

EAST COAST SHELLFISH GROWERS ASSOCIATION



The East Coast Shellfish Growers Association represents over 1,500 shellfish farmers from Maine to Florida. These proud stewards of the marine environment produce sustainable, farmed shellfish while providing thousands of jobs in rural coastal towns.

The ECSGA informs policy makers and regulators to protect a way of life.

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The Mouth of the Bay Let Us Give Thanks: 2020 Is Almost Over



Executive Director
Bob Rheault

As winter's chill begins to set in I think it is safe to say that most of us were not feeling very thankful this Thanksgiving. With COVID spiking, restaurants suffering and markets still reeling, just about everyone is ready to bid good riddance to 2020.

Unfortunately, despite the soaring stock market and rosy predictions for multiple vaccines, 2021 may not be much better. The National Restaurant Association estimates that six months into the crisis, one in six restaurants, totalling 100,000 establishments nationwide, had "closed either permanently or long-term," according to a new survey released by the association on Sept. 14 (restaurant.org/news/pressroom/press-releases/100000-restaurants-closed-six-months-into-pandemic). Many establishments that are trying to hold on are struggling with limited seating and a customer base afraid of dining out. Few analysts are

predicting a rapid recovery until a majority of the population gets vaccinated, hopefully by sometime next summer. With markets suppressed, sales will continue to suffer, so hunker down and try to stay afloat. Better days lie ahead.

One bright spot this year was government relief programs for growers. Those of you who were able to qualify for COVID relief payments (either through CARES Act funds allocated for NOAA fisheries assistance or the USDA's Coronavirus Food Assistance Program, CFAP2) will hopefully be able to keep the lights on for another year. If you have not yet applied for CFAP2 you only have until December 11 to get to your Farm Service Agency office and submit your information in order to collect assistance roughly equal to 10 percent of your 2019 sales.

The ECSGA and dozens of our partner organizations worked long and hard for many months to make shellfish growers eligible for CFAP2 funding. Despite all our hard work supporting the community, half of our members have not yet paid their 2020 dues. Assuming that Congress allocates more relief funds next year, we may have even more work ahead of us advocating for your interests. So if you were able to cash a nice relief check, I hope you will express your thanks by sending in your dues.

The survival of the ECSGA hangs in the balance.

Member Profile: Orchard Point Oyster Co.

by Robert Rheault,
ECSGA Executive Director

For this month's member profile feature I reached out to Scott Budden, who along with partners Hal McBee Jr. and Brian Connelly, owns Orchard Point Oyster Company in Stevensville, Md. Scott had been helping me make some political connections, trying to get some traction on our Jones Act exemption legislation, when the COVID crisis hit. After following his efforts on Instagram, where he described how the company was trying to pivot to online sales, I thought I would try to dig a little deeper to find out how they made that work.

Scott started his oyster farm about six years ago after feeling discontent in his job as a financial analyst. Having grown up on Chesapeake Bay, he was yearning for something different: a job that didn't involve making money for rich people. After spending

some time learning from other growers and trying to start a farm while still working his day job, he eventually made the leap. Orchard Point now employs two full-time and three additional seasonal employees tending to 600-plus floating and 400-plus bottom cages. Orchard Point's leases are situated on Maryland's Eastern Shore, in both the upper- and middle-Chesapeake regions.

The company motto is: "Take care of each other, so we can take care of the oysters. The oysters will take care of the customers, who will in turn, take care of us," and their sales pitch is, *Little salty, Little sweet, Quintessential Chesapeake™*. The company was coming off a tough 2018 when they lost much of the crop due to excessive rainfall and extremely low salinities.

Things were looking up for 2020, and then COVID hit and markets evaporated overnight. By the end of April it was clear that something needed to change, so they developed a web site and started taking online orders and shipping them across the country.

When the Washington Post mentioned Orchard Point's plight



SCOTT BUDDEN

The newly established "Orchard Point Prime" (OPP) brand is considerably larger than product grown for the pre-pandemic raw-bar market, but is ideal for roasting or grilling by home cooks.

in an [article](#)¹ at the end of April, they saw sales pop and broke all previous sales records. Working with a small cadre of like-minded growers, led by Pelican Oyster Co., who were sharing tips on issues like packaging and shipping, Orchard Point has been able to recover much of their market. Since the price points on direct sales are better than wholesale, Scott feels that the company is doing okay. Sales are still not where he would

— Continued on page 6

SOAR Program Moving Apace to Help Farmers

The Nature Conservancy
The Pew Charitable Trusts

Responding to the devastating impacts of COVID-19 on the U.S. shellfish-farming community, The Nature Conservancy (TNC) and The Pew Charitable Trusts announced the official launch of their Supporting Oyster Aquaculture and Restoration (SOAR) program on October 21. When the pandemic hit and restaurants closed, demand for farmed shellfish all but disappeared, leaving oyster farmers across the country struggling to market their product. The drop-off in demand caused a growing surplus of oysters that are now becoming oversized for the traditional raw-bar market, threatening a price collapse.

