

EAST COAST SHELLFISH GROWERS ASSOCIATION



The East Coast Shellfish Growers Association represents over 1,300 shellfish farmers from Maine to Florida and the Gulf states. 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.

1623 Whitesville Rd.
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ecsga.org

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(401) 783-3360
bob@ecsga.org

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The Mouth of the Bay A Tsunami of News



Executive Director
Bob Rheault

As I write this in mid-January, the winter so far has been relatively mild, but we can probably expect a return to normal temperatures before it's all over. I wish I could predict a return to normal for restaurant dining and shellfish demand. With half the restaurants in New York City and Chicago shuttered and 110,000 closed nationwide, and with COVID-19 still raging out of control, I fear we will be seeing several more months of weak markets. But thankfully, we have succeeded in securing a raft of relief programs. If you are not on our Listserv you are missing out on a firehose of information about pandemic relief programs that can help you stay afloat in the coming months.

Before going into the nitty-gritty details of these programs in this extra-long Mouth piece, let me emphasize how important it is that you all take the time to fill out any economic-impact questionnaires that come your way, as well as the U.S. Department of Agriculture's (USDA) Census of Aquaculture forms.

Member Profile: Lowcountry Oyster Company

by Robert Rheault,
ECSGA Executive Director

Trey "Cricket" McMillan, who sports a signature big black beard that doesn't quite manage to hide his friendly smile, started Lowcountry Oyster Company around five years ago (motto: *Farming the sea—Hand raising the best effing oysters*). After working as a charter boat captain for 13 years, ferrying bill fishermen to tournaments up and down the East Coast, he happened to see a floating oyster farm while working a tournament in Maryland. Within a couple of years, Trey was selling oysters to restaurants as fast as he could grow them.

The firm had been growing rapidly, and things were starting to look pretty good when out of the blue the pandemic hit last spring, and suddenly oyster markets froze solid. Trey recalls that he and the crew spent those first six weeks in a sheer panic, "staring at our

navels and wondering what we were going to do. We had done all of our marketing direct to restaurants, but we knew things had to change."

Until the pandemic hit, Lowcountry Cups had been selling themselves, but suddenly the company had to reinvent their entire business model. "We hired a marketing firm, polished up our website and our e-commerce platform, and re-focused on shipping direct to consumers. And that effort paid for itself in a matter of months," Trey said.

But it wasn't exactly seamless. Some of their biggest challenges involved working out the shipping logistics, and the crew of nine employees had to figure out an entirely different way of getting product to consumers. He credits the firm's success to the hard work of his talented crew: farm manager Scott Frazier, shipping and order manager James Yon, nursery manager David Chopan, and the rest of the crew who make it all happen by shifting between farm chores and packing orders: Ty, Connor, Joey, Lee, Kim, Nate, Jeremy and Jacoby.



BARB SKIDMORE

Lowcountry Oyster Company founder and ECSGA South Carolina representative Trey "Cricket" McMillan.

By the fall of 2020 Lowcountry was selling all the product they could grow through direct retail sales. Trey marvels that, "We are selling all over the country now. In fact we just sent a box to Hawaii! The last two months of [2020] we broke all our previous sales records. I guess all those Instagram pics and Facebook posts are paying off!"

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Gathering accurate information about our industry helps us communicate your pain to the agencies that are trying to help. We can't help you if we don't have the data.

If you have not been receiving the Census of Aquaculture in the mail from USDA, fill out the online application form to get on the mailing list so you can participate next time (www.agcounts.usda.gov/static/get-counted.html). USDA counts only about 800 shellfish farms in the entire country, while I estimate there are over 1,300 on the East Coast alone! By law your individual information will be kept confidential and will not be used for purposes of taxation, investigation or regulation. We must do a better job participating in the census so it paints an accurate picture of our industry. It's a chore, but everyone really needs to step up and do their part.

The COVID-cursed year of 2020 has taught me two important lessons. First off, we can't do much with weak data. We need much better participation in these economic questionnaires if we are going to make an effective pitch for aid. Second, I have learned the real value of trade associations and alliances. We would never have gotten those wonderful CFAP 2 checks if we had not been able to leverage the efforts of dozens of groups, all pushing in the

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Lowcountry Oyster Co.

