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President's Message



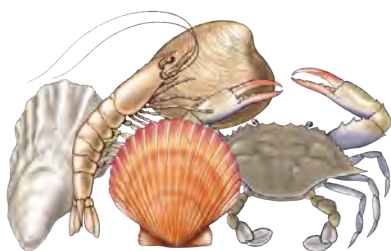
This spring has been a busy one for me with our National Shellfisheries Association Annual meeting in Portland, Oregon in March and the International Pectinid Workshop in April here in New Bedford, Mass. In anticipating them, I was

a bit nervous about how it would all come together, but both were excellent. Our annual NSA meeting could not have gone better, the keynote presentations were unique, thoughtful, challenging and exciting. In the past I've attend meetings where I was only half there, distracted by responsibilities elsewhere. During this meeting I made the effort to thoroughly sink into the sessions and to attend talks out of my regular field of study. This completely paid off as I was able to look at some persistent questions I'd been struggling with in a new light.

Reconnecting with friends and colleagues was great. Some of us were once students together, others were former students, and some I only see each year at the NSA meeting. Spending time with you all was refreshing in a way I hadn't realized I needed. At a time when external pressure and even the long Northeast winter can push us toward isolation, it was energizing to reengage, exchange ideas, and take part in lively scientific discussion and debate, but the best, was just to hang out for a bit, grab a bit together and catch up.

Now the field season is upon us, the end of the academic semester is here, "it's go time!" I wish you all a great summer, thank you for the great annual meeting, and the best of luck with the summer.

Kevin Stokesbury, President



MAJOR NEWS FROM BIOONE

Free Open Access (in perpetuity) for 2026

As a result of the new and successful 'Subscribe to Open' (S2O program at BioOne, all articles published in the *Journal of Shellfish Research* in 2026, Volume 45, will be opened under a Creative Commons license, making them Open Access (in perpetuity) at no charge to authors. The offer may be expanded in future years, but is contingent upon the overall success of the program.

This news is a great boon to the *Journal* and to authors – this is your opportunity to make your research freely available to the entire world and for maximum exposure of the *JSR*.

Consider taking advantage of this opportunity now and submit your manuscripts soon.

And, **REMEMBER TO DOWNLOAD ARTICLES FROM JSR USING BIOONE** to support the NSA and publication of the *Journal*! Remember that royalties from BioOne pay for publication of the *JSR* in its entirety.



In this issue:

- 118th Annual Meeting Recap
- Student Research Grant & Presentation Awards
- Queen Conch Lab
- 24th International Pectinid Workshop
- VOSARA 2.0

2025 Susan E. Ford Student Research Update

**Awardee: Jaypee Samson
University of Rhode Island**

“Evaluation of neoplasia-specific genes as diagnostic markers for disseminated neoplasia in northern quahogs, Mercenaria mercenaria”

Cancer is generally not classified as an infectious disease. Most infectious illnesses are caused by external agents such as bacteria, viruses, fungi, parasites, or prions. In contrast, cancer usually develops within a single organism and is therefore biologically self-contained: it either regresses or ultimately results in the death of its host, at which point the cancer also ceases to exist. In rare circumstances, however, cancer cells can be transmitted between individuals and behave as infectious agents. These conditions are referred to as transmissible cancers. Although transmissible cancers are rare, they have been documented in several species of marine bivalves, including clams, mussels, and cockles. In these animals, the disease is known as disseminated neoplasia (DN), a contagious, leukemia-like cancer. This disease is characterized by the uncontrolled proliferation of abnormal blood cells, called hemocytes, within the circulatory system. As these cells accumulate, they interfere with normal physiological processes and frequently lead to mortality. Because DN can potentially spread both within and between populations as an infectious disease, it represents a significant threat to natural shellfish populations as well as to aquaculture operations that rely on consistent survival rates.

My research aims to uncover the molecular processes that drive DN in quahogs or hard clams (*Mercenaria mercenaria*) and to develop a practical molecular diagnostic tool for early detection. At present, DN is most commonly diagnosed by histology or hemolymph (blood) smears to identify abnormal cell morphology. While these methods are effective for detecting advanced disease, they are less capable of identifying early or low-intensity infections, require substantial time and expertise, and are not well suited for large-scale monitoring efforts. To better characterize the cellular changes associated with DN, single-cell RNA sequencing, a technique that measures gene expression at the level of individual cells rather than averaging signals across heterogeneous samples, was employed. This approach allows neoplastic cells to be identified based on shared transcriptional profiles, even when they are mixed with normal cells. This method was applied to hemocytes isolated from both healthy clams and clams affected by DN and identified nine distinct hemocyte populations. One of these populations consisted almost entirely of neoplastic cells. Comparative analysis between neoplastic cells and normal hemocytes revealed substantial functional differences. Neoplastic cells exhibited decreased activity in pathways involved in immune defense and cellular regulation, including processes related to pathogen engulfment, cellular recycling, and programmed cell death. The suppression of these pathways suggests that DN cells may evade immune surveillance and resist signals that would normally eliminate damaged or abnormal cells. In contrast, neoplastic cells showed elevated activity in pathways associated with proliferation, survival, and energy metabolism. Highly expressed gene sets were linked to DNA replication, cancer-associated signaling pathways observed in other

organisms, and metabolic processes that support rapid cell division. Alterations in gene copy number across multiple chromosomal regions was also detected, consistent with genomic instability. Together, these findings indicate that DN cells undergo coordinated molecular changes that promote unchecked growth and survival.