The SOAR program aims to relieve that pressure by purchasing more than 5 million surplus farmed oysters, affectionately known as “big uglies,” to use in nearby oyster restoration projects—a win-win for these environmentally-friendly businesses and for our ocean ecosystems.

Information about SOAR can be found at nature.org/soar, which includes frequently asked questions about the program and an online grower application form. The program

was also highlighted by several media outlets, including NBC’s [Today show](#)¹. In preparation for the approaching winter weather, the SOAR program has begun its first oyster purchases in the Northeast region, in Maine, New Hampshire and Massachusetts. In those states, 272,672 oysters are already under contract to be purchased from 17 growers; 160,000 oysters have been deployed in New



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ECOPHOTOGRAPHY

The Nature Conservancy’s Alix Laferriere (left) and Brianna Group inspect and count oysters with Steve Weglarz (Cedar Point Oyster Company) on the dock at the University of New Hampshire’s Jackson Marine Laboratory as part of the Supporting Oyster Aquaculture and Restoration (SOAR) program on the shores of Great Bay in Durham, N.H.



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ECOPHOTOGRAPHY

The Nature Conservancy’s Alix Laferriere (right) speaks with the staff of the Swell Oyster Company on the dock at the University of New Hampshire’s Jackson Marine Laboratory about the Supporting Oyster Aquaculture and Restoration (SOAR) program on the shores of Great Bay in Durham, N.H.

Hampshire’s Great Bay estuary. The SOAR program is beginning to purchase oysters in New York, New Jersey and Maryland. So far, 41 growers in New York, 26 growers in New Jersey, and 28 growers in Maryland have expressed interest in being part of the program. We continue to work with industry and government officials in Washington state as we move towards launching the program on the West Coast this winter.

If you have questions about participating in the purchase program, please contact Christina Popolizio, c.d.popolizio@tnc.org or fill out the [online form](#)². Please also be on the lookout for an announcement about the Shellfish Grower’s Resiliency Grant Program in early 2021.

We’d like to thank the many growers who are expressing interest in this program and working with TNC and Pew to rebuild oyster reefs and ensure a sustainable future for U.S. oyster aquaculture.

Footnotes:

1. www.today.com/food/tnc-supporting-oyster-farmers-affected-covid-19-today-t195668

2. www.nature.org/en-us/what-we-do/our-priorities/provide-food-and-water-sustainably/food-and-water-stories/oyster-covid-relief-restoration/?vu=soar&tab_q=tab_container_copy-tab_element_1761229797

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Army Corps to Re-Issue Nationwide Permits

by Robert Rheault,
ECSCGA Executive Director

In September the Army Corps of Engineers announced their intention to re-issue many of the Nationwide Permits, requesting comments on 97 pages of material that they posted in the Federal Register. Nationwide Permits (NWP) allow the Corps to permit activities quickly when those activities meet certain criteria designed to ensure minimal impacts. This allows applicants to avoid a more costly and detailed Individual Permit (IP) process, saving time and energy both for the Corps and for the applicants. Usually NWPs are revised every five years, but the Corps wanted to speed up the re-issuance process to address some pressing legal issues and to comply with the president's May 5, 2020 [Executive Order on Seafood](#)¹.

Thankfully, much of the document concerned activities unrelated to shellfish farming, but a substantial portion involved minor tweaks to NWP 48—the permit that covers shellfish aquaculture. The Corps has regulatory authority over structures that might influence navigation under the Rivers and Harbors Act, as well as authority over projects that might influence water quality under the Clean Water Act. Under these authorities the Corps handles permits for everything from channel dredging to oil and gas pipelines, from bulkheads to mooring buoys.

The Corps operates 45 District Offices, each with considerable latitude on interpreting and enforcing certain rules and applying additional Regional Permit Conditions. For instance, the New England District chooses not to permit shellfish farms under NWP 48, instead relying on Regional General Permits. However, the vast majority of shellfish farms outside of New England are permitted under NWP 48.