Lowcountry is permitted for 3,000 OysterGro® cages that they have floating on Mosquito Creek, about halfway between the markets in Charleston and Hilton Head, S.C. Although he has not maxed out the lease yet, Trey and the crew are building new gear as fast as they can. Trey explained that the nine-foot tides in South Carolina deliver a rich food supply to the crop, allowing them to take post-set oysters to market size in as little as nine months.

“It sounds great, but we have a big problem with overset and fouling, so we have to flip our gear once a week. It’s pretty labor-intensive,” he said.

Trey is feeling optimistic about 2021 and has high hopes that restaurants and businesses will be back to normal soon. “I know that one third of the restaurants in

Charleston have closed, but even if things don’t snap back as fast as I hope, we have figured out how to thrive with direct sales.”

When asked what the best part of the job was, Trey said it was the serenity of being out on the water. “I don’t get out as much as I would like anymore, but when I



BARB SKIDMORE
 The land-based upwellers “where the babies stay.”

do it makes all the stress go away. Plus, I get to sleep in my own bed at night, something I rarely got to do as a charter boat captain.”

As for the toughest parts of the job, Trey finds that educating the public and regulators about the new type of oysters being grown in South Carolina is challenging.

“Our regulators and politicians still think of big clumps of wild oysters being pulled from low-salinity creeks for oyster roasts that could only be enjoyed during months with an ‘R’. We had to teach everyone about the potential of intensive mariculture, and convince them we could do it safely without getting anybody sick. Getting permission to sell oysters in summer was a big challenge. It was a heavy lift, and a great example of why you need a strong growers association.”

Trey observed that oyster aquaculture is still a young industry in South Carolina, with only around



BARB SKIDMORE

“Lowcountry Cups” on the half shell with the firm’s unique, house-flavor mignonette.

four full-time commercial producers operating right now, but he sees great potential for growth.

“We have revitalized the growers association, which has been a big help in pushing for workable regulations. And we are all members of the ECSGA, which we see as a great resource for information and a great way to connect with other growers,” he concluded.

The ECSGA executive board is pleased to have Trey as a board member representing South Carolina growers, and we feel lucky to have his enthusiastic support for everything we do.

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Does Oyster Aquaculture Support Coastal Food Webs? An Investigation Using the “Squidpop”

by Dr. Jonathan Lefcheck,
Smithsonian Environmental Research Center, Edgewater, Md.;
Dr. Ashley Smyth, University of Florida,
Tropical Research and Education Center, Homestead, Fla.

Fish like structure. Take a dock or shipwreck or any kind of hard, three-dimensional object and toss it into the sea, and soon it will be teeming with life. Historically, fishes and invertebrates keyed in on natural structures: the nooks and crannies of oyster and coral reefs, the prop roots of mangroves, and the canopies of seagrass and kelp beds.



JON LEFCHECK

A school of spadefish swimming by Squidpops, delectable bits of dried squid tethered to garden stakes.

We now understand that by attracting all these animals, these natural habitats provide many benefits. They play a critical role as nurseries in supporting coastal food webs, cleaning the water, and regulating the global climate.

But as aquaculture becomes an increasingly common feature of the seascape, it too contributes structure in the form of cages, netting, floating bags, pilings and other varied infrastructure. Whether these artificial structures provide the same benefits as their natural counterparts while still producing high-quality protein is a critical question in the 21st century.

In our recent study, to be published in March 2021 in the *Journal of Experimental Marine Biology and Ecology* (doi.org/10.1016/j.jembe.2020.151501), we took a deeper dive into the capacity of oyster reefs and oyster aquaculture to transfer energy up the food chain. Coastal food webs are underpinned by the numerous small animals that live in the gaps between the oysters, such as fishes, crabs, worms and snails. As many as 98 percent

of these animals are consumed by larger predatory crabs and fishes, many of which go on to be commercially and recreationally fished.