Using the single-cell data, seven genes that were expressed exclusively in neoplastic cells and absent from normal quahog hemocytes were identified. With funding from the Susan Ford Research Grant, I advanced this discovery into applied diagnostic development by designing primers, optimizing assay conditions, and testing candidate markers on available samples. Following optimization and initial evaluation, two of the seven genes emerged as particularly strong candidates,



Jaypee collecting hemolymph from quahogs for disease diagnosis and gene expression analysis. Photo credit: S. Murphy

demonstrating higher specificity for neoplastic samples relative to non-neoplastic controls. The development of a molecular diagnostic assay for DN is particularly relevant in areas like Wellfleet Harbor, Massachusetts, where DN has been tracked in quahog populations since 2009. Over time, the disease has expanded from a limited number of sites to the majority of aquaculture leases within town waters. Despite its ecological and economic impacts, effective management of DN has been hampered by limited knowledge of its transmission dynamics and the absence of practical, field-ready diagnostic tools.

The next phase of this project involves validating these candidate markers in a larger and more diverse collection of field-sampled clams. This expanded testing will assess the robustness and reliability of the markers under real-world conditions. The project also complements ongoing DN research through collaboration with Roger Williams University. By translating single-cell discoveries into targeted molecular assays, this work contributes to the development of improved tools for early DN detection. In the coming months, I will continue marker validation across multiple samples from different sites, bringing the project closer to a deployable diagnostic tool that supports both fundamental DN research and practical monitoring for aquaculture and coastal resource management.

Nature's toughest teeth: Chitons inspire future material design



Credit: Nuytsia@Tas, Flickr

When you think of tough teeth, most people would think of a large, predatory animal such as an alligator or a shark. Surprisingly, nature's toughest teeth are found on chitons, a class of marine molluscs that feed by scraping algae off rock surfaces using their radula. Scientists have been fascinated and puzzled by the strength of chiton teeth. In a recent article in *Science*, scientists from Okayama University, Japan revealed a protein that underlies the mineralization of chiton teeth.

While silica and calcium are common organic minerals formed in various living organisms, few synthesize magnetite, an iron-based biomineral with strong magnetic properties. Magnetite has been identified in chitons as a key component of their tooth cusps, the pointed projections on the scraping surface. This mineral renders the teeth exceptionally hard and abrasion-resistant. Using high-resolution electron microscopy and spectrometry to analyze the nanostructure of chiton teeth, Nemoto et al. found that the radular teeth matrix protein 1 (RTMP1) plays a central role in incorporating magnetite into chiton teeth.

The researchers previously compared the protein expression profiles of tissues isolated from the radular base and the mineralized cusps of the gumbot chiton, *Cryptochiton stelleri*, and identified 22 proteins specific to the mineralized region. Following this lead, they found that RTMP1 and its homologs were chiton-specific and present in three other chiton species - *Acanthopleura japonica*, *Acanthochitona achates*, and *Placiphorella stimpsoni*.

Nemoto et al. also performed various in vitro mineralization assays by using isolated, nonmineralized chiton teeth and purified RTMP1 produced in engineered yeast. In untreated isolated teeth, iron oxide formation occurred preferentially in the cusp region where RTMP1 was localized during the initial phase of maturation. By contrast, iron oxide formation was substantially reduced in control teeth that were pretreated with a protein-solubilizing detergent, which removed unbound proteins. A mineralization experiment that used engineered yeast showed that purified RTMP1 readily binds to iron ion (Fe³⁺) and chitin fibers. Chitin fibers to which RTMP1 was already bound were subsequently decorated with iron oxide nanoparticles. These results indicate that RTMP1 could either promote iron oxide mineralization or facilitate binding of iron oxide particles to the fibers.

RTMP1 holds potential for novel technologies requiring the controlled patterning of metal oxides at specific sites, which could be applied to the fabrication of sensors and memory devices. Additionally, because RTMP1 can regulate iron deposition, it may also aid research on iron-related diseases and cellular iron metabolism.

This article was abstracted from: Scheffel, A. 2025. *Hardening Nature's Toughest Teeth*. *Science*, 389(6760).

Full article: Nemoto, M., Okada, K., Akamine, H., Odagaki, Y., Narahara, Y., Okoshi K., Obuse, K., Kisailus, D., Moriya, H., and Satoh, A. 2025. *Radular teeth matrix protein 1 directs iron oxide deposition in chiton teeth*. *Science*, 389 (6760): 637-643. DOI: [10.1126/science.adu0043](https://doi.org/10.1126/science.adu0043)

2026 NSA 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 25th of March, 2026, the National Shellfisheries Association formally recognizes and thanks:

This year, the following Resolutions were presented.

- John N. Kraeuter: for over five decades of outstanding efforts on behalf of the NSA, and for sharing his knowledge, experience, and time freely and generously. His service as Past President, Publications Chair, and many other efforts are noted, but perhaps his greatest contribution has been his oversight of long-term finances and investments as Chair of the Audit-Budget-Finance Committee for the past decade. All of his efforts will serve the NSA well into the future and are most gratefully acknowledged.
- Sheridan Press: for their 40th year of outstanding service and collaboration publishing the *Journal of Shellfish Research*. Joyce Coulter, Kristy Martin, Susan Parente, Cindy Fullerton, Jeannie McKenney, Girija Ilangovan, and Sudhakar Bala make production of the *Journal of Shellfish Research* almost effortless, and their efforts are gratefully acknowledged and appreciated.
- BioOne: the non-profit publisher, which has been a major contributor to the expansion of the online reach and readership of the *Journal of Shellfish Research* over the last 20 years. Their continued enthusiastic support is gratefully acknowledged.
- Christopher Langdon: for a long and illustrious career dedicated to the study of shellfish, student development, and scientific rigor. We wish him a long and enjoyable retirement.
- Danielle Kreeger: Throughout her career and personal life, she demonstrated courage, integrity, and perseverance in the face of adversity. She leaves behind an exceptional legacy of research, outreach, leadership, and mentorship.
- Christopher Puttock, Acacia Alcivar-Warren, Kathy Tang, The FUCOBI Foundation, and the Rotary International: for their generous continued support of the NSA, and especially the engagement of students from underrepresented communities globally.
- The extraordinary staff of the Marriott Portland Downtown Waterfront, especially Delaney Kenny, Beverly Powers, Victor Gonzalez, Josh McHale, Maddie Halvorson, Apollonia Boccuzzi, Deanna Burrell, Chloe Knudson, and Gilberto Gutierrez, for their outstanding assistance in making the 118th annual meeting of the National Shellfisheries Association a great success. Everyone went 'above and beyond' and their professionalism, attention to details, and friendliness were instrumental in making the meeting memorable. WE THANK THEM ALL FOR THEIR OUTSTANDING EFFORTS!

