Hofmann (Old Dominion University) presented a tour d'force on modelling marine bivalve populations, and made it all seem so easy. Kevin Stokesbury (University of Massachusetts, Dartmouth) explained the world of shellfish management and the importance of scientific research in that process, and Aad Smaal, the newest Honored Life Member of the NSA, presented an interesting overview of the multiple uses of molluscs ranging from aquaculture and fisheries to community resources and ecosystem services.

The 7-a.m. Student Breakfast was overflowing with some 50 students who were a strong component of the conference. Not only did they present some of the best talks and posters, they were indispensable as helpers at the registration and sales tables, and as enthusiastic participants in what promises to be the new NSA tradition - the Scallop Gallop. Introduced and organized by Lewis Deaton, there were almost 60 participants, some with cleverly designed team shirts and others with outrageous socks. This event will be repeated in Seattle next year, so start training and planning now!

The auction (with 'Davy Crockett') and book raffles brought in close to \$3000 for the SEF. A very big thank you to John Wiley & Sons and Elsevier for book donations. The Business Luncheon was packed, and the conference closed on Thursday afternoon with a well-attended closing happy hour. Another successful meeting in the record books!

Plans are already well underway for Seattle in 2018. If you have an interest in organizing a special session, or just have an idea for a session, send them along. Keep an eye on the web page for updates.

*So now it's on to Seattle – see you there!*  
**Sandy Shumway**  
*Conference Manager*





## *In defense of scholarly publications - Looking back before lurching forward*



What are we losing? Over the past few years I have lost several good friends and outstanding scientists in the global arena - and along with them, the world has lost not only their continued input of wisdom and vision, but their accumulated libraries are being thrown into dumpsters with nary a twinge of conscience! Why?

Because no one seems to recognize the importance and significance of

historic documents, hard-to-obtain publications, or perhaps most salient - the need to know what has been done previously and by whom.

This isn't a new problem, but it is a rapidly escalating one. Over 30 years ago as I took up a new position I noted box after box of books and reprints being tossed in the dumpster outside my office window. When I checked I realized that they were from two individuals who had amassed very impressive libraries during their accumulated 70+ years of research. When I inquired they told me that they were retiring and no longer needed the material - and not a thought that the material might be valuable to the library or other individuals or future researchers. I was appalled, but also thrilled - dumpster diving it was - and I just about tripled my own library resources. I not only used that material for my own efforts over the years, but my library quickly became known to others as a useful and accessible source of references. Over the ensuing decades, I have been able to provide colleagues in many arenas with those hard-to-locate papers, books, proceedings, and other materials.

Scientific research should build on prior knowledge, yet more and more of the published literature is nothing but a rehash of old studies, or worse, complete repeats of prior studies, and all because the authors either couldn't be bothered to look at the historical literature or don't know how to carry out a proper literature survey. Only two years ago I received a paper for consideration and realized that it was almost a carbon copy of a prior study done in 1958. Did I think the authors had plagiarized the effort? No, I assumed (correctly as it turned out) that they simply had not done their due diligence. The paper was rejected, but sadly that represented almost 2 years of a student's efforts, the funds to pay them, and it resulted in an unpublishable effort that could so easily have been avoided had they taken the time to do some reading. Their time could then have been spent moving that prior study forward. Not only is this practice an affront to those who have gone before, it is a waste of time, effort, and precious research funds - and it is becoming all too commonplace.

As an editor for the past 30+ years, I have seen far too often the results of poor literature research, knowledge, and understanding. Authors now routinely site what I refer to as 'references of convenience', i.e. any old paper that they happen to have on hand that cited one or two

other irrelevant or even incompetent papers rather than the key references - or even pertinent references - to the statement made. Why? Because their computer or telephone search didn't provide them with the most important works. Because they don't know how to differentiate good studies from others. Or because they couldn't be bothered going to the library to actually look at the documents and browse other materials or investigate older reference lists to locate the original works. Or because they never actually obtained and read the papers in question, just added them to the reference list. It may be surprising to some that papers from the early days (meaning a century or more ago, not 10 years!) contain highly relevant observations and insight, not to mention the issue of giving credit where it is due.

I have raised my concerns with librarians and asked for guidance as to where one might deposit long runs of scientific journals, large collections of invaluable offprints, and books. It seems there is no accessible graveyard for these materials and much of the material is put in the trash. Most recently I was told by one librarian that they "liken it to the Nazi book burning in the 1930s", and to "reinventing the wheel over and over again, as all the old research gets lost".

