

Noreen Blaschik Favreau, *QNL* Associate Editor
University of Connecticut
Marine Sciences Department
1080 Shennecossett Rd
Groton, CT 06340 USA
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Upcoming Events

Aquaculture America 2023: Feb. 19-22, 2023. New Orleans, Louisiana. For more information: www.was.org

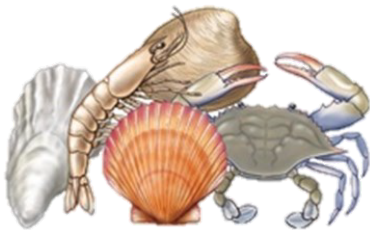
11th International Abalone Symposium: Feb. 27-Mar. 2, 2023. For more information: <https://www.internationalabalonesociety.net/>

115th NSA Annual Meeting: Mar. 26-30, 2023. Baltimore, Maryland. For more information: www.shellfish.org

23rd International Pectinid Workshop: Apr. 19-25, 2023. Douglas, Isle of Man. For more information: www.internationalpectinidworkshop.org

116th NSA Annual Meeting: Mar. 22-26, 2024. Charlotte, North Carolina. For more information: www.shellfish.org

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



President’s Message



Last month, as a participant in RAGBRAI XLIX, I rode my bicycle across Iowa from the Missouri River side to the Mississippi River side in seven days. It was quite an experience and the weather was perfect—cool days and a few nights of temperatures in the low 50’s. Quite a nice change from August in Louisiana. On the way back to the sultry South, I stopped for the night in Fort Smith, Arkansas and found myself at the Fish City Grill. Unexpectedly, they had a raw bar serving an assortment of cooked and raw oysters. This night, they had on offer raw oysters from the East Coast, West Coast, and Gulf Coast. I introduced myself to the manager on duty and asked about the species of oysters and their sources, but he could not tell me much (the owner of the place was on vacation). At any rate, this restaurant gets fresh seafood from across the country and patronizes small seafood businesses. So, next time you find yourself in NW Arkansas with an envie for oysters, you know where to go. The point of this story is how much has changed in the past 50 years in the seafood industry. When I was a lad, it was unusual to be able to partake of fresh fish or shellfish. Instead, we ate a lot of beef and potatoes with the occasional meal of fish sticks thawed in the oven. Now, seafood is available nearly everywhere at any time of year. While we tend to take this for granted, it would not have happened without the work of researchers, regulators, entrepreneurs, aquaculturists, and fishermen. The NSA provides a big tent where all of these people can interact and exchange information. This is what our annual meeting is all about. Next year’s meeting in Baltimore promises to be a great opportunity for networking and education. Keep in mind that the NSA is only as strong as its members, so all of us should be paying our dues, submitting papers to the *JSR*, presenting your science at the meeting, thinking about paper sessions for future meetings, and recruiting new members. In addition, we are always looking for people to serve as officers—if you are so inclined, make yourself known to the cabal currently in charge. You might even get to sit at the big kid’s table during the business luncheon.

Lewis Deaton, *President*

RENEW YOUR DUES

Reminder emails will begin October 1st

Recruit 5 new members and earn a free 2023 membership

Questions, contact Secretariat@shellfish.org

Congratulations to the following members who earned a free membership:

Gulnihal Ozbay
Weidong Bao
Maria Antonia Minea
Andreea Fira
Acacia Alcivar-Warren

In this issue:

- Annual Meeting Update
- NSA Award Deadlines
- Castagna Student Research Grant Update
- 140,000 Mollusc Specimen Donation
- Chesapeake Oyster Science Symposium

Abstract Formatting Details

The portal is open - submit your abstract today!
(www.shellfish.org)

Bold, left alignment, not capitalized

Management of biofouling in shellfish aquaculture

Sandra E. Shumway^{1*}, William C. Walton², Stephan Bullard³, Steven W. Fisher⁴, Charles Adams⁵, and Robert B. Whitlatch¹

¹University of Connecticut, Department of Marine Sciences, 1080 Shennecossett Road, Groton, CT 06340

²Co-author affiliation address – full/complete mailing address

³Co-author affiliation address – full/complete mailing address

⁴Co-author affiliation address – full/complete mailing address

⁵Co-author affiliation address – full/complete mailing address

sandra.shumway@uconn.edu

Biofouling poses an ongoing problem for aquaculture operations and, in particular, for shellfish farmers. Fouling of the structures and the farmed organisms increase maintenance costs, slow growth, reduce marketability and, in extreme cases, cause mortality of the farmed animals. The goal of this session is to bring together industry members and researchers to share knowledge, exchange ideas and guide timely and targeted research. Industry members are strongly encouraged to participate in these discussions as an essential means of both focusing research efforts currently underway and of keeping shellfish farmers informed of new efforts to thwart biofouling.