TIME TO START THINKING ABOUT SPECIAL SESSIONS FOR BALTIMORE

March, 2027 may seem like a distant time, but it will be here before you know it. The time is now to begin planning special sessions for the 119th Annual Meeting in Baltimore. Special sessions are a great opportunity to provide a focused discussion of a topic, to share ideas, and to foster future collaborations. Many fields of research involve different interest groups and organizations and this is a chance to bring new people and new ideas to the NSA. Planning a special session means recruiting participants to fill the program, it does not mean waiting to see what abstracts are submitted and putting them in some order for presentation. This is a great way to help guarantee a strong meeting program and to spend a session with like-minded people discussing your favorite topic!

If you are willing to organize a session, or if you just have an idea for a session topic, send them along to Sandy Shumway. A general call will be sent out in the near future.



Johns Hopkins University Press and BioOne Announce Landmark Non-profit Integration

BioOne is integrating with Johns Hopkins University Press, effective September 1, 2026, in a bold move designed to enhance community impact, expand future opportunities, and transform how they engage with researchers.

BioOne's flagship aggregation of bioscience research journals, BioOne Complete, as well as their eBook collections, will continue as discrete and independent products within Hopkins Press. The union promises significant operating efficiencies and combined scale with Hopkins Press's Project MUSE, the widely used collection of journals and books in the humanities and social sciences. Both organizations were early adopters of the equitable open access model, Subscribe to Open.

This powerful union is designed to allow both organizations to maximize their missions and enhance their impact in exciting new ways. For BioOne publishers, this move provides increased financial security (including the safeguarding of your royalties over the long-term) as well as the potential for new strategic services and growth opportunities that would be prohibitive for BioOne alone.

2026 NSA Student Research Awards

The Association has a number of competitive grants for students that provide \$1250 in support student research projects as well as for the 'Outstanding Student Paper' published in the *JSR*.



The **Melbourne R. Carriker Award** for student research in shellfisheries was awarded to two students this year. Congratulations to Flavie Perron of Dalhousie University for her proposal "Ecophysiological responses of triploid blue mussels (*Mytilus edulis*) exposed to heat stress" and to Paul Coyne of Rutgers University for his proposal "Using genomic tools to enhance New Jersey bivalve aquaculture".



The **Michael Castagna Award** for student research devoted to applied shellfish studies shellfisheries was awarded to Anne Gilewski of the University of Connecticut for her proposal "Tire wear particles in Connecticut estuaries and their interactions with bivalve shellfish."

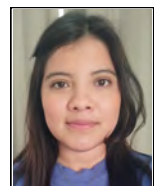
The **Sandra E. Shumway Award for Outstanding Student Paper** published in the *Journal of Shellfish Research* has specific selection and evaluation criteria: (1) The lead author must have been a student when the work was completed, (2) the paper must present the student's work, not that of a co-author, (3) it is evaluated on the quality of science and writing, and the importance of the work to the field of shellfish research. A panel of judges evaluated 12 papers, and two individuals received almost identical scores and it was decided to present awards to two students. Congratulations to Jessica Pruett of the University of Southern Mississippi for her paper:



Pruett, J.L., Otts, S.S., Willett, K.L., Fairbanks, L., Darnell, K.M., and Gochfeld, D.J. 2024. A past, present, and future outlook on the Mississippi oyster fishery. *Journal of Shellfish Research*, 43(1): 1-13. doi.org/10.2983/035.043.0101. Jessica was a 2025 BioOne Ambassador.

Congratulations to Maritza Garcia-Flores of the Instituto Politecnico Nacional, Mexico for her paper:

Garcia-Flores, M., Aguilar-Cruz, C.A., Rodriguez-Jaramillo, C., Morelos-Castro, R.M., Hernandez-Cristobal, O., and Arellano-Martinez, M. 2024. Histological and morphological characterization of the development of the Kolliker's organs of green octopus, *Octopus hubbsorum*. *Journal of Shellfish Research*, 43(2): 281 - 289; doi.org/10.2983/035.043.0215. An extra congratulations to Maritza who received the award previously in 2023.



Thank you, again, to all the students for submitting their proposals and the reviewers for evaluating each of these proposals and student papers so thoughtfully.

Application deadline is November 1, 2026. Start planning now! Details are available at www.shellfish.org.

Aswani Volety
Past-President

From Survey Data to Interactive Map: VOSARA 2.0



The VMRC staff fishing the patent tongs during the annual oyster survey. Photo credit: Karen Reay

A new, interactive data platform developed by the Molluscan Ecology Lab at the William & Mary Batten School of Coastal & Marine Sciences and VIMS, in collaboration with the Virginia Marine Resources Commission (VMRC), is transforming how scientists, managers, watermen and the public understand the wild oyster population in Virginia. Named the Virginia Oyster Stock Assessment and Replenishment Archive (VOSARA) 2.0, it converts almost three decades of fishery-independent oyster survey data into a dynamic, GIS-based visualization tool. The platform allows users to explore changes in variables such as oyster abundance, shell volume, disease prevalence, and harvest status across the Virginian public oyster grounds from 1998 onward.