To get at the notion of “energy transfer,” we used a novel method called a “Squidpop,” a small circle of dried squid tied to a garden stake (see video at www.youtube.com/watch?v=xNt39JSXOeE). Squidpops are ideal for testing questions like ours across large scales where the same bait might not be available—the pops mimic a small, bite-sized animal like those naturally inhabiting reefs.

We placed Squidpops in and around both natural oyster reefs and two kinds of oyster aquaculture gear—rack-and-bag and floating bag—and then observed how many of the Squidpops were consumed after 24 hours. The fewer squid we found remaining, the more of them were consumed by hungry fish and crabs using the oyster reefs and aquaculture structures.

We repeated this experiment at 12 sites in three states—North Carolina, Virginia and Rhode Island—monthly, from the summer through the winter. We also placed the Squidpops in nearby mudflats to test whether a complete lack of structure affected how many Squidpops went missing.

To our surprise, we found that loss of squid was highest under floating oyster aquaculture bags, even more than on the natural reefs.

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JON LEFCHECK

Squidpops were deployed beneath floating bags at Big Island Aquaculture in Gloucester, Va.

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Sea Grant Rapid Response Helps Oyster Growers Weather Oversupply

by Josh Reitsma,
Woods Hole Sea Grant, Woods Hole, Mass.

Responding to the COVID-19 pandemic and the extreme stress caused by market disruptions on the fishing and aquaculture communities last year, the National Oceanic and Atmospheric Administration (NOAA) distributed millions of dollars to state Sea Grant programs for “Rapid Response” measures. Some states used the relief funds to buy shellfish for reef plantings, while others helped growers pivot to retail sales and pumped recipes and shucking videos on social media.

This past fall Woods Hole Sea Grant (WHSG) extension agents Abigail Archer, Harriet Booth and I ran a pilot program to see if surplus oysters could be shucked and frozen in pint containers for distribution to Boston area food banks. The project was such a big success that a second round is planned for early this winter, and folks are looking around for potential sources of funding to expand the program.

Autumn 2020 found oyster growers on Cape Cod suffering significant oversupply issues, and prices were beginning to tank. After doing some research on shucking capacity, costs and

prices, WHSG worked with the Massachusetts Aquaculture Association to establish a fair price and identify growers who wanted to participate in supplying oysters for the program. I talked to some southern shucking houses and did some basic technology transfer to add oyster-shucking capacity to local surf-clam and soft-shell-clam processing plant facilities. The project allowed for the purchase of surplus oysters from 76 growers, and the product was sent to local clam processors for shucking.

The oyster meats were then frozen in pints and distributed through the local food-bank system. When packaged in pint containers (equivalent to a pound of oyster meats) the food banks



ABIGAIL ARCHER/WOODS HOLE SEA GRANT

A pilot program to buy surplus oysters from Cape Cod growers involved shucking the oysters at local clam-processing facilities, freezing the meats in pint containers, and sending them to food banks for distribution to people in need.



ABIGAIL ARCHER/WOODS HOLE SEA GRANT

The town of Brewster, Mass., bought oysters from growers and broadcast them into the waters in advance of annual “Oyster Sunday” events. Residents with recreational fishing licenses were invited to gather oysters for home consumption.

had no problem distributing all the product we could supply, and have been requesting more, as their clients liked getting something “different and special.” In addition to producing approximately 1800 pounds of oyster meats for the food banks, the program had the added bonus of increasing the oyster-shucking proficiency of four local processors, thereby allowing some commercial exploration of a local niche. The program also proved effective enough to allow the Massachusetts Aquaculture Association to receive grant funds to continue a second round of the project in winter 2021.

A second part of the WHSG rapid-response funds was directed to mini-grants to towns so they could provide aid to recreational shellfish programs, which saw enhanced activity and pressure following the COVID-19 outbreak. These mini-grants were largely used by towns to purchase surplus oysters from local growers and move them to nearby recreational areas for harvesting. Over 50 growers from four towns were able to participate in these programs.

For more info on the project visit: seagrant.who.edu/regional-topics/aquaculture-fisheries/shucked-oyster-rapid-response-program.