To this end, the session will include: 1) a presentation of a national survey of shellfish farmers, identifying costs, problem species, current means of mitigation and control and areas of concern; 2) an update on the current status of development and field testing of environmentally friendly anti-fouling coatings for aquaculture gear, and; 3) a presentation on the problems posed by ascidians.

These brief presentations will lead into a cooperative discussion among audience and panel members, identification of problems, discussion of various management methods and assimilation of information for future research and mitigation strategies.

Authors in **bold**,
* by the presenting
author, numerical
superscripts,
single-spaced,
presenting author's
email only, left
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Single-spaced,
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ENTIRE abstract single-spaced, Times New Roman font, size 12
NO figures or keywords
250 word limit

The file name of your uploaded abstract must be in the following format using the name of the PRESENTING AUTHOR: **first name.last name.doc** (e.g. thurlow.nelson.doc). If you are submitting more than one abstract, append a numeral after your last name for subsequent submissions (eg. thurlow.nelson2.doc).

If changes need to be made to your abstract after it has been submitted,
contact the Secretariat (secretariat@shellfish.org).

DO NOT submit a revised version via the portal.

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

EXCOM Members

Lewis Deaton
President
815 Genevieve Dr
Lafayette, Louisiana 70503
Email: lewis.deaton@lusfiber.net

Aswani Volety
President-Elect
UNCW
601 South College Rd
Wilmington, North Carolina 28403
Email: voletyak@uncw.edu

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

Jay Parsons
Treasurer
Aquaculture, Biotechnology & Aquatic
Animal Health Sciences
Fisheries and Oceans Canada
200 Kent Street, Stn. 12E241
Ottawa, ON Canada K1A 0E6
Phone: (613) 990-0278
Email: Jay.Parsons007@gmail.com

Kay McGraw
Secretary
2943 Briar Lea Loop SE
Olympia, WA 98501
Email: kmcgraw5@earthlink.net

John Scarpa
Past-President
Chair, Past-Presidents, Elections, Awards
Committee
Texas A&M University - Corpus Christi
Dept. of Life Sciences
6300 Ocean Drive (Unit 5800)
Corpus Christi, TX 78412
Phone: (361) 825-2369
Email: pastpresident@shellfish.org

Steven M. Allen
Senior Past-President
Editor, *NSA Quarterly Newsletter*
Schiller Coastal Studies Center
240 Bayview Rd
Orr's Island, ME 04066
Phone: (443) 994-5164
Email: sallen@bowdoin.edu

Louis Plough
2020-2023 Member-at-Large
Chair, Resolutions Committee
University of Maryland Center for Environ. Sci.
Horn Point Laboratory
2020 Horns Point Rd
Cambridge, MD 21613
Phone: (410) 221-8474
Email: lplough@umces.edu

Maureen Krause
2021-2024 Member-at-Large
Dept. of Biology
114 Hofstra University
Hempstead, NY 11959-1140
Phone: (516) 463-6178
Email: maureen.k.krause@hofstra.edu

Stephen Geiger
2022-2025 Member-at-Large
Florida Fish & Wildlife Research Inst.
100 8th Avenue S.E.
St. Petersburg, Florida 33701
Email: steve.geiger@myFWC.com

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

John N. Kraeuter
Chair, Audit-Budget-Finance Committee
1 Hills Beach Road
Biddeford, ME 04005
Email: kraeuter@hsrl.rutgers.edu

Sandy Zeiner
Chair, Pacific Coast Section
Northwest Indian Fisheries Commission
6730 Martin Way East
Olympia, WA 98516
Phone: (360) 528-4370
Email: szeiner@nwifc.org

Other Contacts

Roger Mann
Co-Chair, Publications Committee
Virginia Institute of Marine Science
P.O. Box 1346
Gloucester Point, VA 23062
Phone: (804) 684-7360
Email: mann@vims.edu

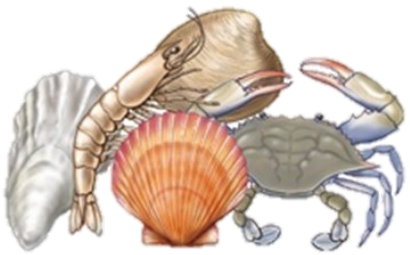
Juliana Harding
Co-Chair, Publications Committee
Coastal Carolina University
Department of Marine Science
P.O. Box 261954
Conway, South Carolina 29528-6054
Email: jharding@coastal.edu

Peter Kingsley-Smith
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

Hannah Collins
Recruits, Co-Chair
University of Connecticut
Dept. of Marine Sciences
1080 Shennecossett Rd
Groton, CT 06340
Email: hannah.i.collins@uconn.edu

