# 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. Toms River, NJ 08755 ecsga.org **Executive Director Bob Rheault** (401) 783-3360 bob@ecsga.org President Karen Rivara Vice-President Alex Hay Secretary Matt Behan Treasurer Gef Flimlin Connecticut .... Brian Yarmosh Delaware ...... Mark Casey Gulf Coast ...... John Supan Maine ..... Jeff Auger Maryland ...... Tal Petty Massachusetts Mark Begley New Hampshire Jamie Heaney New Jersey ..... Bill Avery New York ..... Karen Rivara North Carolina Chris Matteo Rhode Island ... Jeff Gardner South Carolina Trey McMillian Virginia ..... Chad Ballard

Equipment Dealer Heather Ketcham Shellfish Dealer Chris Sherman

Ex Officio Ed Rhodes, Leslie Sturmer

### The Mouth of the Bay So Much To Be Thankful For



After a week of overeating with family and friends I'm setting aside time to reflect on another year gone by—to give thanks for all the proud men and women in our community who support our work, and for the opportunity to serve as your voice. The pandemic certainly tested our stamina, but we rose to the challenge and many emerged stronger for the effort.

Executive Director Bob Rheault stronger for

I can honestly say I have the best job in the world. We produce some of the most sustainable proteins on the planet, the most delicious and nutritious foods that nature can provide. Our labors improve water quality and provide habitat for myriad fish and other critters. Not many other industries can make such claims.

I've always enjoyed a good fight, and we all know there are many battles ahead. We don't go into these battles alone, but rather with many great allies. Related groups like the National Aquaculture Association and the Farm Bureau, and dozens of state and regional growers associations have pulled together over the last two challenging years like never before. Together we were able to save many farms from going under. We continue to cultivate strong ties with political leaders, eNGOs like The Nature Conservancy and The Pew Charitable Trusts, and a cadre of talented scientists, all of whom are rooting for our success.

Our membership has grown to include over 200 growers, dozens of dealers, 40 equipment suppliers and hundreds of others who value our work and want to be supportive. It seems to be a missed opportunity for the 1,300 farms who are not yet members, and I'm concerned that about half our members didn't renew their membership this year, but I am optimistic (like all farmers) that next year will be better. The association's finances are sound, but I can't help but wonder how much more we could achieve if we had more resources to fund our efforts.

Next year will bring a return to face-to-face meetings and I am looking forward to seeing old friends at conferences once more. We will probably be able to go back and Walk on the Hill in DC again, and while I am not looking forward to wearing a suit, I do think that re-establishing ties with our elected representatives and congressional staffers is an important part of what we do. Next October will bring another ISSC conference, and there are lots of changes that we need to make to the National Shellfish Sanitation Regulations. As always, I welcome suggestions, so please don't hesitate to reach out and tell me what you think we can do to make our community even stronger.

### **TNC Releases Restorative Aquaculture Report**

The Nature Conservancy recently rolled out a new report titled, <u>Global Principles of Restorative Aqua-</u> <u>culture</u><sup>1</sup>. Going beyond conservation and sustainable production, the report calls for increasing aquaculture systems that actually restore ecological function, productivity and biodiversity. Of course, we are talking about shellfish and seaweed farming, but also certain types of finfish farming.

The report was developed by a global team of authors from a dozen organizations with a substantial focus on China, where over 60 percent of the world's aquaculture is centered. The team focused on increasing the global supply of seafood, asking how we can promote the production of food using biological systems that improve habitat function, productivity and biodiversity while improving water quality and potentially providing climate solutions.

The team agreed on this definition: Restorative aquaculture occurs when commercial or subsistence aquaculture provides direct ecological benefits to the environment, with the potential to generate net positive environmental outcomes. Restorative aquaculture builds on, but is distinct from, concepts such as "Ecological Aquaculture," "the Ecosystem Approach to Aquaculture," "Conservation Aquaculture," "Stock Enhancement" and "Habitat Restoration." It describes a process that assists in the recovery of a damaged or destroyed ecosystem.



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TNC's Brianna Group (I) and Steve Weglarz of Cedar Point Oyster Farm in New Hampshire's Great Bay Estuary add oysters to a restoration reef near Nanny Island as part of the (SOAR) program.

The report largely focuses on a few well-documented benefits of shellfish and seaweed farming:

□ assimilation and denitrification of excess anthropogenic nutrients (nitrogen and phosphate), which mitigate the negative impacts of eutrophication;

□ filtration of particulate organic matter and algae to improve water clarity and light penetration; and

□ providing complex emergent structural habitat, which is proven to enhance fish and invertebrate productivity, survival and biodiversity.

## **Birds on Floating Gear Could Present Problems**

by Robert Rheault, ECSGA Executive Director

Over the past decade many oyster growers have switched over to floating gear and various types of suspended gear that is left high and dry at low tide. The reasons for this migration are many. Floating gear—like the OysterGro® cage, the FlipFarm system, SEAPA baskets and Hexcyl baskets—all solve the main problems we face with fouling control. Exposing the gear and the oysters to the sun can bake off the algae and sea squirts, control pests like boring sponge and mud blister worms, and deal with oyster overset.

In areas with some wave action the surface gear will also round up the oyster shape and improve cup depth and shell thickness. Warm surface waters will often grow an oyster faster, and the reports I am hearing about improved survival rates using floating gear are almost too good to be true.