What should be done? What can be done? Students should be trained to carry out a comprehensive literature review and required to do so before they embark on any research effort. That means libraries and reference lists and resources beyond their iPad and telephone screens. Scientists and advisors should do the same and pass along that guidance and influence to their students. Granting agencies should engage more reviewers who know the literature and can identify duplication of effort before it is funded for the second and third time. Overall, there needs to be a concerted effort to instill in students and researchers the appreciation that scientific literature is an important historical entity and needs to be used and preserved.

Scientific research and scholarship are accumulated over time and the new era of 'rush to publication' to enhance personal statistics and feed publishers' greed has severely hampered, if not squashed, the basic quest for knowledge and understanding and scholarship. The value of prior knowledge needs to be preserved and that can only happen if scientists acknowledge that value and pass that sentiment on to ensuing generations.

As I sit here perusing my hard-won collection of over 100,000 offprints and 150 linear feet of books, I can only hope that it isn't dumpster bound.

***Sandra E. Shumway***  
***Editor, JSR***



## Zeeland Blue Oysters by Artist Dieuwke Parlevliet

The Japanese oysters growing in the estuary of the Zeeuwse Oosterschelde (South-West Netherlands) have such wonderful forms that artist Dieuwke Parlevliet likes to paint them. This she does with special blue colors reminiscent of the Delft Blue of which the Netherlands became so famous and the Chinese blue porcelain that was the basis of it.

*'The creuses with their whimsical shapes and their beautiful spotted white insides are a pleasure for my eye. My tongue prefers the flat oysters ... with a drop of lemon juice and some black pepper.'*

To Parlevliet's surprise, the Zeeland Blue Oysters have been a great success. People buy them as souvenirs, there are a number of renowned restaurants serving oyster dishes on Zeeland Blue oysters, and companies order Zeeland Blue Oysters as promotional gifts.



*'As an artist you are always busy to create something that is intrinsically good; whether it looks good, whether the concept is right, whether something is well written. Demand for merchantability only follows later. That's the wonderful as well as the tragic of the artist's fate.'*



The development is ongoing, and Parlevliet has invented various types of oysters: Zeeland Blue, the ZB Gold (with gold decoration), the Blanche (a pearl white decorated oyster) and the Nanking Cargo oysters, which have

similar patterns as the Nanking Cargo porcelain: the boatman pattern, the scholar on the bridge, the lattice fence, and others.

"It's always new, surprising and interesting to do", says the artist. She is active in many ways. Parlevliet has a MSc in theology from the University of Amsterdam, and following a writing school in Antwerp, debuted with poems *Perdonia Dael*, wrote a book about the smell of the sea – a story named *The sea -perfume of uncle François* and several other arts-projects. Recently there was an exhibition with Chinese antique porcelain together with her Zeeland Blue oysters. It came with a story by Parlevliet *'De verre reis van het Veeze vissertje'*. Parlevliet's hand-painted oysters are sold under the name *Zeeuws Blauw* ([www.zeeuwsblauw.nl](http://www.zeeuwsblauw.nl)) and are packed in a cardboard box with a ribbon and leaflet. The more expensive pieces are packed in a blue velvet stew in an oyster basket.

*This is part of an occasional series of articles on art in the shellfish world.*

## IN MEMORIAM

George Carey Matthiessen

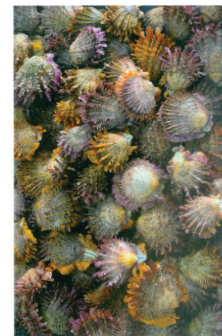
August 15, 1928 - May 15, 2017

Carey was a pioneer in oyster farming and a recipient of the Wallace Award. A full obituary will appear in a future issue.

## JSR Wins Award

ASSOCIATION TRENDS  
ALL MEDIA CONTEST

JOURNAL OF SHELLFISH RESEARCH  
VOLUME 35 NUMBER 2 AUGUST 2016



Gold Winner

Scholarly/Technical/Scientific Journal  
Journal of Shellfish Research  
National Shellfisheries Association

The *Journal of Shellfish Research* has been honored with a gold level award in Scholarly/Technical/Scientific Journal in *Association TRENDS'* 2016 All-Media Contest. It was one of nearly 400 entries in the association publications contest, and top of three awardees in the Scholarly/Technical/Scientific Journal category.