Last summer opponents to shellfish farming in Washington state sued the Seattle District Corps, challenging whether the Corps had adequately considered potential cumulative impacts of some 800 shellfish leases on eelgrass and plastic debris. The judge in the case ruled with the plaintiffs, and with the stroke of a pen 800 lease permits were invalidated. Those growers are now scrambling, trying to get Individual Permits processed so they can stay in business.

Part of the motivation for re-viewing NWPs was to allow the Corps to reinforce the scientific rationale in their Decision Document to make a stronger case



CINDY WEST/CEDAR ISLAND OYSTERS

Shellfish dredges are a far cry from industrial channel dredges (pictured at right), and should not require Clean Water Act permits because they leave the sediment behind.

that the individual and cumulative impacts of shellfish farming on eelgrass were insignificant, ephemeral and easily reversible. We supported those efforts and the additional scientific evidence that the Corps provided, but I wanted to make sure that the next time the Corps got sued they would be better prepared to defend themselves. I recruited a small army of researchers and did a deep dive into the scientific literature involving eelgrass interactions and ecosystem services.

We pulled together eight pages of scientific references supporting the assertions that shellfish aquaculture improves water quality; mitigates eutrophication; provides excellent habitat for other organisms; stabilizes the benthos; enhances benthic-pelagic coupling; enhances the survival, productivity and diversity of dozens of marine species; and can create conditions

that allow eelgrass to proliferate. The [resulting document](#)² should prove to be a valuable resource to anyone facing allegations that shellfish farming is environmentally damaging. We have posted it to our website for all to access.

I also spent quite a bit of time trying to straighten out what appears to have been a bit of confusion in the Corps' review. They seem to have conflated channel-maintenance dredging with the mechanical harvest of shellfish using hydraulic dredges and other types of shellfish dredges, drags and scrapes. While "Dredge and Fill" activities are designed to alter the



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Comments submitted to the Army Corps of Engineers addressed their conflating "Dredge and Fill" activities that alter the depth of navigable waters, as shown with the 1200-ton clamshell-bucket channel dredger above, with mechanical shellfish harvest methods like dredges, drags and scrapes.

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FDA Proposes New Traceability Regulations

by Robert Rheault,
ECSCA Executive Director

As if reviewing 97 pages of legalese explaining proposed changes to the Army Corps of Engineers' Nationwide Permits rules in the Federal Register was not enough (see page 3), eight days later the U.S. Food and Drug Administration (FDA) published another [54 pages](#)¹ of proposed new regulations.

The proposed new rules will mandate additional traceability records for a list of foods that includes shellfish. Fortunately, the new rule is not slated to take effect for two years, but I fear this only puts off the pain it will inflict. The public has until January 21, 2021 to provide comments on the proposed changes, which include, among others:

- ❑ the need to maintain electronic records;
- ❑ requirements for lot codes; and
- ❑ requirements for records documenting the movement of food through the supply chain.

We already maintain extensive records on where our shellfish comes from and who we sell it to, and it was not long ago that the shellfish industry was a leader in the ability to trace our products from farm to fork. There is no question that new tools such as bar codes and QR codes have made it possible to track products faster and more easily, assuming you have the right scanners and software.

I fear the proposed new rules are likely to divide our dealer-members. They will pose a substantial burden on small dealers, as they will need to invest in new software, training, tags and scanners. Many larger dealers may welcome the new rules since they probably have already made a lot of these investments in an effort to speed inventory



AL DRAGO/CQ ROLL CALL

The FDA is accepting comments on proposed changes to traceability requirements for shellfish. The need to maintain electronic records, and to document the movement of shellfish through the supply chain could prove to be an unbearable burden for small dealers.

control and maintain HACCP records (such as receiving logs and shipping logs). I think harvesters and growers will likely be exempt, with the dealers having to bear the brunt of the new requirements.

The FDA maintains that the new rules will speed up tracebacks by 84 percent and will enable the agency to do faster and more targeted recalls, which they claim will cut costs to industry. It is undeniable that we currently do a pretty poor job with illness tracing. The FDA estimates that fully half of illness tracebacks fail to identify a harvest area, and these investigations usually take 4-6 weeks to complete. Illegible handwriting and poor tag retention by restaurants, combined with the abysmal memory of consumers all conspire to hamper the process.

Unfortunately, the proposed rule only fixes part of the problem, and I remain unconvinced that the new rules will live up to expectations. All the records in the world won't help if the consumer can't remember where they ate, or if the employee enters the wrong number in the computer.