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Scare kites like the OysterGro BirdAway hawk system silently repel birds from floating gear. The wind drives the flight pattern, speed and altitude of the "hawk," tethered to the flexible pole. The variable movement ensures that birds don't become habituated to it.

But floating gear also provides waterfowl with an irresistible perch, and every time a bird takes off it invariably leaves something behind. In places with lots of birds we can sometimes find our gear speckled with guano. The visual is not great, but I had always assumed that since the guano is baked in the sun, most of the pathogens were probably eliminated. Importantly, we were not getting reports of illnesses associated with bird waste. Nevertheless, when the Interstate Shellfish Sanitation Conference (ISSC) pushed through a long-overdue update of the



aquaculture chapter in the National Shellfish Sanitation Program in 2018, the FDA insisted on a clause that said, if your gear attracts birds or mammals you need to have an operational plan to indicate how you plan to deal with it.

Since then we have been struggling to interpret exactly what that clause means. In some cases growers have had luck deploying "scare kites" or other deterrents to keep the wildlife away. Some growers are experimenting with various types of "ticklers" to deter the birds from landing, or ways to make it uncomfortable for the birds to perch. The ISSC Aquaculture Commit-



HEATHER KETCHAM/KETCHAM SUPPLY

Ketcham Supply is working with researchers to test prototypes like these wire triangles that attach to the tops of floating gear. They seem to be effective in discouraging larger, web-footed sea birds from landing, but do not seem to work as well with smaller critters like terns, which can land on the wire.

tee was charged with developing guidance, but that process has dragged on and we don't have anything to show for it yet.

A few weeks ago eight people became ill from eating raw oysters, and the outbreak investi-

gation revealed that the culprit was a bacterial pathogen called Campylobacter. This bug is usually associated with chicken offal, chicken-house workers and cross contamination of raw foods in the kitchen. The state Department of Health sampled ovsters from the source farm and found several of the oysters were contaminated. This was quite disturbing for many reasons. Water samples taken 50 feet outside the farm perimeter revealed coliform counts just barely at the limit of detection. Based on this criterion the waters should have been safe for harvest.

Nevertheless, the illness outbreak and the detection of *Campylobacter* in some of the oysters was certainly cause to close the farm to further harvest. Subsequently, the Department of Health decided to look at coliform counts in the oyster meats and found these to be quite elevated.

While in the past the U.S. used meat counts to establish harvest

### FDA's New Rules: What Will Change for the Seafood Industry?

by Chip Terry, CEO, BlueTrace, Castine, Me.

> "The New Era of Smarter Food Safety represents a new approach to food safety, leveraging technology and other tools to create a safer and more digital, traceable food system."

-New Era of Smarter Food Safety: FDA's Blueprint for the Future, 2021

The Food Safety Modernization Act is not new. Congress passed the law in 2011 to give the Food and Drug Administration (FDA) the ability to initiate mandatory recalls and a host of other powers over the food industry. In 2020 FDA issued a major proposed update to the rules, entitled, *New Era of Smarter Food Safety*. Although the final rules will not be published until 2022, the outlines are clear.

The rule builds on four core elements: Tech-Enabled Traceability, Smarter Tools and Approaches for Prevention and Outbreak Response, New Business Models and Retail Modernization, and Food Safety Culture. Lots of words and implications. You can read more on the <u>FDA website<sup>1</sup></u>, but here is our take on what this means for the seafood industry.

The key update is Section 204, designed, in the words of the FDA, to "harmonize the Key Data Elements and Critical Tracking Events for enhanced traceability." The goal is to have

end-to-end traceability that can enable rapid tracebacks—instead of the current system that generally takes weeks and often fails. Here are some of the implications for seafood companies:

#### Seafood gets special attention:

The FDA ran risk models on what foods lead to the biggest food safety issues; all seafood (except scallop adductor muscles and catfish) ended up on the list, along with leafy green vegetables, eggs and numerous other products.

New acronyms (KDE and CTE) get added to HACCP: For most distributors, the system will build on their existing Hazard Analysis and Critical Control Point (HACCP) program by mandating the tracking of Key Data Elements (KDEs) through Critical Tracking Events (CTEs).

**Digital is required**: The mandate is for nearly every participant to provide a sortable spreadsheet to the FDA within 24 hours of request—essentially meaning that most companies must maintain a digital record.

![](_page_2_Picture_12.jpeg)

Lot codes are key: Harvesters are required to put a unique identifier (lot code) on each harvest, and that information should travel with the product through the supply chain.

The first mile will be the hardest: Harvesters/growers are expected to collect and pass key information (including a lot code) about every harvest to the first buyer.

*Interaction with other regulations is unknown*, most notably, the shellfish regulations that already require very similar information and tracking (minus the digital pieces).

Although the goal of safer food is a good one and the specific rules are under final revision, the impact on the seafood industry could be far-reaching. Here are some of the biggest challenges we see for adoption:

**Small, non-technical suppliers may struggle**: Fishermen and growers are great at a lot of things. Technology is generally not one of those things. From that oyster farmer in a Carolina skiff to the lobsterman or the long liner, most harvesters are not using a lot of technology.