# The Clam that Sank a Thousand Ships

*These infamous clams are invading new areas, buoyed by climate change and the 2011 tsunami in Japan*  
by Sarah Gilman

*The vessel, though her masts be firm, Beneath her copper bears a worm* — Henry David Thoreau, from “Though All the Fates”

Early on a calm June morning, Nancy Treneman picks her way along the wrack line of a stretch of southwestern Oregon coast. Every so often, she pauses to scrutinize a plastic bottle or lonely flip-flop, or retrieves a hatchet from her pack and skims shavings from a piece of driftwood sticking out of the bony assemblage of logs where the beach meets a steep hillside. “The debris tells a story,” Treneman explains, “It tells you what’s going on out there.” Over the past three years, Treneman has been looking for passages from a very particular story that may have snagged here among the rocks and sea stacks at Crook Point—a promontory inside Oregon Islands National Wildlife Refuge that happens to be a perfect catchment for Pacific Ocean castoffs.

When the magnitude 9.0 earthquake struck off the coast of Japan in 2011, it measurably shifted the country’s main island eastward, tweaked the tilt of Earth’s axis, and killed nearly 20,000 people with the towering wave that followed. The tragedy also sucked an enormous amount of buoyant stuff out to sea—fishing boats, docks, plastic flotsam—offering scientists an unprecedented look at how species raft to new environments on anthropogenic debris, a mechanism that is increasingly influencing ecosystems. With the help of volunteers, government officials, and funders, Jim Carlton, Treneman, and more than 50 other taxonomists have identified about 300 different species that survived a journey of thousands of kilometers across the ocean to Hawai‘i, California, Oregon, Washington, British Columbia, and Alaska. Among them is the little-known mollusc closest to Treneman’s heart: the shipworm, a tunneling bivalve with a voracious appetite for wood. Though we didn’t find any on this day, about 22 percent of the tsunami debris that researchers have assembled from the North American west coast is wooden building material. And as Treneman has painstakingly examined 125 collected pieces, she’s found them riddled with shipworms from Japan’s coastal waters and from the open ocean.



Shipworms may resemble worms, but they are actually a type of mollusc. Photo by Nature Photographers Ltd/Alamy Photo Stock

The species we’re following through the wood now is big, with a tunnel as thick as my index finger—“the kind of shipworm,” Carlton tells me later, “that you don’t want to meet in a dark alley at night.” It also appears to be a species that tolerates colder water, which means it could find a home on this side of the Pacific. “We do still have a lot of wood in the water. So it wouldn’t be good if we gained another wood-boring organism,” he says. Even if the Japanese species don’t establish, though, more warm-water tropical and subtropical species are likely to move inexorably toward the poles as ocean temperatures rise. With shipworms, “the main concern you have to have about global warming is that it’s going to increase their distribution and range, increase the animals’ activity and extend the window of time in which they can reproduce,” since they tend to breed and establish on wood during warmer seasons, says Reuben Shipway, another collaborator on Carlton and Treneman’s tsunami research who works with Distel at Northeastern University.



Shipworms move through their boreholes in a mangrove trunk at the mouth of the Amazon River in Brazil. Photo by Reuters/Alamy Stock Photo

There is some evidence that this is beginning to occur. Off the Swedish coast, scientists have found evidence that *Teredo navalis* larvae are actively invading submerged wooden panels 26 days later into the fall on average than they were in the 1970s, a trend that correlates strongly with higher sea-surface temperatures. Also, the *Uluburun III*, a replica of a 3,300-year-old shipwreck off the coast of Turkey, dropped to the ocean floor in 2006 for diving tourists was visibly infested with shipworms and gribbles by 2010. The primary culprit, Shipway discovered, was *Teredothyra dominicensis*—a shipworm species discovered in Dominica and previously thought to live exclusively in the Gulf of Mexico and Caribbean Sea. The creatures were rapidly infesting the wooden panels planted by Shipway at the wreck site in the Mediterranean, suggesting they were well established there, too. Combined with documented increases in local sea temperature and salinity, this doesn’t bode well for Mediterranean cities such as Venice, Italy, which still has loads of wooden pilings and other structures in the water, and plenty of problems with the resident shipworm and gribble species.

It’s too soon to tell whether any of the species will make a home alongside the one native and handful of introduced shipworm species here, says Carlton, a pioneer in the study of invasive marine organisms. But if they do, it will be the latest chapter in a tale of shipworms and people that stretches back millennia. Since some of the earliest recorded references to the creatures appeared in texts from Ancient Greece, the clams have hitched rides in the hulls of wooden boats and, later, in ballast water, settling in ports and harbors around the globe and devastating wooden infrastructure as they went. In fact, some species have become so ubiquitous, they’re cryptogenic—meaning it’s impossible to tell where they originated.