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Could We Please Base Regulations on Science?

by Robert Rheault, ECSGA Executive Director;
Andy DePaola, DEPE Oysters, Coden, Ala.

This fall (COVID-19 permitting) the Interstate Shellfish Sanitation Conference (ISSC) will hold its biennial meeting, where the U.S. Food and Drug Administration (FDA), state regulators and industry members will convene to consider revisions to our National Shellfish Sanitation Program (NSSP). Even though the process is frustrating and progress is often glacial, getting these rules right is incredibly important because they determine how we run our businesses.

One of the rules ripe for re-examination states that if you are growing seed in Prohibited or Restricted Waters, the animals must be grown in Approved Waters for at least four months before they can be harvested for consumption. The ECSGA has been pushing for years to shorten that period, but the FDA continues to push back, citing concerns about potential contaminants (especially viruses).

Many areas that are classified as Restricted or Prohibited turn out to be quite suitable for rearing nursery seed. Small-boat marinas and protected coves where runoff can lead to high coliform counts turn out to be ideal for the nursery culture of shellfish. Rich food supplies, access to fresh water and electricity, shelter from waves, and on-site security are just some of the features that make these waters great upweller nursery sites.

About 30 years ago co-author Rheault conducted some experiments looking at the potential of growing small seed in small-boat marinas. The expectation was that fuel from gas leaks and heavy metals from bottom paints would probably kill the seed. But surprisingly, he found that mortality was low and growth was excellent. After several years of studies showing that heavy metals were not exceeding the EPA alert levels, Rheault succeeded in getting the ISSC to pass rules saying as long as the seed had a year of grow-out in clean waters the animals could be harvested for human consumption.

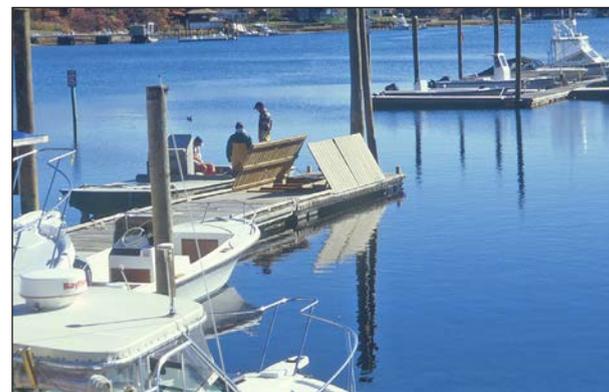
We know that bacterial contamination is typically depurated in a week, and since there was no evidence of other contamination, this seemed like a prudent step. Rheault has continued to push for shorter periods to make the process more workable. Since growers in the Gulf can bring oysters to market size in five to eight months, it would be useful to

shorten the time required in Approved Waters. Over the years the ISSC has reduced the required period to six months, and then four months, but when Rheault pushed for two months the FDA put its foot down and refused to budge.

Consider that most states allow shellfish relayed from Restricted Waters to be held only two to four weeks in Approved Waters before harvest. The NSSP requires that areas impacted by spills of untreated raw sewage must be closed for three weeks before harvest can resume.

When Rheault advocated for the reduction to two months in Approved Waters at the last ISSC meeting in 2019, regulators pointed to concerns about the slow release of norovirus from contaminated shellfish. Apparently, norovirus particles form some sort of ligand with shellfish tissues that allow them to persist in shellfish much longer than bacterial contaminants. Norovirus is the leading cause of food-borne illness in the U.S. today, leading to hundreds of outbreaks and thousands of illnesses annually, but thankfully only a handful of these outbreaks are related to the consumption of contaminated shellfish in the U.S.

Regulators use a genetic detection tool known as PCR (polymerase chain reaction) to detect fragments of viral RNA, and assume that these fragments correlate with the risk of infections. But PCR analyses are challenging because we lack the tools to differentiate “live” infective norovirus from inactivated, non-infective norovirus.