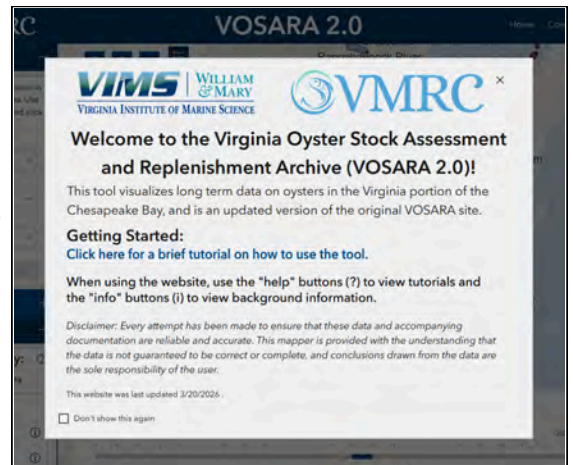
The project was led by Ellen Rowe, a recent William & Mary graduate, with input from Senior Marine Scientist, Melissa Southworth and Professor, Roger Mann. Rowe was tasked with creating a way for users to visually explore decades of spatial data, instead of having to sift through dense graphs. VOSARA 2.0 allows users to see changes in oyster populations year by year through a time slider. By pressing play, a user can watch how different variables change over time.

Since 1993, scientists in the Molluscan Ecology Program at VIMS have worked in partnership with the VMRC to conduct annual fishery-independent surveys of public oyster reefs in the Virginian portion of the Chesapeake Bay. These surveys measure oyster abundance by size class, shell volume, recruitment and disease levels — creating one of the longest-running oyster monitoring datasets in the US.

The original VOSARA website made this data publicly accessible, but required manual entry of each year's results, as well as written summaries documenting changes at each individual reef. In addition, managers at the VMRC had to export the data and create graphs to examine individual factors. The new site, however, has been set up to automate annual data processing. New data can be viewed within weeks to just days of data collection from the field.

VOSARA 2.0 utilizes ArcGIS Online Experience Builder to replace the previous version's static visuals and accompanying summaries. The tool centers on a map and time slider that allow users to condense decades of data into less than a minute. Users can zoom from the Bay down to tributaries and individual reefs, toggle between data layers such as market oysters, small oysters, spat, and brown shell volume, while also viewing harvest closures and shell replenishment locations directly on the map. Automatically generated graphs and downloadable datasets on an individual reef, management area, or whole river level allow for deeper analysis at a scale of the user's preference.

Another key partner in the development of the tool was Andrew Button, the VMRC deputy chief of the Shellfish Management Division and head of the Conservation Replenishment Department. Button works alongside the Shellfish Management Advisory Committee (SMAC), legislators and others at the VMRC to make management decisions about the Virginian public oyster fishery. VOSARA 2.0 allows him to present information to various stakeholders in an easy to use, visual manner, speeding up the decision-making process, without losing any important information.



Screenshot of the VOSARA 2.0 Welcome Page

Several management examples are clearly illustrated by VOSARA 2.0, including the rotational harvest strategy implemented in the Rappahannock River in 2007, and in other tributaries in later years, as well as changes to the harvest effort strategies around 2016 and 2017.

Under the rotational harvest system, reefs are opened for harvest, then replenished with clean oyster shell and closed for two years before reopening. Replenishing reefs with oyster shells provides additional substrate to which juvenile oysters can affix while mitigating the impacts of commercial harvests. Harvest effort strategies are aimed at ensuring sustainability by regulating things such as daily bushel limits or the type of gear used by watermen. Using the time slider, users can see management areas alternate between open and closed and watch oyster abundance increase over time. Additionally, the VMRC bases replenishment decisions on the survey data displayed in VOSARA 2.0, aiming to target reefs that need replenishment the most. The tool allows users to visualize this, as well as other management strategies. After two years of development, VOSARA 2.0 is now guiding ongoing management of one of the most important natural resources in Virginia. Plans are moving forward to adapt this tool for other commercially important shellfish species, ensuring important science better informs management decisions.

To explore the tool go to [VOSARA 2.0](#).

Melissa Southworth and Ellen Rowe, VIMS

This article was adapted from a piece originally written by John Wallace for W&M Batten School and VIMS. To read full article, [click here](#).

NSA IN PORTLAND, OREGON - REDUX



In 1993, the NSA held its 85th annual meeting at the Marriott in Portland, joined by the PCS and the Pacific Rim Shellfish Sanitation Meeting. John Kraeuter was President, and there were ~200 members in attendance.

Jerome LaPeyre received the Thurlow Nelson Award, and several students received travel awards – Dan Roelke, Julie Gauthier, Brian Beal, Dave Bushek, Aswani Voley, Gustavo Calvo, Kristine Feldman, Maria Villac and Ami Wilbur. Note a lot of folks in that list who have been stalwarts at the NSA, and a testament to the value of getting involved early in one's career.

The first annual SEF Auction was held – in the President's suite with beer in the bathtub, and \$500 was raised. The SHELLFISH forum was introduced by Scott Siddall along with a definition of 'the internet' and the NSA entered the electronic world. We've come a long way.