*Abstracted from Hakai Magazine, December 5, 2016*

## Officers, Committee Chairs & Staff of the National Shellfisheries Association

Steven M. Allen  
President  
Bowdoin Coastal Studies Center  
15 Bowdoin St  
Brunswick, ME 04011  
Phone: (443) 994-5164  
Email: [sallen@bowdoin.edu](mailto:sallen@bowdoin.edu)

Dr. John Scarpa  
President-Elect  
Texas A&M University  
Dept. of Life Sciences  
6300 Ocean Drive (Unit 5800)  
Corpus Christi, TX 78412  
Phone: (361) 825-2369  
Email: [john.scarpa@tamucc.edu](mailto:john.scarpa@tamucc.edu)

Peter Kingsley-Smith  
Vice President,  
Co-Chair, Student Endowment Awards  
Marine Resources Research Institute  
South Carolina Dept. of Natural Resources  
217 Fort Johnson Road  
Charleston SC 29412  
Phone: (843) 953-9840  
Email: [kingsleysmithp@dnr.sc.gov](mailto:kingsleysmithp@dnr.sc.gov)

Nature McGinn  
Treasurer  
Email: [naturemcginn@gmail.com](mailto:naturemcginn@gmail.com)

Dr. Lisa Milke  
Secretary  
NOAA – 212 Rogers Avenue  
Milford, CT 06460  
Phone: (203) 882-6528  
Email: [lisa.milke@noaa.gov](mailto:lisa.milke@noaa.gov)

Dr. Carolyn Mueller Hansen  
Chair, Past-Presidents', Elections, Awards  
Committees, Webmaster  
University of Dayton  
300 College Park  
Dayton, OH 45469  
Phone: (937) 229-2141  
Email: [khansen1@udayton.edu](mailto:khansen1@udayton.edu)

Dr. Christopher V. Davis  
Webmaster  
Pemaquid Oyster Company  
P.O. Box 302  
Waldoboro, ME 04572  
Phone: (207) 832-6812 (voice & fax)  
Email: [cdavis@midcoast.com](mailto:cdavis@midcoast.com)

Dr. Laura Hoberecht  
Chair, Pacific Coast Section  
WCR/NOAA/NMFS  
7600 Sand Point Way Northeast Bld #1  
Seattle, WA 98115  
Phone: (206) 526-4453  
Email: [laura.hoberecht@noaa.gov](mailto:laura.hoberecht@noaa.gov)

Lewis Deaton  
2015-2018 Member-at-Large  
Chair, Resolutions Committee  
University of Louisiana - Lafayette  
P.O. Box 42451  
Lafayette, LA 70504  
Phone: (337) 482-6549  
Email: [led9784@louisiana.edu](mailto:led9784@louisiana.edu)

Brett Dumbauld  
2016-2019 Member-at-Large  
2030 SE Marine Science Drive  
Newport, OR 97365  
Email: [brett.dumbauld@oregonstate.edu](mailto:brett.dumbauld@oregonstate.edu)

Dr. Kay McGraw  
2017-2020 Member-at-Large  
NOAA Restoration Center  
10409 Edgefield  
Adelphi, MD 20783  
Phone: (301) 427-8686  
Email: [kay.mcgraw@noaa.gov](mailto:kay.mcgraw@noaa.gov)

Dr. Sandra E. Shumway  
Editor, *JSR*; Conference Manager, Membership  
Committee  
University of Connecticut  
Dept. of Marine Sciences  
1080 Shennecossett Road  
Groton, CT 06340  
Phone: (860) 405-9282  
Email: [sandra.shumway@uconn.edu](mailto:sandra.shumway@uconn.edu)

Dr. John N. Kraeuter  
Chair, Audit-Budget-Finance Committee  
Co-Chair, Publications Committee  
1 Hills Beach Road  
Biddeford, ME 04005  
Email: [kraeuter@hsrl.rutgers.edu](mailto:kraeuter@hsrl.rutgers.edu)

Dr. Susan E. Ford  
Co-Chair, Publications Committee  
4408 Julie's Way  
Williamsburg, VA 23188  
Phone: (856) 785-0074 ext. 4305  
Email: [susan@hsrl.rutgers.edu](mailto:susan@hsrl.rutgers.edu)