If the new rules do end up speeding tracebacks and allowing for more narrowly targeted recalls, then there should be tangible benefits to public health and some potential savings to dealers. It is also likely that the new rule will make it harder for unscrupulous dealers to commit trademark fraud. These outcomes would be good for our industry in the long run, but I expect the short-term pain will force some small dealers out of business, which is something you never want to see. The new rules will also raise the bar for becoming a new dealer, which has always been a challenge.

I'm working on several pages of comments and I would welcome input from anyone who would like to join the effort. Just email your comments to me at bob@ecsga.org.

Footnotes:

1. www.federalregister.gov/documents/2020/09/23/2020-20100/requirements-for-additional-traceability-records-for-certain-foods

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Orchard Point Oyster Co.

like them to be, and “it is a lot more work to sell a hundred boxes of fifty oysters than to send a truckload to a wholesaler,” but Scott still sounds optimistic. The company is working with wholesalers to get their product into retail outlets, and even exploring flying product to Singapore.

Scott and the Orchard Point team are working harder than ever—trying to maintain the farm with fewer employees to cut costs has taken a toll. When we spoke, the farm manager had just come down with COVID-19, so Scott was doing double duty delivering to customers in the Mid-Atlantic and trying to keep the farm going, too. Much of the gear is overstocked and they are setting aside some product for the shucking houses. They are also selling more 4-inch-plus “Orchard Point Primes” for customers who want a larger product for roasting, since the market for petite raw-bar product continues to be soft.

Despite all the challenges, Scott still maintains a positive outlook. He expects that as we come out of this crisis Orchard Point will be better

positioned to survive future market disruptions, pointing out that, “it is not smart to be totally dependent on the restaurant market. We expect the market to stabilize in 2021 and we have worked on developing new partnerships that should make us stronger and more adaptable.”

Like every grower I know, Scott laments that it is tough to find sufficient and consistent labor for this kind of work, but he still relishes the fact that every day he gets to see things few others will ever see, musing that, “there is nothing better than watching the dawn burn off the morning fog to expose a workplace full of beauty and wonder. Some days I feel like I am in an otherworldly moment of Zen.”

I asked Scott why he became a member of the ECSGA, and he quipped that it was because I kept badgering him to join. Then he pointed to the CFAP2 payouts the company eventually received after initially being denied, noting that it was a perfect example of the power of an industry association to advocate for members.

“We didn’t get a fat check because our 2019 sales were depressed by the low salinity event of 2018, but the ECSGA allowed us to deliver a consistent message to our elected representatives. Working together with a bunch of other



SHORE STUDIOS

When this photo was taken in the fall of 2019 the floating grow-out lease off of Eastern Neck Island on the Chester River had 200 floats. That number has since grown to more than 600.

state associations, the ECSGA was able to achieve something that no single grower or state association could hope to achieve on their own. There is certainly power in numbers.”

Footnotes

1. www.washingtonpost.com/lifestyle/food/with-restaurants-closed-oyster-farmers-need-home-cooks-to-start-shucking/2020/04/28/7cf0b4be-8986-11ea-8ac1-bfb250876b7a_story.html



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RWU Hires Skylar Bayer

Skylar Bayer, Ph.D., has joined the Roger Williams University (R.I.) Department of Biology, Marine Biology and Environmental Science as an assistant professor of biology, aquaculture and extension specialist, replacing Dale



Leavitt. Her research interests include marine ecology and conservation, invertebrate reproduction, shellfish aquaculture and fisheries, and science communication and policy.


Skylar earned a B.S. in Marine Biology from Brown University, an M.S. in Biological Oceanography from the Massachusetts Institute of Technology–Woods Hole Oceanographic Institution Joint Program, and a Ph.D. in Marine Biology from the University of Maine. Prior to joining the faculty at Roger Williams, she completed post-docs with NOAA’s Northeast Fisheries Science Center Milford Laboratory and the Downeast Institute, and received a Knauss Fellowship to work in the U.S. Senate.

Skylar enjoys conducting cooperative research, and has collaborated with both fishermen and aquaculturists during her career. In 2013, she appeared on The Colbert Report in a must-see-TV feature investigating the [case of the missing scallop gonads](#).


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PCSGA Holds Virtual Conference

by Connie Smith,
Assistant Director, Pacific Coast
Shellfish Growers Association

Without a doubt, the Pacific Coast Shellfish Association's 74th Annual Conference and Tradeshow held from Oct. 6-8, was a raging success! While we typically host about 300 registrants at our in-person conferences, we had hoped to pull in about 100 registrants to our first-ever virtual attempt. Needless to say, we were stunned when we hit 240 registrants the day before registration closed. And with big numbers comes big pressure to deliver. I was prepared to disappoint 100 work friends, but 240 respected colleagues meant there could be no screw-ups. And, save for one or two minor stumbles, we didn't deliver a merely mediocre conference, we surpassed everyone's expectations.