ROBERT RHEAULT

Bob Rheault’s floating upweller was located under the gas dock in a small-boat marina in Wakefield, R.I., for more than a decade. Repeated sampling showed no heavy-metal accumulation or hydrocarbons in the tissues of the shellfish. Growth and survival were outstanding; seed grown in these upwellers earned the moniker, “jiffy-pop.”

Another detection tool homes in on a norovirus surrogate, a virus called male-specific coliphage, that attacks coliform bacteria. The presence of the surrogate virus indicates likely sewage contamination, and hence likely norovirus contamination. Neither of these tools is perfect, but both appear to indicate that as long as waters are warm enough for active shellfish pumping, four-to-five weeks should be more than adequate to eliminate norovirus from shellfish.

Co-author DePaola was formerly the FDA’s lead seafood microbiologist and one of the lead authors of the Vibrio Risk Assessment, which has guided the development of our

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If you're a member and you'd like to be added to our searchable database, head over to ECSGA.org/farm-sign-up-for-buy-shellfish-page and fill out the online form. If you'd like to be listed but are not a member, you can join the association by filling out the online form at ECSGA.org/join-ecsga and pay your dues with Paypal or a credit card. If you'd rather go analog, fill out the membership form on page 6 and mail it back to us with your check.

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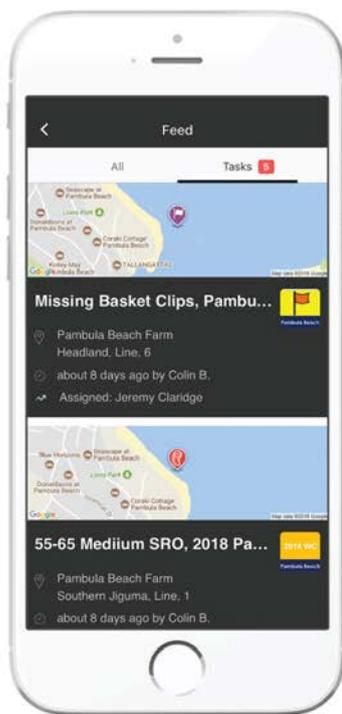
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NSA Meeting a Go March 22-25, 2021

The National Shellfisheries Association's 113th annual meeting, originally scheduled to take place in Charlotte, N.C., will instead be virtual, so mark your calendar to tune in March 22-25. NSA needs your support now more than ever. Not having the Baltimore meeting in 2020, and going full virtual in 2021 is a financial as well as an academic and social loss.

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. The meeting website is now open:

www.shellfish.org/annual-meeting

Look on the positive side: with the conference being virtual, many of you who might not have travelled to Charlotte can now participate! If you have any questions, contact Sandy 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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same direction. It was only by teaming up with the National Aquaculture Association, the Pacific Coast Shellfish Growers Association, Oyster South, the Catfish Farmers of America, the Louisiana Oyster Dealers and dozens of state growers associations that we were able to get that done. We all owe a big thank-you to the dozens of folks who wrote letters and made calls to get our members access to that program. For many of our members, that check was a lifeline.

PPP and EIDL

A lot of growers were able to

take advantage of the Payroll Protection Program (PPP) last spring, and now a slightly tweaked PPP is being rolled out for 2021. To get access to the new funding, applicants must demonstrate a 25-percent decline in revenue from any quarter in 2020 (compared to the same quarter in 2019). These loans will be *forgivable* (aka free money) through your local Small Business Administration (SBA) lender, and are available for first-time applicants or those who got PPP loans in 2020. For more information talk to your bank or read this blog post on our website: ecsga.org/apply-before-march-31-2021-for-ppp-second-draw-loans.

Some growers took advantage of the Economic Injury Disaster Loans (EIDL) to tide them over in 2020. The PPP forgiveness criteria have changed for those first-draw 2020 PPP loans, so you no longer have to deduct your EIDL loan amount from your PPP forgiveness calculation. The next round of EIDL covers a wider array of eligible expenses, so if you were frustrated last spring, you might want to check with your SBA lender again.