**Long supply chains**: Five or more stops in a chain is not unusual. Passing information among all those players seamlessly is a big task, requiring new protocols and standards.

**Fast turn-around is crucial**: No one wants rotting fish. Inventory churn is measured in minutes and hours, not days and weeks.

**Employee turnover is a real problem and there are often language problems**: There is little appetite for hiring tech folks or spending large amounts of money training new employees.

**Data sharing**: Most companies do not want to share who they buy from and who they sell to with others in the chain. Traceability challenges that business practice.

Anyone who has spent time on a fishing vessel or in a seafood processing plant knows that most companies still use a lot of paper and don't have the systems needed to meet the FDA's vision of "food traced to its source in seconds." Not to mention, "alerting consumers in real time before contaminated or misbranded foods are consumed."

There is a lot more to come about this rule, but now is a good time to start thinking about your digital strategy. How do you collect, store and transfer key information about your product?

There are solutions out there (including BlueTrace) and you should look at a few.

1. www.fda.gov/media/139868/download

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![](_page_3_Picture_6.jpeg)

**Jesse Fortune** *Owner/President* 

Cell number 1 902-629-0126

## Continued from page 2 Bird Problems with Floating Gear

area classifications, it was decided to move to water-quality sampling several decades ago. Health officials in the European Union still use coliform meat counts as their standard, but the U.S. program is based entirely on measuring the indicator coliform bacteria in growing-area water samples. The fact that our water sampling totally missed the health threat in this case is a bit of a red flag and perhaps a cause for concern. Since the water-quality samples revealed no impairment, the Health Department had to "wing it and go out on a limb" [sorry]. They decided that if they could get three weeks of clean samples with acceptable meat counts and no detection of Campylobacter in the oyster meats they would reopen the area. The grower sank all his gear and the counts promptly declined, confirming that the birds were the source of contamination, and allowing him to safely start harvesting again.

To some extent it is a bit surprising that we have not had many illness outbreaks related to bird-borne pathogens in raw shellfish before now. Birds are common in many harvest areas, and we have all seen speckled sandbars and white-topped rocks near farms and wild-harvest areas. Many health authorities have actually had to close harvest areas when large flocks of birds would come through and trip the waterquality coliform levels.

#### How do we avoid another illness outbreak?

We are working with researchers from the USDA's Animal and Plant Health Inspection Service (APHIS) to explore methods of deterring birds from landing on floating gear. Shoot-

![](_page_3_Picture_14.jpeg)

CAROLINA GOLD OYSTER COMPANY

Carolina Gold Oyster Co. was able to reduce their bird problems at least 80 percent by putting extra-long zip ties on the cages and not cutting off the long ends. When birds come in for a landing, the "ticklers" flap in the wind and scare them away.

ing them or using scare cannons as farmers do in some corn fields is not going to be acceptable for shellfish farms. Some growers have had success with scare kites that look like predatory birds. But some states have made it clear that these kites can't be deployed in areas where they might scare protected resources such as the threatened marsh sparrow or other protected highly migratory species.

Making the gear less attractive as a perch is another option, and we have a bunch of prototypes being tested at various sites. Some growers have taken to sinking their product for a period of time before harvest to enable the shellfish to purge any pathogens they might have picked up.

Unfortunately we still have tons of questions and not much data. We suspect that if we go around sampling for *Campylobacter* in shellfish meats we are likely to find it. The Risk Assessment that the World Health Organization

> conducted for *Campylobacter* does not even hazard a guess at how many cells it takes to cause an illness. We just don't know how many birds is too many. If you have a few birds but huge tidal flow, the dilution factor is probably adequate. Outside the U.S. two studies were conducted that looked at how long it takes oysters to depurate the bacteria; it appears that 48 hours is probably adequate, but we need to repeat this work with our oyster species to be sure.

One thing is certain: the next meeting of the aquaculture working group is going to be a lot more interesting. The need to promulgate guidance on how growers should address birds just got much more urgent. Since we will be developing guidance without much data we are flying blind, and we can be sure that the FDA will be recommending steps that involve an abundance of caution.

Stay tuned.

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### Jan. 2022 NACE/Milford Aquaculture Seminar: Live Once Again

Excitement is mounting as the time draws near for the Northeast Aquaculture Conference & Exposition/41<sup>st</sup> Milford Aquaculture Seminar. Slated to take place Jan. 12-14, 2022 at the Holiday Inn by the Bay in Portland, Me., the event will feature concurrent sessions on all aspects of aquaculture, multiple workshops, field trips to area aquaculture farms and research facilities, a trade show with 40 vendors and of

![](_page_4_Picture_2.jpeg)

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course, many opportunities to schmooze. The organizers have partnered with local restaurants in the famed foodie mecca of downtown Portland; many of them will be offering reduced prices for NACE attendees.

Given the state of the ever-morphing pandemic, hosting a group of enthusiastic attendees for the first time in three years has been both excit-

ing and challenging for the event organizers, but after consulting with the Maine Centers for Disease Control and hotel management, they have planned for an environment that will be safe for everyone: attendees and hotel staff, as well as the very important people everyone will be going home to.