Fiona Boardman
Recruits, Co-Chair
University of Washington
Department of Biology
Box 351800
Seattle, WA 98195
Email: fboard@uw.edu

Noreen Blaschik Favreau, *Secretariat*
Associate Editor, *NSA Quarterly Newsletter*
Webmaster
University of Connecticut
Dept. of Marine Sciences
1080 Shennecossett Rd
Groton, CT 06340
Email: secretariat@shellfish.org



Recruits Corner

Fellow Recruits,

Welcome back to the fall semester! We hope you enjoyed the summer season and stayed cool. As we enter the beginning of the academic year, we wanted to highlight some upcoming events and deadlines.

The 115th Annual Meeting will be held at the Baltimore Marriott Inner Harbor at Camden Yards in Baltimore, Maryland, from March 26 - 30, 2023. Check the webpage for upcoming information regarding special sessions and student events! The abstract submission portal is open and abstracts are due by **December 15th**. Students presenting at the



conference are also strongly encouraged to apply for Student Endowment Fund Travel Awards. Travel awards are given in the form of either shared lodging or registration waivers and are awarded based on a lottery system. The deadline to apply is **December 15th**. For more information check out the NSA website: <https://www.shellfish.org/sef-student-presentation-and-travel-awards>

We also highly encourage you to apply for the student research grants. The Melbourne R. Carriker Student Research Grant provides support a student research project in any area of shellfisheries. The Michael Castagna Student Grant for Applied Research supports a research project in applied shellfisheries, and the George R. Abbe Student Research Grant awards funds a research project in crustacean biology and fisheries management. The R. LeRoy Creswell Award for Outreach and Education supports student merit in any of the following categories: recognition of an outstanding oral or poster presentation on outreach/extension at the annual NSA conference; support of outreach/extension costs incurred by a student; recognition of an exceptional outreach/extension outcome by a student within the first year of their post-graduate work. Applications for all three awards are due **November 1st** annually. Additional information can be found on the NSA page: <https://www.shellfish.org/student-research-grants>. All grants provide a \$1250 cash award.



Finally, we'd like to remind students to join the Recruits Facebook page and follow NSA on Instagram (<https://www.facebook.com/groups/2216454881732029> and @nationalshellfisheries). This is a great way to stay up-to-date on important announcements and information about conferences!

As always, email your Recruit Co-chairs Hannah (hannah.i.collins@uconn.edu) or Fiona (fcboard@uw.edu) with any questions, ideas, or concerns.

Enjoy your summer!

Hannah and Fiona

NSA AT THE MOVIES

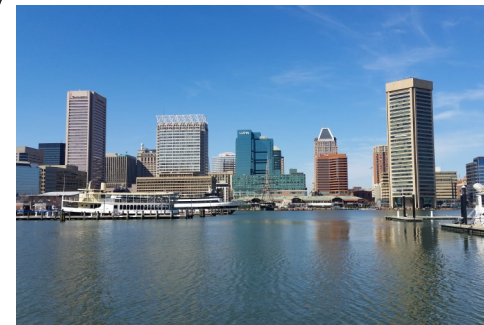


Do you have a shellfish-related video or movie you would like to share? Contact Sandy (Sandra.shumway@uconn.edu)

Movies will be playing on a loop throughout the day during the conference - pop in when you have time!

BioOne Video Showcase

BioOne is now piloting video content to accompany published articles. If you have a video to compliment your research, let us know. This feature is planned to launch in the fall, but here is a sneak peak in the [June BioDigest](#).



All systems are 'go' for Baltimore! We are anticipating a packed program, strong attendance, and lively activities to celebrate our first time back together in four years. You can check the program content on the NSA web page (www.shellfish.org) and there is still time to add your session or suggestions to the mix. [The Marriott Inner Harbor](#) promises to be a perfect venue with an ideal layout for our needs, complete with a 'wine and beer wall' and brick oven pizza restaurant in the lobby. Some of you will remember Pat Palmere and Chef Jerome Talley from our last meeting in Baltimore over a decade ago. Markus Addison and Michael Ostendorf have joined them (see photo below: seated M.A. standing M.O., P.P. and J.T.) and this very enthusiastic and talented team is already working diligently to make our meeting a success.

Please consider contributing a film for our **NSA at the MOVIES** presentations - these will be shown continuously throughout the conference so you can stop in any time you have a chance.

The **SCALLOP GALLOP** will take place under the watchful eye of race organizer President Deaton. Watch for details.