The 118th annual meeting in Portland is now history also, and the city did not disappoint. Cherry blossoms were at peak bloom, the hotel, facilities, and staff were stellar, and participants had the opportunity to enjoy great food, breweries, museums, Chinese gardens, and more. While current Federal and State government actions have made travel and fund raising more challenging, approximately 275 participants (54 students) enjoyed a strong and exciting program including some 32 sessions (225 oral presentations and 51 posters) designed to provide something of interest for everyone. Thanks to all for starting each day with a thought-provoking and outstanding plenary presentation including Madonna Moss (University of Oregon), Bob (Skid) Rheault (ECSGA), Christopher Langdon (Oregon State University), and Andrew Suhrbier (DFO Canada). Bruce Koike offered a hands-on workshop on the art of *Gyotaku* (fish printing), and all of the regular events were in place - the President's Reception, the Student Breakfast, the SEF Auction, and the Business Luncheon. The Scallop Gallop this year was organized by the Recruits Co-Chairs, and the Film Festival room was occupied regularly. The Auction and Sales Booth combined for over \$6,000, and Sandy marked 40 years as Editor of the *JSR*.

Special thanks to all who helped make the 118th conference a success. Our generous sponsors (see p. 7), the seafood donors (Baywater Shellfish Co., Chelsea Farms, and Taylor Shellfish), and those who helped keep things running during the meeting. Noreen Blaschik did her usual outstanding job of keeping everybody organized. Eric Heupel designed the program cover, managed the web page, the film festival, A/V issues, and put out fires routinely. The Recruits, organized by Emily Fuqua and Anne Gilewski were indispensable, and the meeting could not have functioned without their assistance. The entire staff at the Marriott were amazing. Delaney Kenny and Beverly Powers were especially helpful and attended to every detail before, during, and after the meeting.

The 119th Annual Meeting will be held in Baltimore, Maryland, March 22 – 27, 2026. Start thinking about your contributions now. If you are interested in organizing a special session, please get in touch with Sandy. Gather up your auction items, film contributions, train early for the Scallop Gallop, and see you there!

The Conference Management Team



2026 NSA Student Presentation Awards

At the annual meeting in Portland, graduate students eligible for the Nelson (oral) and Gunter (poster) outstanding presentation competition awards were identified based on cross-referencing the lists of graduate student presentation abstracts and the current NSA student membership list. This resulted in 31 oral presentations and 9 posters presentations being identified as eligible for the competitions. The Student Endowment Fund Committee would like to thank the 33 judges who volunteered their time and expertise at the meeting, we could not do it without you.



The **Thurlow C. Nelson Outstanding Oral Presentation Award** was awarded to Kimberly Lavoie, from University of Rhode Island for her presentation, "Assessing the influence of birds and site-specific characteristics of oyster farms on fecal coliform levels in Southern New England."

The **Gordon Gunter Outstanding Poster Presentation Award** was awarded to Julianna Colucci, from Cal State Fullerton for her poster, "Boring problems: quantifying bioerosion patterns in Olympia oysters across southern California estuaries."



Many congratulations to Kimberly and Juliana who will receive two years of membership to the NSA, a certificate of accomplishment, as well as a great résumé builder marking this achievement! We will be looking to recruit judges for the next meeting in Baltimore, Maryland in the spring of 2027, so watch your email, and please volunteer!

Also, there is still a vacant position as Co-Chair of the Student Endowment Fund Committee. It's a great way to help the Association and get to know other members as well as future leaders in the field.

Steve Geiger
Student Endowment Fund Committee

NSA Members Awarded the '2026 Outstanding ONE HEALTH Researcher in Fisheries and Aquaculture' by the FUCOBI Foundation



From left to right: Sandra Shumway (University of Connecticut), Milko Jorquera (Universidad de La Frontera), Acacia Alcivar-Warren (FUCOBI Foundation of Ecuador and ESRAG), Christopher Puttock (ESRAG), and Ikuo Hirono (Tokyo University of Marine Science and Technology).

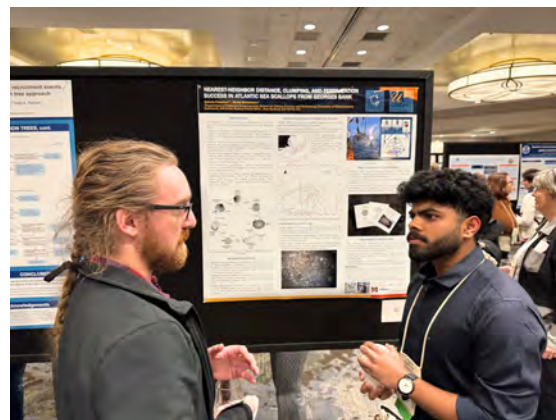
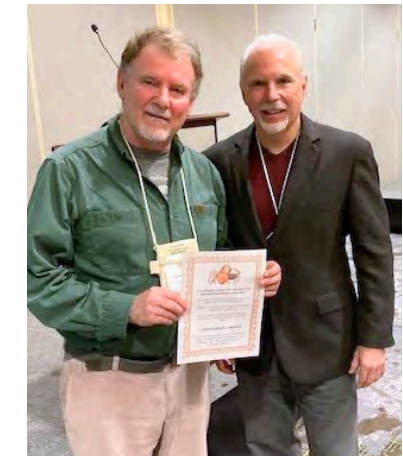
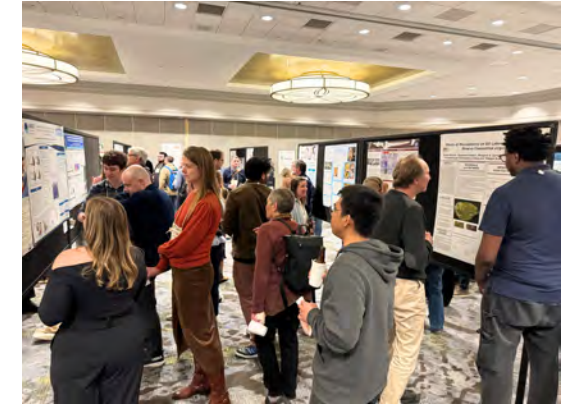
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Little Pond Nature Prints