On average, 180-200 attendees Zoomed in during each session of the three-day conference. And the feedback we received was (shockingly) all positive. It seems attendees had also set their expectations low—thank you very much—so they, too, were bowled over by the sheer magnitude of what we had taken on. If only they knew that three weeks prior to the scheduled event, we had little hope of pulling off any kind of attempt. We were still figuring out the nuts and bolts of hosting a virtual conference a mere 12 hours before it started. Could you tell we were holding our collective breath when we finally went live?

One of the biggest concerns was the tradeshow. How were we going to accommodate our allied members, who paid dues with the understanding that we were promising them ample exposure to their clients? Well, it turns out our allied members have big hearts, because they, too, were very appreciative of our efforts to showcase their services, offering high praise.

And who could forget our virtual happy hour where we concocted silly limericks, modeled a variety of headgear, and shared what we each were drinking? We not only had fun, it seems we impressed most, if not all attendees. Are we moving to virtual conferences going forward? Absolutely not. Why take a chance and blow this euphoria?

Executive Director Bob Rheault's take on attending a virtual conference

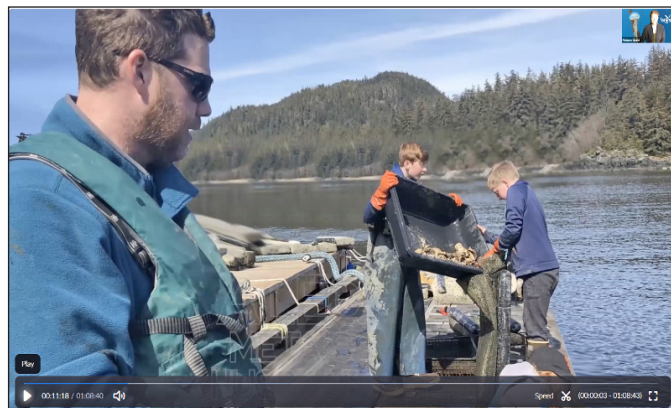
Pros:

- ☐ I could always see the slides—no obstructed views;
- ☐ I could clearly hear the speakers without ambient noise and people talking among themselves in the audience;
- ☐ I was able to come and go easily in order to attend to other tasks as needed without disturbing speakers or attendees; and
- ☐ I saved a ton of money on travel: no flight, hotel or meal expenses.

Con:

- ☐ I really missed schmoozing in person with attendees—one of the best aspects of going to conferences for me.

A grower workshop at the virtual conference discussed the launch of Alaska's oyster and seaweed farm-to-table program. At right, a screenshot from the workshop showing the husband and kids of Meta Mesdag, owner of Salty Lady Seafood in Juneau, Alaska.



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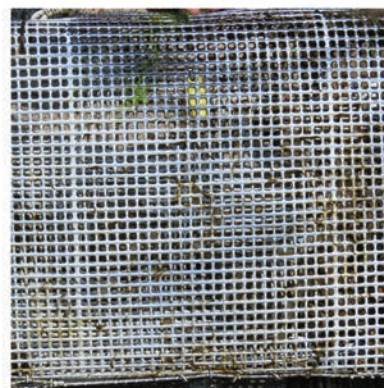
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Life Cycle Assessment Studies Show (Surprise) Oysters Are a Green Food

Everyone reading this newsletter appreciates how shellfish aquaculture is a green industry. We are all well schooled in how growers never use feeds, fertilizers, antibiotics, herbicides or pesticides. But what about our carbon footprint? Well, we have some good news on that front, too!

A new bill was recently introduced in the House Natural Resources Committee: [H.R. 6832 Ocean-Based Climate Solutions Act of 2020](#)¹. The Act combines a series of older proposed bills addressing issues as diverse as offshore wind, energy-efficient fishing vessels, marine-protected areas, harmful algal blooms, aquaculture and oyster restoration. One part of that bill



WILLIAM MEPPEM

required an assessment of the carbon footprint of the various marine industries. This sent me down a fascinating rabbit hole looking at the Life Cycle Assessment of various food production systems.

Teresa Pucylowski, a graduate student at the University of Washington, performed a [Life Cycle Assessment \(LCA\) of the oyster farming industry](#)² for her masters thesis in 2017.