Reserve your hotel room early and **PLEASE STAY AT THE MARRIOTT - THE CONFERENCE HOTEL**. It is very important that attendees book at the Marriott. We have negotiated extremely competitive prices (Single, Double, Triple rates). Use of the hotel meeting space, facilities, and rooms for students depend upon room bookings. You can book directly here: <https://book.passkey.com/e/50358179>. Book early! The conference rate expires on March 3rd, 2023 and the room rates will then increase to +\$200/night.

The **ABSTRACT DEADLINE is DECEMBER 15, 2022**. Submit your abstract now (www.shellfish.org)! See page 2 for abstract instructions).

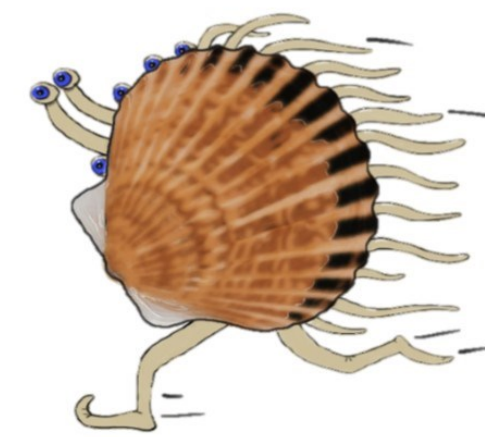
If you are willing to help judge student presentations, please check the box on the Registration or Abstract form or contact Peter Kingsley-Smith directly (kingsleysmithp@dnr.sc.gov).

Students: Remember to enter the lottery for room and registration waivers when you submit your abstract. There is a box to tick on the abstract form. Questions: Missy Southworth (melsouth@vims.edu)

Don't forget your **AUCTION** items. Bring them to the meeting or, if you cannot attend, send ahead to Sandy Shumway (address on back of the *Newsletter*) before March 15th.

Baltimore promises to be a grand affair, see you all there!

The Conference Management Team



2021 Michael Castagna Student Research Grant Update

Awardee: Elizabeth Bouchard
Rutgers University

“The effect of oyster aquaculture on the distribution of horseshoe crab eggs in Delaware Bay and its implications for the threatened rufa red knot”

Delaware Bay hosts the largest spawning population of horseshoe crabs (*Limulus polyphemus*) in the world. Their abundant eggs laid on the beach are a critical food resource for the rufa red knot (*Calidris canutus rufa*). This shorebird has one of the longest annual migrations in the animal kingdom, traveling as far as the southernmost tip of South America to the central Canadian Arctic, where they breed each summer. Along this route, food resources at stopover sites are essential for survival and successful reproduction. A principal stopover site is Delaware Bay, where each spring 50-80% of the population rests and refuels on their northward migration. By eating primarily horseshoe crab eggs in the Delaware Bay, rufa red knots can almost double their bodyweight in less than two weeks. A rapid decline of rufa red knots in the early 2000s led to a ‘threatened’ listing under the U.S. Endangered Species Act in 2015. Despite conservation prioritization, bird numbers have been stagnant since 2013.

A local concern in the Cape Shore region of the Delaware Bay is whether eastern oyster (*Crassostrea virginica*) farming may be hindering red knot recovery. Rack-and-bag oyster farms are situated along 3.5 km of tidal flats adjacent to horseshoe crab spawning and shorebird foraging habitat in Delaware Bay. The wide tidal flats provide ample space for oyster farming and reduce the potential for farms to disturb birds. Nevertheless, the proximity of these species and oyster farming has caused friction among conservationists and oyster farmers, both of whom want to sustain a healthy ecosystem.



This project addresses this conflict by investigating a persistent knowledge gap concerning the positive, negative, or neutral impact of oyster aquaculture on the distribution of red knot foraging resources. Previous research showed that red knot

foraging behavior was not impacted by the presence of farms, although the probability of shorebird presence was reduced by 2-7% while farms were actively tended. Another study found that oyster farms did not impact horseshoe crab access to spawning beaches; however, how the farms may impact the distribution of horseshoe crab eggs or other red knot prey has not yet been addressed.

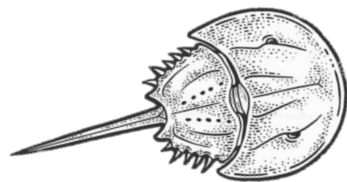
The project will assess how potential prey resources are distributed relative to oyster farms. The importance of horseshoe crab eggs in the red knot diet is well-established, yet little is known about alternative prey resources in Delaware Bay, which may be key to their survival as climate change impacts the synchrony of shorebird migration and horseshoe crab spawning. Red knots are known to eat bivalves, gastropods, and polychaete worms elsewhere and similar species are also present in Delaware Bay. As such, horseshoe crab eggs, bivalves, gastropods, and polychaete worms were included in the study as potential prey resources to inform the management of an important coastal industry (oyster farming) and the conservation of a threatened species (rufa red knots).