CFAP 2

The USDA recently announced changes to the Coronavirus Food Assistance Program 2 (CFAP 2) that could help growers who suffered a crop loss in 2019. If you got an insurance payout due to storm damage in 2019 through the Non-Insured Crop Disaster Assistance Program (NAP), you can recalculate your 2019 sales to include animals that died, which should substantially increase your CFAP 2 payout. Check with your county Farm Service Agent or visit www.farmers.gov/cfap/aquaculture. I am already having conversations with lawmakers about a potential CFAP 3 in 2021 so stay tuned.

CARES Act

Some growers were able to qualify for the NOAA Fisheries Relief funding that was part of the Coronavirus Aid, Relief, and Economic Security Act (CARES), but they had

to be able to demonstrate a 35-percent decline in revenue between 2020 and the comparable reference period in 2019. If you had meager sales in the spring in past years, you couldn't really demonstrate a decline in revenue, and that tends to be the rule for small growers, so most were unable to qualify. Each state devised its own spend plan, and for many states those checks are just coming out now. NOAA leadership is debating whether to launch another version of this program in 2021.

Reef Building

Some growers were also able to participate in various programs that purchased oysters or clams for sanctuaries. Although it might seem like a shame to put good food back into the water, these programs provided three benefits: they took product off a glutted market to avoid a price collapse, they put money in the pockets of farmers, and they built reefs that will provide excellent habitat and improved water quality for years to come. Rhode Island growers sold \$1 million worth of oysters through USDA's Environmental Quality Incentives Program, and Sea Grant programs in several states were able to purchase oysters for reefs. Many states will look into repeating some of these efforts in 2021.

A private foundation worked with the Pew Charitable Trusts and The Nature Conservancy on a program called Supporting Oyster Aquaculture and Restoration (SOAR) to purchase \$2 million worth of oysters for reefs in six northeastern states (www.nature.org/en-us/what-we-do/our-priorities/provide-food-and-water-sustainably/food-and-water-stories/oyster-covid-relief-restoration).

SOAR has another \$1 million to support a resilience-grants program that will be rolled out this spring, funding innovative proposals to improve resiliency in the shellfish aquaculture community. If you have ideas for ways to improve resiliency in your community (whether it involves value-added products,

— Continued on page 12

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Sensible Regulations

Vibrio control measures. He also worked on the Joint U.S.—Canada Norovirus Risk Assessment team. He retired in 2015 and is now an oyster farmer in Alabama. DePaola wants to shorten the cleansing period so that Prohibited Waters can be used to grow nursery seed in Alabama, where he can bring the seed to market size in as little as five months.

Progress on the risk assessment has stalled after several key investigators retired, but the team did succeed in developing a Risk Calculator that could be used as a prudent guide for developing science-based regulations. Unfortunately, since the Risk Calculator has not been published, FDA regulators have pushed back vigorously on ECSGA proposals to shorten the required purge time

to two months. We believe that four months is overly restrictive, and that a period of two months would ensure that shellfish consumers would be protected from any potential viral uptake by seed grown in prohibited waters. It is hard to argue that four months is needed when the FDA allows harvest to resume in waters impacted by raw sewage spills after three weeks.

We plan to submit a proposal to the ISSC this spring for consideration at the fall conference, and hope to be able to modify the NSSP to be a little more rational this year. The current rule makes references to “market size,” which has no definition in the Model Ordinance and is not a very useful term. Even if the current regulations don’t make a lot of sense, at least we are able to participate in a process that allows improvements to be regularly considered and debated.

Fostering Greater Diversity, Inclusion and Accessibility in Aquaculture

by Danielle Blacklock, Director, Office of Aquaculture, National Marine Fisheries Service, Silver Spring, Md.



One of the greatest challenges facing many organizations and industries today involves creating and maintaining a community

that reflects the rich diversity of our country. The business case for diversity and inclusion is clear: a diverse workforce is more productive and innovative when there is a diversity of skills, ideas and experiences.

Aquaculture plays a unique role when it comes to diversity and inclusion, with our work directly impacting access to sustainable

food, community health and climate resilience. As the U.S. aquaculture industry continues to expand, we have the opportunity to build a community that reflects the diversity of the stakeholders we serve. There are already a number of great organizations working in this space, including the newly formed Minorities in Aquaculture, American Fisheries Society Hutton Junior Scholar Program, and Women In Aquaculture.