THE 118th ANNUAL MEETING



24th International Pectinid Workshop New Bedford, Massachusetts April 22 – 27, 2026



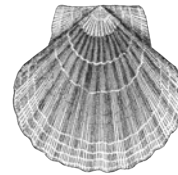
The New Bedford Whaling Museum was the perfect venue in which to celebrate 50 years of International Pectinid Workshops (IPW). The series was interrupted by Covid, and the 24th IPW welcomed participants from 11 countries to discuss all things ‘scallop’, renew old friendships, and forge new collaborations. There were over 40 presentations, poster sessions, and a visit to the New Bedford Fishing Heritage Museum. A focused Industry Day included talks on the state of international scallop fisheries from Europe, Australia, the USA, and Canada, included members of the fishing community for a panel discussion, and ended with a tour of a commercial trawler. The conference ended with a lobster dinner and an outstanding musical program by John Fuzik (Cat Shadow).

Special thanks to Noreen Blaschik and Eric Heupel for their always efficient and friendly efforts. The team members from UMassD were indispensable helpers, and the staff at the Whaling Museum, especially Beatriz Oliveira, could not have been more accommodating.

A very generous group of sponsors, notably including the fishing community, made the IPW possible and their help is gratefully acknowledged (see p. 11).

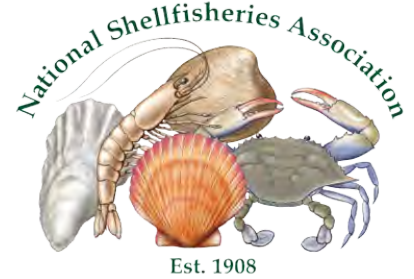
The program and a photo gallery are available at: <https://internationalpectinidworkshop2026.com/>

Kevin Stokesbury, Sandy Shumway, and Jay Parsons

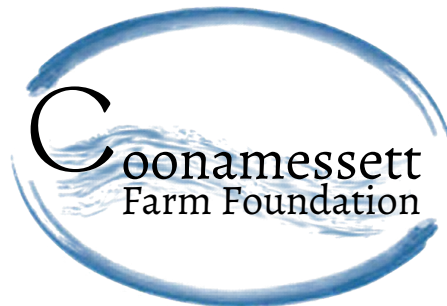




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From Hatcheries to Hope: How the Queen Conch Lab is Transforming Conservation Across the Caribbean

The Florida Atlantic University (FAU) Harbor Branch Oceanographic Institute Queen Conch Lab (QCL) is becoming one of the most innovative marine conservation programs in the Caribbean. Led by Dr. Megan Davis, the lab combines her decades of queen conch research with practical solutions that help communities restore this culturally and economically important species. Through hands on aquaculture training, mobile hatcheries, restoration partnerships, and educational programs, the QCL is building a network of local leaders across the Caribbean who can raise queen conch from egg masses to juveniles for restoration, future seafood production, and community engagement.

The work of the QCL is increasingly urgent. In 2024, NOAA Fisheries listed the queen conch as threatened under the Endangered Species Act due to overfishing, habitat loss, and declining population densities throughout the Caribbean. In 1992, queen conch became a CITES Appendix II species to help with sustainable fisheries management for export from the Caribbean to the United States.

The QCL has become especially known for its Mobile Lab network, which brings plug and play hatcheries directly into Caribbean communities. These labs are designed and assembled at FAU Harbor Branch and can be shipped to partner sites where local scientists, students, fisherfolk, and residents are trained to operate them. The Mobile Lab and Stationary Lab network now spans locations in Puerto Rico, three places in The Bahamas, Jamaica, and Curacao helping create blue jobs while supporting restoration and sustainable seafood goals.

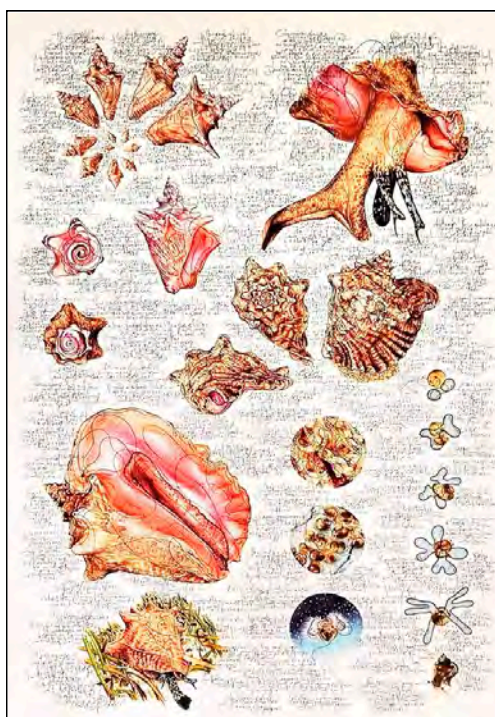
On February 18, 2026, the QCL was featured in the John & Barbara Ferrera Ocean Science Lecture Series with a presentation titled “Our Story: The Queen Conch Lab,” delivered by Dr. Megan Davis and other members of the QCL team. The lecture shared the history of the program,

the science behind queen conch aquaculture, and the future of the lab’s restoration and community training work. A total of 351 people attended the event through a combination of in-person and virtual participation, reflecting the growing interest in queen conch conservation and aquaculture. A recording of the lecture can be found here: <https://www.fau.edu/hboi/discover-fau-harbor-branch/ocean-science-lecture-series/>

The OSLS event also featured the premiere of “Conch Shell Reverie,” a new artistic collaboration by Don Chilton and Aric Attas. The piece is a tribute to the queen conch and combines conch shell performance, ambient soundscapes, and underwater recordings. Don and Aric premiered “Conch Shell Reverie” during the OSLS event and is now available on Spotify and YouTube (<https://www.youtube.com/watch?v=t3ReO6oDJWg>).