In May and June 2021, 1,860 sediment core samples were collected from four paired farm-control plots (90 m x 180 m) across the 3.5-km stretch of tidal flats in the Cape Shore region of New Jersey where oyster farming is permitted. The cores (2-cm deep by 373 cm²) were collected using a stratified random sampling design. Each core was processed and examined in the lab to identify and enumerate horseshoe crab eggs and invertebrates in each sample.



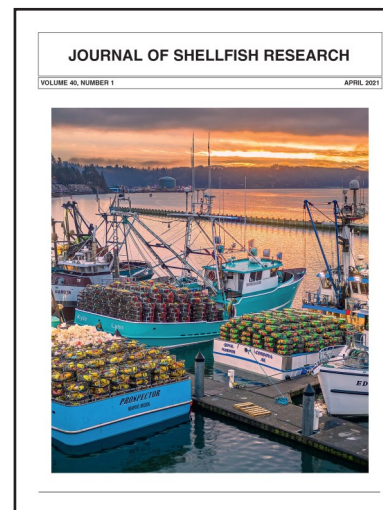
Results to date show that potential red knot prey resources vary across the intertidal zone (ANOVA, p-value < 0.05). Horseshoe crab eggs were the most abundant prey type, and they were concentrated on the beach and rare across the tidal flats. Bivalves, gastropods, polychaete worms, and other potential prey were more evenly distributed but often more abundant on the tidal flats than the beach. These findings suggest that red knots foraging on tidal flats may be consuming these other potential prey types as horseshoe crab eggs were virtually absent across the flats.

Paired t-tests showed that prey abundances were similar in farm and control plots, regardless of intertidal zone for each prey type. These findings indicate that oyster farms do not affect the distribution and abundance of rufa red knot prey resources. The next step is to integrate these results with concurrent shorebird survey data to assess the overall impact of aquaculture on red knot foraging through farm avoidance or changes in prey distribution. I am looking forward to repeating this fieldwork in May 2022 to solidify our results and address lingering questions.



A Note from the Editor

The *Journal of Shellfish Research* is your society journal – but hard to tell that from the authorship! A recent survey of manuscripts published in 2021 and 2022 shows that for the 119 papers published, only 21 (18%) of the first authors are members of NSA. Of all authors, 53 (44%) are current members, 41 are expired members, and 73 (61%) are non-members. While these numbers reveal a pool of potential new members for recruitment, they also show that our members are not publishing in the *Journal*. The *JSR* receives wide distribution via BioOne and, unlike papers published with many journals, you are welcome to post and share your papers freely. The review time is fast and often papers appear in print within months of submission. The *Journal* is only as good as the contributions, please consider submitting your next publication.



Sandy Shumway

**The Journal of Shellfish
Research was awarded its 13th
APEX Award for Publication
Excellence!**



NSA Pacific Coast Section News Greetings from the Pacific Coast!

A quick reminder the PCSGA/NSA-PCS Annual Conference and Tradeshow will be in-person at the Wenatchee Conference Center, Wenatchee, WA. The conference is scheduled for September 20-22, 2022. The agenda is full of great presentations in exciting sessions like European Green Crab, Ocean Conditions, Pest Management, and Down on the Farm. The Keynote speaker this year is Dr. Yoshitaka Ota, University of Washington, who will inspire us “To protect the oceans and protect those that live within nature, now and into the future”. If you would like to attend, the agenda and registration information can be found at: <https://pcsga.org/events/annual-shellfish-conference-tradeshow/>. If you need any more information on the conference, please contact NSA-PCS Chair Sandy Zeiner (szeiner@nwifc.org).

Please join our community online. The NSA-PCS Twitter feed and Facebook page are your best resources for news and information about the Pacific Coast Section, events and annual meetings. You can follow NSA-PCS on Twitter: @nsapcs and on Facebook: <https://www.facebook.com/pages/Pacific-Coast-Section-of-the-National-Shellfisheries-Association/1438569826443936>.

I look forward on seeing you in Wenatchee, WA.

Sandy Zeiner
Pacific Coast Section Chair



SAVE THE DATES

116th NSA Annual Meeting:
March 22–26, 2024, Charlotte, North Carolina

117th NSA Annual Meeting (Triennial):
To Be Determined

Climate Change is an Existential Threat. Congress Needs to Treat it Like One

By: Bill Mook, Mook Sea Farms

When climate talks broke down in Congress last week, Americans were quick to lay all of the blame on Joe Manchin. By leveraging the future of our entire planet as a bargaining chip to negotiate his own pet projects and to line his own pockets, the West Virginia Senator is certainly at fault. But Manchin is hardly the only culprit. Equal responsibility falls to our 50 Republican Senators, all of whom have refused to consider the common-sense provisions on the table. Instead, they have chosen to treat climate change not like the existential threat that it is, but as a petty partisan issue. Unless our elected representatives can put our nation's and our world's future above party politics, we risk catastrophic environmental challenges, mass extinction, and unimaginable suffering.