In the coming year, NOAA’s Office of Aquaculture will focus on highlighting and fostering diversity in aquaculture on a number of fronts. One that I would like to draw your attention to is that we are launching a diversity in aquaculture web series to highlight the accomplishments, benefits and barriers to diversity in aquaculture.

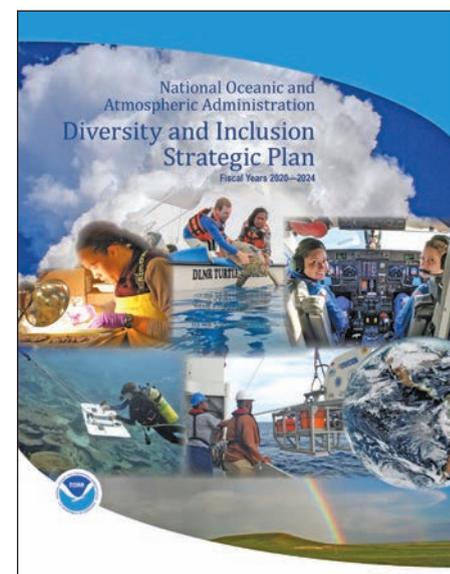
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This series will feature leaders, students, business owners and community advocates who are working to ensure that farmed seafood is an inclusive space. I encourage you to reach out to our team if you know someone who should be included in the series.

In order to achieve our goals as an agency and industry we must not only strive for diversity and inclusion, but we must celebrate it. From women entrepreneurs running their farms, to grassroots organizations working to increase community health, to the mentors fostering the next generation of aquaculture leaders, your work matters and makes our space more accessible.

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— Continued from page 8

Mouth of the Bay

processing capacity, storage or marketing) keep an eye out for the request for proposals.

Shellfish for Food Banks

Soon after the pandemic hit, the ECSGA put in a proposal to the USDA's Agricultural Marketing Service (AMS) requesting that they purchase \$50 million worth of oyster meats to be made into soups and chowders for food banks across the nation. After that proposal was rejected we tweaked the concept and submitted another one to provide pints of frozen meats to food banks. That too was rejected, ostensibly because the meat was too expensive and they questioned whether food banks would be able to take the products. A pilot program rolled out by Woods Hole Sea Grant in the fall of 2020 showed a proof of concept in Massachusetts (see story on page 4) and it proved so popular they hope to buy another batch of oysters for food banks soon.

In August the ECSGA submitted another proposal to the AMS requesting that they purchase \$5 million worth of clams (cooked, frozen in vac-pacs) for food bank distribution. I was pleased to learn in mid-January that our proposal was accepted, so we are working to get vendors certified to participate in that program. To my knowledge this is the first time the AMS has agreed to purchase molluscan shellfish, which bodes well for future purchases if this pandemic continues to drag on.

Other Accomplishments

We continue to work hard keeping our industry members informed about these complicated and ever-changing pandemic-relief programs. Although we had to cancel our March trip to D.C. last year, we still managed to meet with dozens of congressional offices virtually, informing them about our industry and how they could help. We will repeat our "Virtual Walk the Hill" in March 2021, so when you get an e-mail asking you to join a call with your congressional representative I hope you will join me to hop on Zoom and tell your story. If you have a burning issue for us to bring to Congress, contact me or your board representative soon.

With the help of our West Coast counterparts we spent a lot of time reviewing the new Army Corps of Engineers Nationwide Permit (NWP 48) that was rolled out for public comment in September 2020, submitting eight pages of detailed comments. In mid-January the Corps published the final NWP 48, and unsurprisingly most of our comments were ignored or brushed aside. Nevertheless, we did provide a mountain of scientific literature explaining how shellfish farming can be compatible with eelgrass, so we hope the Corps will be better equipped to defend itself

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AI Control Technologies

— Continued from page 12
Mouth of the Bay

from citizen lawsuits going forward. Although we are still in the process of reviewing the new NWP 48, (it contains hundreds of pages of dense text), at first glance it appears that little has changed, in practical terms, to impact the way our farms are permitted.