Members of the Queen Conch Lab team and collaborators of the program. Left to right: Dylan Gronley, Skye Flegg, Don Chilton, Megan Davis, Aric Attas, Amanda Matthews, and Robinson Bazaruto.



The FAU Harbor Branch QCL is excited to share a new art and science collaboration. Wildlife illustrator Vitor Velez, The Headlessketcher, has launched a stunning archival print inspired by the biology, life cycle, and ecological importance of the queen conch. Printed on museum-grade paper, each piece preserves the detail, texture, and color depth of the original hand-drawn illustration.

Each print sold directly supports the QCL to advance restoration, community hatcheries, youth education, and conservation efforts across the Caribbean.

If you would like to support the FAU Queen Conch Lab or share with others, prints are available here: <https://www.queenconchlab.com/shop>

If you would like to learn more about the Queen Conch Lab visit www.queenconchlab.com.

Becky Holt & Megan Davis
Florida Atlantic University



Recruits Corner

Dear Recruits,

We hope everyone has had a wonderful spring season and is prepared for summer. First, we'd like to introduce your new student Co-chair, Brandon Feole. Brandon is a Ph.D. student at Stony Brook University working under Dr. Bassem Allam to investigate the cellular drivers of differential stress response in diploid and triploid oysters with a particular focus on mitochondrial physiology. Thank you to our outgoing Co-chair, Emily Fuqua. We wish her the best for the future!

What a conference we had this year. We had a great time seeing fellow student members who attended the 2026 NSA Annual Conference in Portland, OR. We hope you got the most out of your conference and traveled safely. Thank you to all of our student volunteers who helped with the auction, sales booth, and organizational tasks during the conference. We appreciate all that you do to support our conference.



We would like to encourage any of those who connected with potential new mentors and contacts to keep in touch with them. Those of you who participated in the Mentor-Mentee Breakfast, particularly, please reach out and contact your mentors throughout the year. Building your network is a critical step during your graduate student years.



Congratulations to the winners of the research and presentation awards! We remind all of the students that applications for the five NSA-sponsored research grant awards (Carriker, Castagna, Abbe, Creswell, and Ford) are due **November 1st**. The recipient to each award receives \$1,250 to support research costs. Prior to the deadline, we will be hosting a virtual grant writing training event/informational session. Dates for this event are coming soon so keep an eye on your inbox. The NSA also sponsors travel awards and presentation awards for students at the conferences, so sign up next year. Head to the website for more details (<https://www.shellfish.org/grants-and-awards>), and please reach out to your Co-chairs if you have any questions.

Mark your calendars! Next year, the annual conference will be in Baltimore, Maryland on March 21-25, 2027. We'll keep you up to date on deadlines and news. Follow the NSA on Instagram, @nationalshellfisheries, and we also have a student group on Facebook, "NSA Students."

As always, if you have any questions, ideas, or concerns, please get in touch with your Co-chairs. We are always happy to connect with our student recruits.

Have a great and shellfish-filled summer!

Brandon and Anne

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anne.gilewski@uconn.edu

New Tool Counts Oyster Seed Faster



Researchers at the Louisiana Sea Grant Oyster Research Lab and the Louisiana State University Math Consultation Clinic (MC²) have developed an automated, image-based tool that counts juvenile oyster seed faster and more accurately than traditional methods.

The aim is to replace time-consuming hand-counts with a robust image-segmentation system that identifies and sizes oyster seed from photographs. The team trained an artificial intelligence deep-learning model (StarDist) on thousands of annotated images across two seed sizes, 2-4 millimeter and 4-6 millimeter. Accuracy has reached 90 to 94 percent.

"Manual counting has always been essential, but incredibly tedious and prone to error," said Elizabeth Robinson, Director of the oyster lab. "This tool gives us consistent, reliable numbers in a fraction of the time."

To make the technology accessible to hatchery workers and oyster farmers, the team created a simple interface that returns counts within seconds. Tests show automated counts take one minute, compared to three minutes for manual counting, with far less variability.

For more information, visit: <https://www.laseagrant.org/2026/new-tool/> or contact the lab via email at lasgoysterlab@lsu.edu.

Jimmy Alcivar-Arteaga Student Travel Award

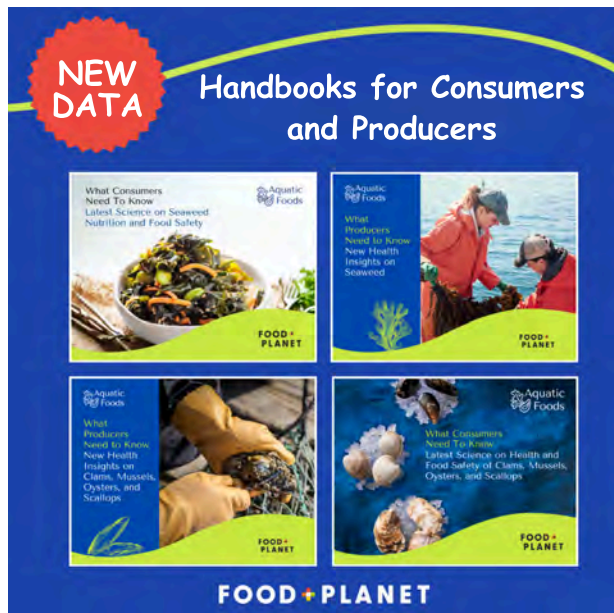


Covers NSA membership, ESRAG membership (www.esrag.org), airfare, shared hotel room, meals, poster printing, and airport-Baltimore-airport transportation costs.