Shellfish farms like mine are already at war with runaway greenhouse gas emissions. To combat ocean acidification, we now buffer the seawater for larval cultures in our hatchery. To counter more intense storms and higher tides, we must overhaul mooring systems that hold millions of oysters in floating cages on our leases. To protect consumers from runoff-related bacterial pollution we isolate harvested oysters in a land-based facility before big rainfall events. And to ensure consumer safety from *Vibrio* bacteria, which thrives in warm waters, we now harvest our oysters and move them to mechanical refrigeration within two hours.

All of these counter measures cost money – a lot of money. And we aren't alone. Other shellfish farms across America are being hammered with these same problems, along with extreme heat waves and influxes of freshwater that prove deadly for their crops. Slower moving, stronger hurricanes are not only killing crops, but are also wiping out wharves, gear, and shoreside facilities.

This crisis will only get worse. Within the next three decades, Maine is expected to experience days of extreme heat four times more frequently and see up to 1.8 feet of sea level rise. By 2050, Maine's lobster population could fall by up to 50 percent. Other shellfish species will likely see similar declines.



Senator Whitehouse, Sam Klein (PCSGA Stewardship Officer), Sarah Malinowski (Fishers Island Oyster Co.), Sally McGee (SGCC Coordinator), and Robert Rheault. Photo credit: Sally McGee.

Even if you've never eaten shellfish, these impacts should concern you. The millions of pounds of oysters, clams, and mussels we grow every year bolster local economies, create jobs, and feed our communities, while also improving the health of our marine ecosystems by filtering the water and providing a habitat for hundreds of other species. As shellfish aquaculture is jeopardized by climate change, so are its social, environmental, and economic benefits.

The difficulties we're confronting come as no surprise; they have all been predicted (with amazing accuracy) by climate scientists for decades. But rather than heed their warnings, our leaders have kicked the can down the road for some future generation to deal with. There is no more road left. At the current 1.1 degrees Celsius of warming, the consequences are already devastating, and every fraction of a degree of additional warming will make the impacts much more costly and deadly. But we have the tools we need to secure a liveable future – and just barely enough time to implement them.

That's why shellfish growers from across the country are demanding that our legislators put politics aside and meet this crisis with urgency and unity. Any lawmaker – Republican or Democrat – who blocks bold climate action or only supports half measures shares culpability for the climate crisis with the oil companies who, like tobacco companies, have long been aware of the harm they are causing but have prioritized their short-term profits over the greater good. By developing a comprehensive plan to rapidly transition to clean energy, support sustainable food production, protect natural ecosystems, and invest in resilience, Congress can take the first step towards ensuring that our family-owned businesses – and the communities, ecosystems, and food systems that depend on them – can survive and thrive.

Bill Mook is the founder and president of Mook Sea Farm in Walpole, Maine, and a founding member of the Shellfish Growers Climate Coalition. Editorial published by Portland Press Herald. July 28, 2022.

Award Nominations Deadline: November 1st

Nominations for:

- Honored Life Member Award
- David H. Wallace Award
- Neil Bourne - Ken Chew Award
- Paul Galtsoff Industry Award

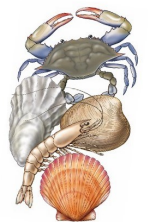
Student Research Grant Awards:

- Melbourne R. Carriker Award
- Michael Castagna Award
- George R. Abbe Award
- R. LeRoy Creswell Award

Visit www.shellfish.org for specific award descriptions and instructions



Send nominations to the
Chair, Past-Presidents Committee:
John Scarpa
pastpresident@shellfish.org