Melissa Southworth  
Co-Chair, Student Endowment Awards  
VIMS  
PO Box 1346  
1208 Greate Rd  
Gloucester Point, VA 23062  
Phone: (804) 684-7821  
Email: [melsouth@vims.edu](mailto:melsouth@vims.edu)

Dr. Shirley Baker  
Membership Committee  
University of Florida  
7922 NW 71st St,  
Gainesville, FL 32653  
Phone: (352) 273-3627  
Email: [sbaker25@ufl.edu](mailto:sbaker25@ufl.edu)

Tessa Getchis  
Membership Committee  
CT Sea Grant  
University of Connecticut  
1080 Shennecossett Road  
Groton, CT 06340  
Phone: (860) 405-9104  
Email: [tessa.getchis@uconn.edu](mailto:tessa.getchis@uconn.edu)

Hillary Lane Glandon  
Students Recruits, Membership Committee  
University of Maryland  
Biology Building #144, Room 1210  
College Park, MD 20742  
Phone: (301) 405-9701  
Email: [hillaryannelane@gmail.com](mailto:hillaryannelane@gmail.com)

LeRoy Creswell  
Editor, *NSA Quarterly Newsletter*,  
Co-Chair, Student Endowment Awards  
Florida Sea Grant Extension Program  
2199 South Rock Road  
Ft. Pierce, FL 34945  
Phone: (772) 834-9062  
Email: [creswell@ufl.edu](mailto:creswell@ufl.edu)

Noreen Blaschik  
Associate Editor, *NSA Quarterly Newsletter*  
University of Connecticut  
1080 Shennecossett Rd  
Groton, CT 06423  
Email: [noreen.blaschik@uconn.edu](mailto:noreen.blaschik@uconn.edu)

Linda Kallansrude, *Secretariat*  
20790 Country Creek Drive  
Unit #516  
Estero, FL 33928  
Phone: (239) 676-5685  
Email: [lindajk@optonline.net](mailto:lindajk@optonline.net)





Linda Kallansrude, NSA Secretariat  
20790 Country Creek Drive  
Unit #516  
Estero, FL 33928  
*Forwarding Service Requested*

## Upcoming Events

### **Aquaculture Laboratory Hybrid Course:**

August 21– September 8, 2017. Hatfield Marine Science Center, Newport OR, USA. For more information: <http://hmsc.oregonstate.edu/academics/courses-hmsc/summer-term/summer-courses>

### **71<sup>st</sup> PCSGA Annual Shellfish Conference &**

**Tradeshow:** September 19-21, 2017. Welches, Oregon. For more information: <http://pcsga.org/annual-conferences/>

### **8<sup>th</sup> Congresses of the European Malacological**

**Societies (EUROMAL):** September 10-14, 2017. For more information: <http://www.euromal.pl/index.php?id=13>

### **8<sup>th</sup> International Conference on Fisheries & Aquaculture:**

October 2-4, 2017. Toronto, Canada. For more information: <http://fisheries.conferenceseries.com>

### **45<sup>th</sup> Scientific Symposium of the United States-Japan Natural Resources Panel on Aquaculture (UJNR):**

October 16-19, 2017. For more information: [http://www.nmfs.noaa.gov/aquaculture/supplemental\\_pages/27\\_ujnr\\_.html](http://www.nmfs.noaa.gov/aquaculture/supplemental_pages/27_ujnr_.html)

**110<sup>th</sup> NSA Annual Meeting: March 18-22, 2018. Seattle, Washington (USA).** For more information, visit: [www.shellfish.org](http://www.shellfish.org)

For more information on these conferences:

[www.was.org](http://www.was.org)

**Asia Pacific Aquaculture 2017:** Aug. 26-29. Johor Bahru, Malaysia

**Aquaculture Europe 2017:** Oct. 17-20. Dubrovnik, Croatia

**Aquaculture America 2018:** Feb. 19-22. Las Vegas, Nevada, USA

**AQUA 2018:** Aug. 25-29. Montpellier, France  
**Aquaculture 2019:** Mar. 6-10. New Orleans, Louisiana, USA

**Aquaculture 2022:** Feb. 27-Mar. 3. San Diego, California, USA

**Aquaculture America 2023:** Feb. 19-22. New Orleans, Louisiana, USA

If you would like to announce a meeting, conference, workshop, or publication that might be of interest to NSA members, please contact the *QNL* Editor, LeRoy Creswell ([creswell@ufl.edu](mailto:creswell@ufl.edu)).