To that end, evidence of full vaccination is required by uploading a vaccination-card photo before Dec. 10, 2021 (digital copies of vaccination cards will be destroyed after the conference). The hotel has installed HEPA air-handling filtration and hand sanitizers, and will spread out seating in the meeting halls. The organizers may implement other precautions such as on-site rapid COVID-19 testing upon arrival, temperature screening for fever and/or masking mandates if necessary.

To avoid overcrowding, registration has been capped at 450, so don't delay, register today: <u>www.northeastaquaculture.org/</u> <u>registration</u>.

## Sign up Now for the 2022 Census of Agriculture

You can help yourself and your industry by filling out the Census of Agriculture. Reliable census data is key in delivering you crucial help when disaster strikes. The information you submit could lead to new crop-insurance and disasterrelief programs tailored specifically to the shellfish industry.

Visit <u>www.agcounts.usda.gov/static/</u> <u>get-counted.html</u> to register. You'll get a census form in the mail in December 2022, which you can fill out online or on paper. When you indicate that you're a shellfish grower on the Census of AGRIculture, USDA will mail you a Census of AQUAculture form in December 2023.

By law, your individual info will **remain confidential**, and won't be disclosed to any other government or private entity, or be used for purposes of taxation, investigation or regulation.

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"This has probably been the best business decision we have made all year." - Duane Fagergren, Calm Cove Oysters, WA

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![](_page_5_Picture_3.jpeg)

#### - Continued from page 1 **Restorative Aquaculture**

The authors acknowledge that the potential benefits of carbon sequestration and local mitigation of ocean acidification relating to shellfish and seaweed culture are more challenging to assess and document scientifically, but they expect that there is tremendous potential here.

The team produced six *Principles* of *Restorative Aquaculture* that go beyond the basic tenet of minimizing negative impacts.

1. Site farms where environmental benefits can be generated;

2. Culture species that can provide the intended environmental benefits;

3. Prioritize farming equipment that enhances the delivery of environmental benefits;

4. Adopt farming-management practices that can enhance local environmental benefits;

5. Strive to farm at an intensity or scale that can enhance ecosystem outcomes; and

6. Recognize the social and economic value of the environmental benefits provided.

The report also provides four <u>im-plementation roadmaps</u><sup>2</sup> consisting of flow charts on how farms can be designed and managed to provide water quality, habitat, and the benefits of carbon sequestration and ocean-acidification buffering.

The document points out that global food production now accounts for nearly a quarter of greenhouse gas emissions and about 70 percent of freshwater usage. Seafood accounts for only about 2 percent of the global food supply, but the team notes that fisheries and aquaculture have a much lower carbon footprint than land-based protein production. Any actions we can take that replace some terrestrial proteins with marine proteins will have a net climate benefit, as well as proven health benefits. Building on the concepts of regenerative agriculture, the report targets increasing food production from the sea by 74 percent by 2050, which is a lofty goal since we already harvest 90 million metric tons of seafood globally each year. The report cites studies showing that we could increase global shellfish production thirty-fold and that doing so would have tremendous ecological benefits.

I am looking forward to working with The Nature Conservancy as the ECSGA embarks on its SOAR-funded effort to revise our Best Management Practices to help shellfish farmers consider ways to improve or optimize the proven ecosystem services associated with shellfish farming. It is gratifying to have one of the world's leading environmental advocacy organizations working to raise awareness about the ecosystem benefits of shellfish farming while pushing to expand our industry.

You can download your copy of the new report at: <u>nature.org/</u> aquaculture.

1. <u>www.nature.org/content/dam/</u> <u>tnc/nature/en/documents/TNC\_</u> <u>PrinciplesofRestorative</u> <u>Aquaculture.pdf</u>

2. www.nature.org/content/dam/ tnc/nature/en/documents/TNC\_ PrinciplesofRestorativeAquaculture.pdf#page=23

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### ESCGA Wins SOAR Grant to Revise Best Management Practices

by Robert Rheault, ECSGA Executive Director

The ECSGA was awarded a \$67,127 grant from the Supporting Oyster Aquaculture and Restoration (SOAR)<sup>1</sup> Shellfish Growers Resiliency Fund. SOAR was funded through private donations and developed through a collaborative effort—including The Nature Conservancy, The Pew Charitable Trusts, the U.S. National Oceanic and Atmospheric Administration (NOAA), and the U.S. Department of Agriculture (USDA)-to address the COVID-19 pandemic's impact on the oyster aquaculture industry. SOAR helped dozens of growers find homes for oysters that were unsold due to the collapse in demand when the pandemic hit. Millions of oversized oysters were placed on restoration reefs, where they helped to improve water quality and enhance fish habitat.

SOAR also allocated \$1 million for the Shell-

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#### fish Growers Resiliency Fund<sup>2</sup>,

which funded 22 small grants (up to \$20,000) and seven large grants (up to \$100,000) to shellfish growers and aligned organizations. The grants will be used to further collaborative marine conservation efforts and increase economic opportunities for shellfish farming in the United States.

The grant will allow the ECSGA to revise our Best Management Practices (BMP) module to ad-

dress a variety of gaps and emerging issues. Our <u>BMPs</u><sup>3</sup> were published in 2010 following 22 workshops with input from hundreds of stakeholders. It was always intended to be a living document, and given the rapid evolution of shellfish farming, a revision is certainly long overdue.