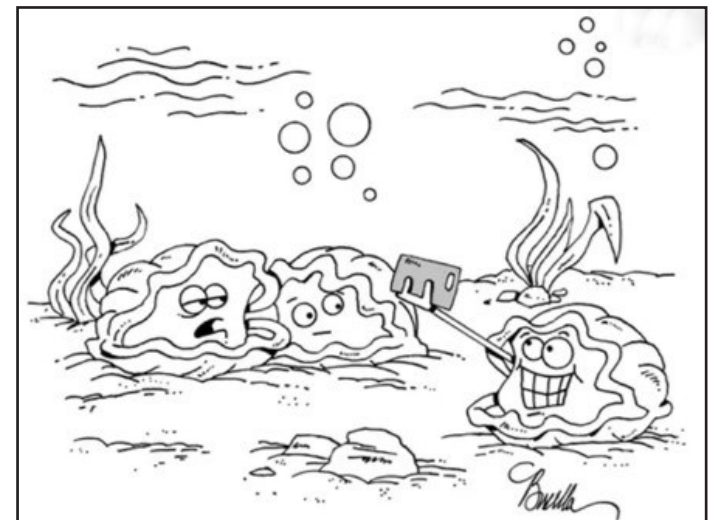


Student Grant Award applications are available at: www.shellfish.org



New Workshop for NSA Conference

Public science literacy has never been more important, or more threatened. The good news is that modern communications tools make it easier than ever before in human history for experts to share their expertise with the public, media, and policymakers. In this half-day, hands-on workshop, you'll learn basic principles and advanced tips and tricks for public science engagement, focusing on crafting your message and using some social media tools to share it with the world. Dr. David Shiffman is one of the most-followed scientists in the world on social media, and is an award-winning expert in public science engagement. He has given this workshop to hundreds of scientists, managers, conservation advocates, and practitioners on five continents.



"These kids and their shellfies..."

Vancouver Island Man Donates 140,000 Mollusc Specimens to Biodiversity Museum

By: Chris Bush, Saanish News

Bill Merilees, a retired British Columbia (B.C.) Parks regional information officer, collected mollusc shells ranging from large clams to tiny snails found on the B.C. shorelines for nearly 50 years. In that time, he amassed and catalogued more than 140,000 shells, and possibly the most extensive collection of micro molluscs ever gathered from the B.C. coast.

Merilees's interest in molluscs was sparked when he was five years old by his father who gave him a clam shell, but his hobby of collecting shells took off after he moved to Nanaimo in 1978. "I really had a glorious opportunity, because my job with B.C. Parks took me up and down the Island, all over the place," he said. "I'd have this spoon and I'd find a nice rock at low tide and scrape all the slime and goop off it, put it into a plastic bag and bring it home and put it in [my wife's] freezer, which of course, wasn't very popular." Merilees would thaw the samples, screen out shells between one and five millimeters in size and then, with a pair of watchmaker's forceps, sit for hours peering through a microscope and picking out the "micro molluscs" which he'd preserve in vials.

"This came about in an interesting way," Merilees said. "What the Canadian Wildlife Service were trying to find out was what some of our shorebirds are feeding on. They'd analyze the stomach [contents], but they had nothing to identify the little snails they found, so I started gravitating to getting smaller, smaller and finally ended up getting down to what I call micro molluscs." Merilees gathered specimens from Vancouver Island, Haida Gwaii and Washington state, accompanied at times by his friend, marine biologist, Rick Harbo.

Merilees's collection, stored in wooden cabinets he built, fills a bedroom in his Departure Bay-area home. Vials containing micro molluscs fill just one of dozens of cabinet drawers, yet account for about 126,000 of the estimated 140,000-specimen collection. Each sample is accompanied by particulars, such as date, time, location, tide conditions, surface type (rock or sand), size of scraping, number of species and how many of each were found. He also used methods to preserve specimen DNA, which might one day help further species identification efforts.

"People would say, 'you silly bugger,' and I'd say, 'you're quite right, I'm bloody crazy, absolutely stupid,' but the fact is nobody in B.C. has ever done anything quite like this..." he said. "What you've got here is a snapshot in time of a particular day, particular tide, season ... You could go back to these areas in the future and you can do a comparison and no one has ever, to my knowledge, in British Columbia or even on the west coast of North America, done something quite like that."

Merilees said some of his specimens are new to the field of molluscan study, but haven't been formally recognized. Samples were sent to James Hamilton McLean, a malacologist and former curator at the Natural History Museum of Los Angeles County, who included some of them in a 2,000-page monograph he compiled. Unfortunately, McLean died in 2016 before it could be published.

Merilees, now 81, stopped making collection trips in 2020, but he hopes his donation, bound for the University of British Columbia's Beaty Biodiversity Museum, will become a learning resource for future biology students. "There's so many interesting species in here – some not described – that it's going to make really cool research projects for a lot of students at UBC too," Byers said.

Sheila Byers, a marine biologist and former interpreter for the Beaty museum, and Colin MacLeod, a zoologist with the UBC Biodiversity Research Centre and museum curatorial assistant, spent time packing up Merilees's collection. It will be stored in isolation for three weeks to prevent any potential insect infestation from escaping into the museum before it is catalogued into the museum's online database and some of it will be put on display. Merilees's collection, the two scientists said, is important for making comparisons between species in collection locations 50 years ago versus today and to help people understand the huge diversity of local marine life. "A lot of people don't realize how beautiful and diverse local species can be, so I think this collection gives a huge opportunity to understand their own marine life by this hugely diverse collection," Byers said. She said Merilees did an "amazing job" of record-keeping.