LCA is a standardized tool used to evaluate the environmental impacts of various activities, using metrics such as fuel and electricity consumption; raw materials such as steel, cement and aluminum; and environmental impacts such as greenhouse-gas emissions and pesticide release. LCA provides a way to compare the environmental costs of producing, distributing and disposing of various products.

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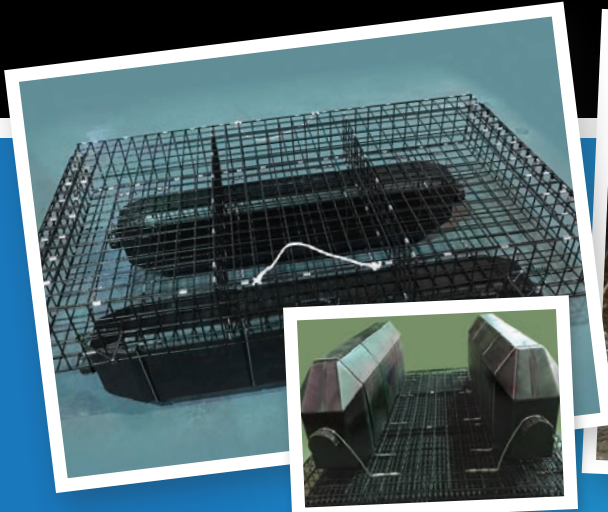


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New Hatchery Technology Comes to Milford Lab

by Kristen Jabanoski, Science Communications Specialist, NOAA NEFSC/Integrated Statistics, Milford, Conn.

Staff at the NOAA Milford Lab are assembling a Cawthron Ultra Density Larval System (CUDLS), which will allow the lab to produce a large number of shellfish families simultaneously in a continuous-flow-through environment. The lab purchased 100 CUDLS conical tanks from a manufacturer in New Zealand that is authorized by the Cawthron Institute to sell these units. This will be the first CUDLS system in North America.

The CUDLS offers major advantages for family-based breeding: requiring less labor, virtually eliminating handling loss, and necessitating a smaller footprint, only about one fifth of the space of a traditional system. The system will be used for family-based breeding of oysters as part of the Eastern Oyster Breeding Consortium, a group of 12 universities and government science agencies that received

a five-year grant to develop tools for selective breeding in support of oyster aquaculture. The U.S. Department of Agriculture is a collaborator in this initiative. The consortium aims to breed disease-resistant oyster lines and lines with traits selected for specific oyster-growing regions.

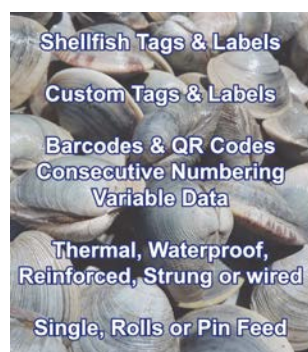
Research chemist George Sennefelder has completed designs for the culture system and built support plumbing, with the help of a team at the lab informally called the CUDLS Club. The lab is updating its seawater system to better support the new system and the ocean-acidification experimental exposure systems. The pilot-scale CUDLS rack will hold up to 56 individual 2.5-liter acrylic cones, providing filtered seawater, air and algae in a 6' by 10' footprint to rear shellfish larvae. The CUDLS system can accommodate up to 1,000 larvae per ml. The project was funded by the Northeast Fisheries Science Center, and the cost of the components and plumbing is approximately \$160,000.

Lab Director Gary Wikfors anticipates that the system may be close to operational by April or May of 2021. It will be tested for weaknesses before beginning oyster genetics experiments.



GEORGE SENNEFELDER/NOAA FISHERIES

Installation of the Cawthron Ultra Density Larval System (CUDLS) will allow the Milford lab to produce many shellfish families simultaneously in a continuous-flow-through environment. This pilot-scale CUDLS rack will hold up to 56 individual 2.5-liter acrylic cones.



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Life Cycle Assessments

Pucylowski looked at hatcheries, FLUPSYs, grow-out and processing using a questionnaire tool to generate impact assessments of producing a dozen in-shell oysters and was able to compare these with a variety of other foods. Perhaps it is not too surprising that oysters have some of the lowest impacts of any of the foods that have been studied, although FLUP-

PSY electricity consumption was one of the highest-impact areas. Also notable were fuel consumption in transportation and electricity consumption for refrigeration, as well as materials inputs for vessel construction and shoreside facilities.