We are now in the process of writing comments addressing the FDA's proposed rule on traceability. Several folks have joined up to review a complicated new plan that will require farmers and dealers to generate lot codes and maintain electronic records, for implementation in 2023. If you want to join in the fun just let me know.

We thought we had finally gained access to EU markets through an equivalency agreement, only to learn last month that the EU has decided to revise its Import Health Certificate, meaning months of delays while the FDA and their EU counterparts renegotiate the deal. I can't even remember how many times we have been told we are six months from shipping across the Atlantic, only to have our hopes dashed. I feel like Charlie Brown having Lucy pull the football away just as I run up to kick it through the goal post.

Lastly, we are gearing up for this fall's biennial Interstate Shellfish Sanitation Conference (assuming it happens). These meetings give us our

best shot at fixing broken or unworkable regulations, and we plan to fight for several critical changes (see story on page 5). So if you have a regulation that is killing your business, contact me soon.

Like everyone in our community, I found 2020 to be full of huge challenges, but the ECSGA really stepped up its game and worked with added urgency to meet them head-on. I think we can be proud of the work we did, and we are hopeful that 2021 will bring a rapid return to some semblance of normalcy. We have survived our first COVID year, and I think many have emerged stronger and wiser for it.

Good riddance to 2020!



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Squidpops Used to Study Foodwebs

The floating bags also had higher rates of consumption of the Squidpops than nearby mudflats, suggesting that they are an ideal structure for supporting food webs. This finding may be because, unlike natural reefs or rack-and-bag systems, the floating bags are more accessible at low tide and house prey not only on the bag itself, but also in the soft sediments underneath the bags.

While the conservation and restoration of oyster reefs is critical to sustaining natural resources, **our results suggest that some artificial structures, namely floating oyster bags, can provide valuable services that complement those found in natural systems**, such as maintaining a vibrant food web. Thus, in places where natural oyster restoration simply can't occur—for example, because the area is



JON LEFCHECK

An intertidal oyster reef in Timberneck Creek, Va., where consumption of Squidpops was compared to nearby aquaculture sites. The authors' study contributes to the growing evidence that aquaculture infrastructure can provide many of the same benefits as reefs and other natural habitats.

too muddy or too deep—the deployment of floating bags can play an important role. Our study contributes to the growing evidence that **aquaculture infrastructure can provide many of the same benefits as reefs and other natural habitats**, key guidance as we seek to balance conservation, restoration and aquaculture.

Dr. Jonathan Lefcheck is the Tennenbaum Coordinating Scientist for the MarineGEO network at the Smithsonian Institution, and is based at the Smithsonian Environmental Research Center in Edgewater, Md.

Dr. Ashley Smyth is an Assistant Professor at the University of Florida, Institute for Food and Agricultural Science, in the Soil & Water Sciences Department, and is based at the Tropical Research and Education Center in Homestead, Fla.

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Shellfish Growers Could Be Next for COVID Vaccine

Although things could change at any moment, at press time the Centers for Disease Control and Prevention was recommending that people working in the food-production and agriculture industries should be in COVID vaccine Priority Group 1b.

This group will be next in line to receive the vaccine after high-risk front-line healthcare workers and older adults in congregate living settings have been vaccinated. Many states are following the CDC's vaccine priority guidance, so check with your state health department to see if you're eligible to sign up for your shot soon.



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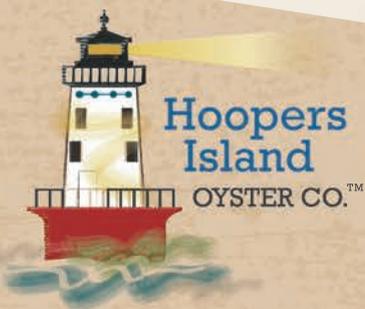
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Grower	\$1 million to \$3 million	\$2,000
Grower	over \$3 million	\$3,000
Shellfish Dealers and Equipment Suppliers		\$250
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