"Another key thing is just the amazing amount of data Bill has associated with these specimens," MacLeod said. "In terms of climate change or any large-scale change to the ocean, having a date of collection associated means that we can go back to that site and collect again and maybe that species will have disappeared as ranges shift, caused by climate change or harvesting ... so just having these reference points back in time are invaluable for museums and also for conservation biologists who want to record how things are changing."

Abstracted from Saanish News, July 25, 2021.



Bill Merilees with some of his 140,000-specimen collection that he donated to the University of British Columbia Beaty Biodiversity Museum. (Photo credit: Chris Bush/News Bulletin)

North Carolina's Oysters Come Out of Their Shell

Oyster trail aims to give the farmed shellfish industry a needed boost

By: Emily Cataneo, Hakai Magazine

When it comes to seafood, North Carolina has historically been better known for blue crab and fish such as flounder, mackerel, and bass. But the fishing sector has struggled over recent decades due to a complex swirl of factors. Wild fish stocks have dwindled, as they have in so many places around the world, leaving coastal communities with less seafood and fewer jobs. Much local fish is exported out of North Carolina to other higher-paying US markets; coastal dwellers and visitors often end up eating fish imported from other countries instead, which in turn undercuts the price of any locally caught fish that might be available. Some fishers claim that strict state and federal regulations designed to conserve stocks undermine their livelihoods even more. As a result, the number of commercially licensed fishers in the state who actually used their licenses declined by about half between 2000 and 2021.

Recognizing that the industry needed a higher profile, prestige, and support, the North Carolina Coastal Federation, North Carolina Sea Grant, and North Carolina Shellfish Growers Association came together to build a tourism offering highlighting oyster growers and outlets. The initiative, known as the North Carolina Oyster Trail, launched in May 2020 and primarily consists of an online map that highlights all 65 participating restaurants, farms, festivals, and markets, so that travelers can easily plot a self-directed route between them. Participating businesses also fly a blue-and-white flag, which bears a circular logo incorporating an oyster shell and the name of the trail, and cross-promote one another through informal referrals.



North Carolina Oyster Trail flag. Photo credit: Emily Cataneo

clumps in the wild; or dine at a restaurant; attend a culinary event; or learn to shuck.

The trail taps into existing tourism trends (think wine and ale trails and small-farm tourism) while also contributing to a nationwide surge in mariculture tourism. Virginia and Washington State both have oyster trails, and Maine recently launched a similar initiative.

When you're dealing with climate change and the vicissitudes of the fishing industry, diversification is key, says Barbara Garrity-Blake, the president of NC Catch, a non-profit that promotes local seafood consumption. The farmed oyster industry provides fishing communities with another product to sell. And the trail helps oyster farmers diversify within their own businesses.

Abstracted from Hakai Magazine, August 9, 2022.

CHESAPEAKE OYSTER SCIENCE SYMPOSIUM

SEPTEMBER 29, 2022

VIRTUAL REGISTRATION -
[HTTPS://EVENTS.CBF.ORG/COAS-22](https://events.cbf.org/coas-22)

The Chesapeake Oyster Alliance (COA) is hosting the 2nd Annual Chesapeake Oyster Science Symposium where the fields of oyster restoration, aquaculture, and research converge to explore cutting-edge innovation and collaboration in the oyster world.

The Symposium will be held via Zoom on **Thursday, September 29th** from **10:30 am - 4:00 pm EST**. Registration is free for COA partners and \$10 for non-COA partners.

There will be an all-star lineup of oyster experts, post-docs, faculty, and industry practitioners for our second Symposium. Multiple panel discussions featuring more than 20 speakers are intended to offer succinct presentations and ample Q&A around each topic. The Symposium will also feature a round of lightning-talks by young scientists and early career professionals (attendees may self-select to present when they register).

Topics to include:

- Emerging Technology and Techniques in Aquaculture and Restoration
- Optimizing Oyster Restoration Success
- Ecosystem Services of Oyster Reefs
- Gaps and Future Needs in Oyster Research
- Co-locating Oyster Reefs with Other Species and Restoration Efforts
- Planning for the Future of Oyster Restoration, Aquaculture, and Science
- Ecological Benefits of Oyster Farms
- Lightning Round of Current Graduate Studies in Oysters

If you are a graduate student and would like to make a 5-7 minute presentation on your research during the Lightning Round, you may provide a brief description of your research during registration. Student abstract submissions are due by **September 9th**.

[Registration is open.](#) Questions can be directed to Tanner Council (tcouncil@cbf.org).