While it is challenging to compare a luxury food like a dozen oysters to a 6-oz. serving of chicken or steak, it does make one appreciate the relative sustainability of different proteins. Using greenhouse-gas emissions as a metric, Pucylowski showed that a dozen oysters had about half the impact of 6 ounces of roast chicken, a third of the impact of 6 ounces of pork, and about 1/25 the impact of an 8-ounce burger.

A [similar study](#)³ by William Davies for the Global Aquaculture Alliance compared published values for CO₂ emissions related to farmed mussels, shrimp, fish, chicken, pork and beef. Again, Davies found that farmed shellfish have the lowest carbon footprint of any of the proteins evaluated. Neither of these studies account



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— Continued on page 14

Prevent and Learn From Injuries and Accidents

by Robert Rheault,
ECSCGA Executive Director

Any time you are working on boats there are plenty of opportunities to hurt yourself. Add in heavy equipment, moving heavy gear around, and some sloppy weather, and the likelihood of injuries goes way up. I have been training entry level workers for shellfish farms for about five years, and most of the class is devoted to safety training: boating safety, protective equipment, food safety, how to safely handle the equipment we use, etc. Injuries are common in our industry, and if you get severely hurt you can't work.

Training is great, but even someone who has been at this for decades can make mistakes, and we have all had near misses at some point. How can we learn from these experiences and



COREY ARNOLD/INSTAGRAM

Whenever the crew is working on a boat there's plenty of opportunity to get hurt. Adopting a formal policy to address injury and accident incidents can help prevent them from happening again.

make sure we don't repeat the same errors time and again?

I recently heard about a formal process that

was adopted by the folks who ran the Hurricane Island Outward Bound School in Maine. Every time instructors had a significant injury (or a near miss) happen on their watch, they would file a report describing the situation in detail, listing the factors that contributed to the event, and then formulating suggestions on how to prevent it from happening again.

Follow-up on these suggestions was of course a critical step! As was sharing the details with all of the watch officers so that everyone could learn from the event. It sounds like an overly formal process for most small growers, but if you don't implement a formal process, the likelihood of actually doing something to prevent it from re-occurring is probably not very great.

On the other hand, adopting a formal company policy of writing up the incident, proposing a fix and then following through results in a much better chance of avoiding a repeat.

Stay safe out there!

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— Continued from page 3

Army Corps to Re-Issue NWP

depth of navigable waters and require Clean Water Act (CWA) permits, shellfish harvesting devices are designed to remove the shellfish while leaving the sediment behind. Again, I was able to provide dozens of references and three comprehensive review publications documenting how mechanical-shellfish-harvesting activities have impacts that are localized and transient, and should not trigger the need for CWA permits.

In our comments we also tried to clarify that planting shell cultch is a normal farming practice that should be exempt from CWA permits (as determined by the Environmental Protection Agency) and should not require Corps permitting as long



Mechanical shellfish harvest methods using dredges, drags and scrapes have localized and transient impacts, and should not need Clean Water Act permits.

as the shell doesn't materially alter the depth of the water and interfere with navigation. Lastly, we provided comment on the Corps' proposal to allow dams to release accumulated sediment, pointing to the potential downstream impacts on oyster reefs and shellfish farms.

The entire 25-page comment document represented an epic lift involving contributions from dozens of researchers in the field, and multiple reviews by growers from all three coasts. I think I got a few more grey hairs in the process, but hope that the Army Corps will have ample scientific backing to ensure they win their next legal challenge from a group that doesn't like our industry. Unfortunately, legal challenges to the resource management agencies that write our permits appear to be the latest tactic employed by opponents of shellfish farming.

But thankfully, most of the science is on our side!

Footnotes

1. www.whitehouse.gov/presidential-actions/executive-order-promoting-american-sea-food-competitiveness-economic-growth
2. ecsga.org/wp-content/uploads/2020/11/PCSGA-ECSCGA-comments-on-ACOE-NWP-reissuance-final.pdf



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NSA Meeting a Go March 21-25, 2021

Although the format is still under development, plans for the National Shellfisheries Association's 113th annual meeting are moving forward. It is likely that the meeting, scheduled for March 21-25, 2021 in Charlotte, N.C., will be partially (or completely) virtual, so you will be able to attend! We cannot make an official statement at the moment as there are still contractual obligations under consideration, but updates will be posted to www.shellfish.org and sent to members via email.

NSA needs your support now more than ever. Not having the Baltimore meeting in 2020, and having a reduced "in-person" presence for 2021 is a financial as well as an academic and social loss.