We intend to update our BMPs to address concerns related to the use of floating gear, a practice that has grown in popularity, but was just getting started when our BMPs were created. We will also work to develop management recommendations to address

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bird waste and plastic debris associated with shellfish farming, and make suggestions about optimizing ways to provide ecosystem services associated with shellfish farming. Lastly, the grant will be used to help us revise the platform that growers can use to develop their personalized BMP farm plans.

The lion's share of the funds will go to a facilitator who will coordinate a series of seven workshops

addressing the issues surrounding floating gear such as OysterGro<sup>®</sup>, FlipFarm systems, SEAPA baskets and Hexcyl arrays. These gear types have grown in popularity because they address many of our management challenges by facilitating fouling control, speeding up growth rates, and improving meat and shell quality. These innovative gear types have a proven track record of producing animals with superior survival rates compared to most of the alternatives. Unfortunately, they are also much more visible and pose a more significant barrier to navigation than sunken gear, so they have drawn significant opposition from boaters and waterfront homeowners.

We will be holding a series of workshops in 2022 with growers, regulators and extension folks to examine these conflicts; we hope to develop permitting, management and siting approaches addressing some of these issues. The first of these workshops will be at the <u>Virginia</u> Aquaculture Conference<sup>4</sup> in Newport News, Va., on Jan. 8; followed by one at the <u>NACE</u> <u>conference<sup>5</sup></u> in Portland, Me., on Jan. 14. One workshop will be held on Cape Cod, Mass., on

Jan. 18; two will be held on Long Island, N.Y., on Jan 26; one in Rhode Island on Feb. 15; and one in Connecticut on Feb. 16. It was impossible to have a workshop in every state, but we hope to hear from much of the industry at these meetings.

#### **Restorative aquaculture**

The second aspect of the grant focuses on the restorative nature of shellfish farming. We know that shellfish improve water quality, assimilate nitrogen, and provide excellent habitat for a variety of fish and invertebrates. We plan to engage ecologists and growers to consider the ways in which we site, design and manage our farms, and challenge them to envision tweaks that would help us improve the ecosystem services associated with our farms. We will have those discussions virtually, and also have scheduled in-person workshops at NACE<sup>5</sup> in January and at Aquaculture 20226 in San Diego in March.

Working with Robert Jones of the Nature Conservancy, I will also

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## If We Want to Sell More Oysters,We're Going to Need More Shuckers

*by Robert Rheault, ECSGA Executive Director* 

The pandemic taught us many painful lessons about a lot of things, but the main takeaway about oyster markets was that over 90 percent of oysters are eaten in restaurants. Growers who tried to pivot to home delivery heard from dozens of potential customers that they were afraid to try to open oysters at home. Now as we begin to enter the post-pandemic world (fingers crossed), we are hearing that even as restaurants are experiencing resurging demand, they are having a hard time finding enough shuckers to meet that demand. Of course, the problem is not limited to shuckers—employers everywhere are facing worker shortages.

For years I have quipped that expanding our markets is hard because consumers can't open our product, and that whoever figures out how to cross an oyster with a flip-top beer can will become a millionaire. But let's get serious. If we want to continue to boost production and consumption we need to teach more people to shuck! And not just shuck, but do it well so they don't end up with a scrambled oyster and mouthful of shell chips (or worse, a trip to the emergency room).

Let's also be honest: shucking the fast-growing, cage-cultured oyster, which often has a thin shell, requires a different knife and a different approach than shucking a thick-shelled, bottom-grown, 3-5 year-old oyster. Oysters with boring sponge damage require the shucker to perfect the "side knife" approach. And while almost anyone can be taught to open a few dozen, it takes skill, strength and stamina to open ten or twenty bags a night. As with any skill, it usually takes a few thousand repetitions before you get really good at it, and when there's a line of eager customers waiting, there is a ton of pressure to be fast. It takes a highly skilled professional to shuck fast and still do a good job.

![](_page_9_Picture_6.jpeg)

![](_page_9_Picture_7.jpeg)

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It takes skill, strength and stamina to be a professional shucker like Jose Valdez of Queens, N.Y., (r) shown here competing at the 2016 Milford Oyster Festival shucking contest. Shuckers were judged on speed and presentation, but points were deducted for cutting an oyster, not completely severing it from its shell or not placing it on the shell properly; presenting an oyster on a broken shell, or with grit, blood or another foreign substance on the flesh.

> There are a few solutions to consider. As oysters grow in popularity we need to elevate the prestige of both the professional shucker and the home shucker. Let's make learning how to shuck a rite of passage. How about a Boy Scout/Girl Scout merit badge for shucking? Let's help the celebrity shuckers tell their stories about how they travel the world to compete in contests and bring home big prizes. Let's spread the word about how a skilled shucker can often earn hundreds of dollars in tips in one night.

Growers who sell direct can also pad their sales with shucking kits, gloves, knives and instructions to help home consumers overcome their fears. Frankly, shucking kits should be sold wherever oysters are sold. There are

dozens of online videos out there, but how about more shucking demos on cooking shows and videos that show folks how to grill oysters without using a knife.

I suspect we should also be making more processed products, but then you still have the challenge of finding folks to shuck the oysters in the processing houses. A number of processors are investing in High Pressure Processing systems, which not only reduce bacterial risk, but also result in a perfectly shucked product. Irradiation, freezing and pasteurization are also options to consider if you are aiming for a processed product anyway.