(12 awards available; special consideration given for foreign travel, all students welcome to apply)

Students must present a poster at the NSA meeting and send an abstract (250 words), curriculum vitae, and copy of the visa page in your passport to fucobi@gmail.com as soon as possible.

New Nutrition and Safety Data on Seaweed and Bivalves



Learn about the latest nutrition and food safety science on North American seaweed, clams, mussels, oysters, and scallops. Download your copy at: <https://eataquaticfoods.org/handbooks>

MEMBERSHIP CONTEST WINNERS



The following NSA members recruited 5 new members each and received a free 2026 membership

Acacia Alcivar-Warren
 Miriam Alcivar-Arteaga
 Jimmy Alcivar-Marcillo
 Christian Alcivar-Marcillo
 Caroline DeWitt
 Caroline Warren
 Chinnaiyah Amutha
 Laura Noblecilla
 Judith Benitez
 Freddie Aveiga
 Jennifer Warren
 Nikki Manooy-Vicente

CONGRATULATIONS!

Consider asking a colleague, student, or anyone interested in shellfish to join. Be sure they credit you for joining so you can earn a free NSA membership. There were many entries stating they were recruited by 'an NSA member' or 'advisor', but never provided a name.

Questions, contact: secretariat@shellfish.org

NSA Pacific Coast Section News

It was wonderful seeing everyone at the NSA Conference in Portland, OR. The presentations were excellent and I hope you enjoyed the event as much as I did. Planning is now underway for the Pacific Coast Shellfish Growers Association (PCSGA) and NSA-PCS 80th Annual Conference and Tradeshow which will be held at the Semiahmoo Resort in Blaine, WA, from September 14–17, 2026. The agenda includes a comprehensive lineup of sessions covering topics such as Ocean Conditions, Public Health and Food Safety, and Down on the Farm. With PCSGA celebrating eight decades of shellfish collaborations and NSA-PCS being a partner since 1960, additional fun activities are also being planned. You won't want to miss the 80th Annual Conference celebration!

The call for presentations is now open. Abstracts are due by **May 29, 2026**. You can submit an abstract or propose a workshop at: <https://members.pcsga.org/2025-conference-presentation-submission-form>.

Early-bird registration will be opening soon. For more details, visit: <https://pcsga.org/conference-tradeshow/>.



Student support is available and includes conference registration, accommodation, and travel assistance. Student presenters are also eligible to win a \$200 cash prize and receive a free one-year NSA membership for the Outstanding Student Presentation. Additionally, applications are open for the Ken Chew Research Grant Award (\$1,200) that supports a student research project highly relevant to Pacific Coast shellfish species, with special consideration for projects relevant to shellfish farming practices. **The application deadline for the Chew Award is May 29th** and award details can be found at <https://pcsga.org/conference-tradeshow/>. For questions about student support or the research grant, please contact Laura Spencer (lhs3@uw.edu) or Alex Marquardt (alex.marquardt@oregonstate.edu).

For the latest updates and information about the Pacific Coast Section, visit the NSA-PCS website (<https://www.shellfish.org/pacific-coast-section>) or follow along on social media (<https://www.facebook.com/profile.php?id=100067554640281>)

I look forward to seeing you in Blaine, WA. Have a fun and safe spring!

Sandy Zeiner
 Chair, Pacific Coast Section



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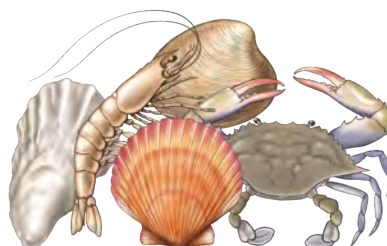
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Upcoming Events

American Malacological Society 2026: Jun. 15-18, 2026.
Syracuse, New York, USA. For more information: <https://ams.wildapricot.org/>

CLAMA 2026 - XIII Congreso Latinoamericano de
Malacologia: Aug. 17-21, 2026. Cartagena, Colombia.
For more information: <https://asocoma.co/>

International Conference on Molluscan Shellfish Safety:
Sept. 6-11, 2026. Exeter, England, UK. For more
information: <https://www.icmss.net/>

PCSGA/NSA-PCS 80th Annual Conference and
Tradeshaw: Sept. 14-17, 2026. Semiahmoo Resort,
Blaine, Washington, USA. For more information: <https://pcsga.org/conference-tradeshaw/>

13th International Conference on Fisheries &
Aquaculture: Sept. 29-30, 2026. Miri, Sarawak,
Malaysia. For more information: <https://aquaconference.tiikm.com/>

International Shellfish Restoration Society: Oct. 4-7,
2026. Shelton, Washington, USA. For more information:
<https://www.shellfish-society.org/icsr2026.html>

International Abalone Symposium: Nov. 2-5, 2026.
Long Beach, California, USA: For more information:
<https://www.internationalabalonesociety.net/>

7th World Conference on Marine Biodiversity:
Nov. 17-20, 2026. Belgium. For more information:
<https://www.wcmb2026.org/>

119th NSA Annual Meeting: Mar. 21-25, 2027.
Baltimore, Maryland, USA. Watch for details.

120th NSA Annual Meeting (Triennial): Feb. 7-11,
2028. Seattle, Washington, USA. Watch for details.

If you would like to announce a meeting, conference, workshop, or
publication of interest to NSA members, please contact the *QNL* Editor,
Steven Allen (stevenmallen@gmail.com).