Because the association's leadership (especially George Abbe and John Kraeuter—thank you!) over the years has carefully planned for financial difficulties, the NSA remains in good financial standing.

Let's keep it that way. The Student Endowment Fund has suffered without the auction revenues, so please consider donating what you might have spent on that t-shirt, hideous lamp, or oyster paraphernalia to the SEF when you renew your dues.

We know it is important for our members to have a forum where they can share their research, and one will be provided. We will have an official program, so you can provide information to your administrators and granting agencies as evidence of official presentations and products. To do this, we need your support and cooperation. The meeting website is now open:

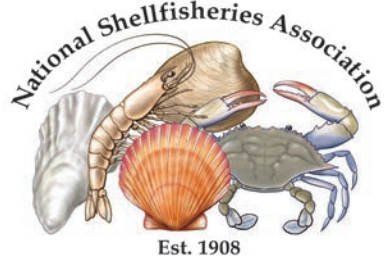
www.shellfish.org/annual-meeting

Please submit your abstract for the conference by December 15, 2020.

Look on the positive side: with at least some (perhaps all) of the conference being done virtually, many of you who might not have travelled to Charlotte can now participate!

If you have any questions, contact Sandy via email at Sandra.shumway@uconn.edu.

We hope you are all faring well during these turbulent times. NSA activities continue, so please continue to support your society!



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— Continued from page 10
Life Cycle Assessments

for the fact that shellfish sequester carbon in their shells, which may remain bound up for thousands of years.

But another [paper](#)⁴ published by Turolla et al., examined clam farming in Italy and estimated that for every ton of clams produced, nearly a half ton (444 kg) of carbon was sequestered.

You're welcome.

—RBR

Footnotes

1. www.congress.gov/bill/116th-congress/house-bill/8632
2. digital.lib.washington.edu/researchworks/bitstream/handle/1773/40230/Pucylowski_washington_02500_17561.pdf?sequence=1&isAllowed=y
3. www.aquaculturealliance.org/advocate/life-cycle-assessment-in-aquaculture
4. doi.org/10.3390/su12135252

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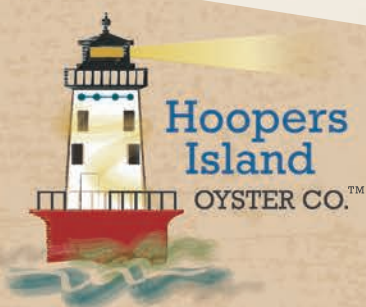
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Grower	\$300,000 to 1 million	\$1,000
Grower	\$1 million to \$3 million	\$2,000
Grower	over \$3 million	\$3,000
Shellfish Dealers and Equipment Suppliers		\$250
Restaurant Ally		\$100
Non-voting Associate		\$50

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Due to the COVID-19 pandemic, the in-person Northeast Aquaculture Conference and Exposition (NACE)/Milford Aquaculture Seminar has been postponed to 2022. We know you are all missing the opportunity to gather together and catch up with old friends at NACE so be sure to tune in to the NACE/ECSGA Virtual Trade Show to see what our suppliers and vendors have developed over the past two years.

Attendance is FREE and you don't even have to leave the house.

Join us via Zoom for the Virtual NACE Trade Show on January 12-14, 2021. Vendor presentations will run from 3-5:30 pm EST each day, and vendors will each have 15-minutes to showcase new gear and innovations to make your job easier!

More details and a schedule of presenters will be posted to the NACE website: www.northeastaquaculture.org

Vendors: Space is limited to the first 30 exhibitors, so be sure to register at shellfish.wufoo.com/forms/nace-2021-virtual-exhibitor-registration by December 18, 2020.

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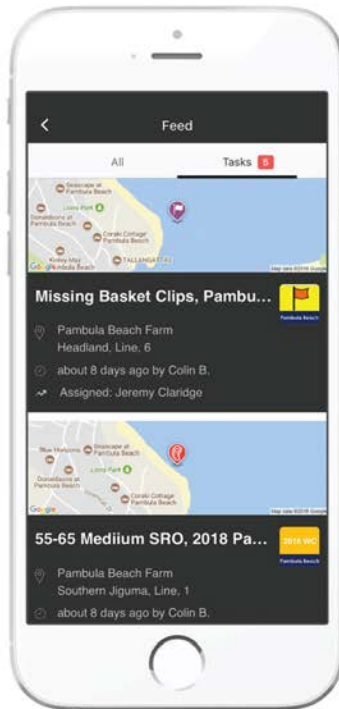
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