If you have ideas on how to get more people shucking, whether it's the home chef or the raw bar expert, we are all ears!

Home cooks can access a large selection of delicious shellfish recipes at

ecsga.org/new-recipes-page. You can narrow the search by entering terms such as "grilled," "sauces," etc. in the Keyword field.

Sea Farms Consulting LLC

jsupan2575@gmail.com

![](_page_9_Picture_17.jpeg)

VISA/MasterCard accepted

**Includes marble** 

PAGE 10

## Continued from page 8 SOAR Grant for BMPs

hold a series of workshops and small-group discussions on steps growers can take to improve denitrification and biodiversity on the farm. We'll address questions such as: *What can we do to prevent the spread of invasive species? What's the best way to deal with biofouling or predator control? What can growers do to limit the scourge of plastic debris?* 

Another part of the BMP revision will address an emerging issue: concerns related to bird guano on our farms, and how growers can deal with potentially impacted shellfish. Some of this will come out of the Food and Drug Administration (FDA) and the Interstate Shellfish Sanitation Conference's Aquaculture Committee, but we are also working with industry groups and the USDA's Wildlife Services Branch to evaluate various deterrents that keep waterfowl from perching on gear. As we navigate the process of updating our BMPs we will also glean what we can from the efforts of states that have developed their own BMPs. We will review what we generated over a decade ago to make sure it is still relevant, and we will incorporate new developments and innovations that will help growers be the best they can be.

Lastly, we hope to improve the platform that guides farmers through the process of developing a personalized BMP manual tailored to their individual farms. We know from member feedback that developing a farmspecific BMP manual can be useful in both permitting and marketing. Our current BMP module is based on a somewhat archaic Excel spreadsheet with lots of embedded macros that trip malware alarms on our hosting server and on user's computers. We envision a more userfriendly, web-based tool that should make it easier for growers to generate their own BMPs. This is an ambitious project, and we hope that members will engage with us to help modernize and update our BMPs to address our rapidly evolving industry. We will advertise the upcoming workshops broadly, and hope that you will help us make the ECSGA's BMPs more relevant and effective. We know we have a great sustainable-food-production system, but we also know there is always room for improvement. It will be interesting to see what comes out of these efforts.

#### 1. <u>www.nature.org/soar</u>

2. <u>www.nature.org/en-us/newsroom/shellfish-growers-resiliency-fund-builds-on-success-of-soar-initiative</u>

- 3. ecsga.org/best-management-practices
- 4. vaaquacultureconference.com
- 5. www.northeastaquaculture.org
- 6. <u>www.was.org/meeting/code/AQ2022</u>

![](_page_10_Picture_12.jpeg)

#### Products for Marking & Identifying Shellfish Aquaculture Lines & Gear

![](_page_10_Picture_14.jpeg)

#### Flag Markers

Flag markers are available in 3 flag sizes:  $1-5/8^{\circ} \times 1^{\circ}$ ,  $1-7/8^{\circ} \times 1-1/8^{\circ}$ , and  $2^{\circ} \times 3^{\circ}$  and lengths of  $3^{\circ}$ ,  $6^{\circ}$ ,  $9^{\circ}$  and  $18^{\circ}$ . They are available in 5 UV resistant colors for easy identification and may be hot stamped with company names, phone numbers or serial numbers. These are rated for 120 lb. tensile strength.

#### Weather Resistant Zip Ties

Zip Ties are UV weather resistant and offer easy, fast and economical installation for gear, color coding or to seal bags. Sizes range from 4"-60" in length and are 18 lb. to 250 lb. tensile strength.

#### **Stainless Steel Cable Ties**

Stainless Steel cable ties endure extreme temperatures and severe environmental conditions. They are available in 200 and 350 lb. tensile strengths as well as sizes from 5" to 60".

#### Multi-Purpose Cable Ties

Multi-purpose cable ties are available in 18, 40, 50, 120 and 175 lb. tensile strengths, as well as a wide range of lengths. They are also available in a wide range of colors for marking and identification purposes.

#### **Custom Services**

For custom identification, we offer high quality hot stamping on all nylon cable ties, including the Flag Markers.

# Call and mention this ad to receive a discount.

Contact us for questions, samples or sales inquiries: Andy Moss, <u>amoss@nelcoproducts.com</u>, 800-346-3526 x136

## NAVIGATING THE WATERS OF REGULATORY REQUIREMENTS

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## **Milford Aquaculture** Seminar: A Brief History

by Renee Mercaldo Allen, Kristen Jabanoski and George Sennefelder, NOAA Fisheries, Milford, Conn.

The Milford Aquaculture Seminar is a forum where scientists, aquaculture professionals, academics and regulators gather to share research findings and discuss challenges and advances in shellfish cultivation.

In 1975, shellfish farmers asked us to develop a technology exchange for aquaculture. In response, Walter Blogoslawski, of our science center's Milford Laboratory, led development of the seminar. "The interchange of ideas, research and hands-on experience among attendees has fostered shellfish industry growth," recalls Blogoslawski, who is now retired.

Over 46 years, this gathering has built a community of shared knowledge, trust and collaboration among government, universities, insurance companies, shellfish farmers, students and aquaculture equipment suppliers. The first joint biennial meeting was attended by 600 people. Since 2012 the seminar has partnered with the Northeast Aquaculture Conference and Exposition (NACE) to hold both meetings concurrently. Current conference chair Lisa Milke of the Milford Laboratory notes:

"This regionally important conference continues meeting its mission to enhance aquaculture development."

This conference makes the latest scientific findings directly available to shellfish farmers to support the growth of sustainable shellfish aquaculture. The 41st Milford Aquaculture Seminar will be held in conjunction with NACE January 12-14, 2022 in Portland, Me.

![](_page_11_Picture_7.jpeg)

#### 2022 NACE/ **Milford Aquaculture** Seminar

#### January 12-14, 2022 Holiday Inn by the Bay Portland, Maine

concurrent sessions on all aspects of aquaculture

multiple workshops and technology transfer sessions

field trips to area farms and research facilities

trade show featuring 40 vendors

www.northeastaquaculture.org

![](_page_11_Picture_15.jpeg)

"We got into oyster farming because we feel it's our duty to take care of the planet. The coalition strengthens our voice, our advocacy, and the viability of the shellfish industry."

Climate

Taryn Brice-Rowland, Rogue Oysters

learn more and join at www.nature.org/shellfish4climate

![](_page_11_Picture_19.jpeg)

## Shellfish Farmers Have a Critical Role to **Play in Disease Surveillance**

By Ryan B. Carnegie, Research Professor, Virginia Institute of Marine Science, William & Mary, Gloucester Point, Va.

Effective disease management is essential for maintaining aquaculture productivity and profitability. In part this means dayto-day avoidance and mitigation of impacts by endemic regional diseases, which for shellfish aquaculture along the Atlantic Coast include dermo, MSX, SSO and ROD diseases in oysters; QPX in clams; and emerging coccidian and trematode infections in bay scallops.

Just as important as managing the endemic diseases, however, is remaining vigilant with regard to emerging diseases. These can include potential new diseases, or changes in distribution or activity of an established regional pathogen, as we saw occur with both dermo and MSX in earlier decades. But how can we ensure that we're conducting sufficient disease surveillance to rapidly detect the presence of emerging diseases, given the vast scale of the U.S. shellfish aquaculture industry?

#### If you see something, say something

The short answer is that we cannot, unless the industry is fully engaged with the aquatic-animalhealth community to bring unusual observations to our attention. Farmers who work in the hatcheries and the nurseries and the field every day are in a position to notice that something is amiss: such as higher than expected mortality for a particular location and time of year. Growers play a critical role in detecting disease and bringing concerns to the attention of pathologists.

Many of you in industry already are highly engaged with the pathology community. As a case in point, the samples we have received in recent years from Atlantic and Gulf oyster farms have been fundamental in shaping our understanding of the emerging concern that early summer (sometimes called "triploid") oyster mortality represents. We now know that early summer mortality is not caused by an emerging pathogen that needs to be controlled in some way, but rather is the result of some confluence of genetic or physiological and environmental factors that we need to better understand. We have also learned that this is not a local issue, for example for Virginia, but rather a problem facing growers along all U.S. coasts.

The message here is to encourage continued and expanded engagement of industry with the

## Continued from page 12 Disease Surveillance

pathology community. If you see something unusual—for example, higher oyster or clam mortality than you would expect, or shellfish not growing well—don't hesitate to contact your extension agent or a pathology lab directly to arrange for appropriate sampling and analysis. While most of our labs need to charge fees to offset the costs of "business as usual" seed certifications, we customarily do not charge for analyses related to investigations of disease events or other problems, so as not to impose any barriers or discourage growers from alerting us when the issue may be something as important as an emerging disease.

Our labs exist to support shellfish aquaculture, and to ensure this industry can grow sustainably despite the ongoing challenges imposed by diseases. Never hesitate to reach out whenever and wherever shellfish health problems on your farms arise.

![](_page_12_Picture_3.jpeg)

RYAN B. CARNEGIE/VIMS

A sample of farmed oysters submitted for investigation of early summer mortality in North Carolina in 2019. As is typically the case with these enigmatic events, the survivors illustrated in the photo were in excellent condition and showed no obvious signs of disease.

![](_page_12_Picture_6.jpeg)

![](_page_12_Picture_7.jpeg)

**Global Leader in Live Feed Bioreactors** 

![](_page_12_Picture_9.jpeg)

### We Need Good Data— Now More Than Ever

Long-time readers of this newsletter are probably sick of hearing me plead for good data, but I cannot overstate how important it is for every grower to fill out the U.S. Department of Agriculture (USDA) <u>Census of Agriculture/</u> <u>Aquaculture<sup>1</sup></u> and to participate in economic surveys whenever they come your way. You may have reservations about sharing your farm's data with the government, but federal law guarantees that your individual informa-

Your Voice Matters Be counted in the 2022 Census of Agriculture.
New to aquaculture or ag census? Sign up today:
www.agcounts.usda.gov/getcounted
United States Department of Agriculture National Agricultural Statistics Service

tion will be kept confidential—only tabulated totals are published in the census. Your data cannot be used "for the purposes of taxation,

# HOT AQUACULTURE NEWS!!

![](_page_13_Picture_5.jpeg)

*Fish Farming News* is the aquaculture industry's national newspaper, devoted exclusively to coverage and the betterment of domestic aquaculture.

Content is geared toward active commercial fish and shellfish farmers, covering all major commercially cultured species, in freshwater and saltwater, warmwater and coolwater, and both open and closed production systems.

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![](_page_13_Picture_11.jpeg)

## Preserve the Quality of Your Live Product

The Sæplast DWS352 PUR multi-purpose container is ideal for the storage and purification of live oysters, clams and mussels. An even flow of water is maintained resulting in the perfect oxygenation of each individual shellfish. Like all Sæplast containers, the DWS352 container is ergonomically designed for maximum strength, ease of handling, stacking, and optimum hygiene. They are designed so that they stack perfectly together with or without lids.

- High water flow suitable for shellfish cleaning
- Patented water circulation system for maximum flow of water optimizes oxygenation
- Integrated water channels no need for external piping
- Save floor space easy to stack provides great stability
- Drains to empty 100% in the event of a power failure

![](_page_13_Picture_19.jpeg)

PUR

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investigation or regulation," and cannot be exposed through Freedom of Information Act requests. It's understandable that some growers might be reluctant to provide full disclosure to the tax man, but I hope that you will read on and reconsider how crucial it is for you to do your part in painting a true picture of the state of our industry.

#### Crop insurance and relief funds

Recently I was interviewed by a group developing pilot shellfish-crop-insurance programs for the USDA Risk Management Agency and was surprised to learn that they were consider-

ing leaving two states out of the program because the landings data were so poor. Some states don't separate wild-harvest landings from farmed, and some have developed interesting definitions that don't jibe with the rest of the country. Insurance companies can't formulate decent crop-insurance programs without reliable data.

A few states have adopted mandatory landings reporting through NOAA's Standard Atlantic Fisheries Information System (SAFIS), a coast-wide fisheries data collection platform that lets states track all landings of quota-managed species. These data are aggregated and no one (but you) is able to query the database and figure out what you sold. This information was incredibly valuable to growers who needed to document their sales history to file claims for federal relief checks when the pandemic collapsed our markets. I hope we never have a market disruption like that again, but then I have been hoping to win the lottery for years, and hope is not a great business strategy.

Shellfish growers who experience some types of weather-related loss are now eligible for Emergency Assistance for Livestock, Honey Bees and Farm-Raised Fish (ELAP) disaster relief from USDA. But to make a claim you will need solid records showing all the seed you purchased and all the animals you sold so the adjuster can estimate the value of the lost inventory. Just as important, the Farm Service Agency in each county will need records to guide their estimates of the value of different sizes of seed and the background mortality rates that different growers can expect in different types of gear. Without solid data these estimates are likely to result in disappointing payouts.

Both firms developing the shellfish crop-insurance programs are talk-

## Continued from page 14 We Need Good Data

ing about requiring three to five years of planting and harvest data for any grower who wants to sign up. I strongly recommend getting on board with a software program like <u>SmartOysters</u> so you have this type of data ready to go when the programs are rolled out. (Check out their ad on page 9; ECSGA members who sign up before Jan. 31, 2022 can get 50 percent off their first three months.)

The real reason I want better data is so I can speak about the value of our industry with confidence when I talk to resource managers and politicians. I need to be able to document the value of our sales and the downstream economic impacts if I want to garner support for science or investments in programs that we all use. I try to gather all the state data I can each year, but in some states those data are little more than a wildassed guess. We can do better.

-RBR

1. <u>www.agcounts.usda.gov/static/</u> <u>get-counted.html</u>

![](_page_14_Picture_5.jpeg)

## From Seed to Shuck MAKE 2020 YOUR BEST SEASON!

For more than a decade, we've created proven systems to produce great-tasting, fast-growing oysters. Raise your seed using nursery gear designed by watermen for maximum results

![](_page_14_Picture_8.jpeg)

Nursery Tank Increase stocking density with proven, turn-key system.

![](_page_14_Picture_10.jpeg)

**Flupsy** Grow large quantities of seed in our high-efficiency upweller.

![](_page_14_Picture_12.jpeg)

**Oyster Tumbler** Sort, wash and size oysters for market or further grow-out.

![](_page_14_Picture_14.jpeg)

**Get in touch!** (410) 397-3664 HoopersIsland.com This Spring Turn to Hoopers Island Oyster Company for Great Grow-Out Gear & Processing Equipment

## **ECSGA Membership Categories and Dues**

Growers, dealers and equipment suppliers enjoy full voting rights. (If you are both a grower and a dealer simply ask yourself where most of your revenue comes from.) If you don't fall into one of these industry categories please consider joining as a non-voting associate member.

Member Type	Gross Annual Sales	Dues	
Grower	\$0 to 50,000	\$100	
Grower	\$50,000 to \$100,000	\$200	
Grower	\$100,000 to 300,000	\$500	
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	

and the a

Because ECSGA is a 501(c)(6) non-profit trade organization, a portion of your membership dues may be tax deductible as a business expense; please contact us for details.

You can pay online using PayPal or your credit card on our website ECSGA.org or mail this form with your check to:

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Member Type and Level\*\_\_\_\_\_

\* Rest assured your sales information will be closely guarded and will not be shared!

# Plastic Corrugated Boxes!

![](_page_15_Picture_14.jpeg)