# East Coast Shellfish Growers Association

*The East Coast Shellfish Growers Association represents over 1,000 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

## Winter's Hard Work Starts to Bear Fruit as Spring Arrives

Executive Director Bob Rheault

It has been a tough winter for many of us and I, for one, can't wait for warmer weather and a cessation of these crazy storms. It has also been a busy winter for the ECSGA, and we have enough developments in the shellfish world to fill two newsletters. I am not sure where to start.

Last summer we hired lobbyist Matt Mullin of High Street Strategies (thanks to generous contributions from many of our members) to help us push some of our legislative priorities in Congress. The results have been pretty impressive so far, but much work remains if we are to see real progress.

In February we sent a large team of 17 growers to DC for our thirteenth year of staging the Walk on the Hill. (See my wrap-up discussion below). Among other things, we strongly advocated for a bill that has been submitted on our behalf in the House that should substantially reduce the cost of injury insurance for aquaculture employees. (See story on page 7).

We will continue to seek a champion for companion legislation in the Senate, and then we will need an all–out push by our members to build support by contacting their elected representatives.

In March we got word from the FDA that the first steps of an effort to renew trade with Europe have been initiated (finally!) and we are cautiously optimistic that we could see the first shipments of shellfish sent to a limited number of EU states as early as this fall (See story on page 13).

Lastly, members should keep an eye out for emails marked "Industry Only," with updates on issues that are still too sensitive for public consumption. Spring is here, I just hope it starts to feel like it soon!

## Walk on the Hill 2018

*by Robert Rheault,*
*ECSGA Executive Director*

The 13th time was the charm, as a group of dedicated ECSGA members donned business attire and traveled to Washington, D.C., for the annual Walk on the Hill. This year 17 of us teamed up with a dozen growers from the Pacific Coast Shellfish Growers Association (PCSGA) to educate our elected representatives about industry priorities. Combined we hit nearly 100 congressional offices and federal agencies, delivering an optimistic message of shellfish aquaculture as a growing source of sustainable seafood, and a driver of good jobs and economic development in rural coastal towns across the country.

As a result of carrying on this important work over 13 years we have managed to cultivate valuable relationships in many key offices. A good number of senators and representatives know about our issues before we even go in the door. Unfortunately, most of those issues remain the same year after year. For instance, we always request that appropriators hold the line on the budget items we care about, such as funding for: Sea Grant, the National Marine Fisheries Service (NMFS) Aquaculture Program, the Saltonstall–Kennedy grant program, the Sea Grant Marine Aquaculture Research program, Ocean Acidification research and the Regional Aquaculture Centers.

This year we raised a few new topics to discuss. We are seeking a tweak to the Merchant Marine Act that would exclude aquaculture workers from the definition of "seamen," which would save our members thousands on their employee liability insurance. A bill was submitted on our behalf by Rep. Mark Sanford (R–SC). The Shellfish Aquaculture Improvement Act (HR–5061) would achieve this simple one–line fix. Right now we are collecting co–sponsors and hope to have a companion bill in the Senate soon. You can help by calling your congressional representatives and encouraging them to get on board.

ROBERT RHEAULT

ECSGA Hill walkers and their PCSGA counterparts emerge after the first of 100 meetings on their annual pilgrimage.

We are also seeking a change in the Farm Bill that would tweak the available crop insurance programs so that aquaculture operations could actually take advantage of them. As with terrestrial farming, our crops are vulnerable to disease, storms, predators and all kinds of bad weather. While many of us have learned this the hard way, an affordable and effective crop insurance program (similar to some of those available for row crops) would go a long way towards helping growers weather a major loss.

For the past seven years we have been barred from

— *Continued on page 8*

## Member Profile:

# SmartOysters

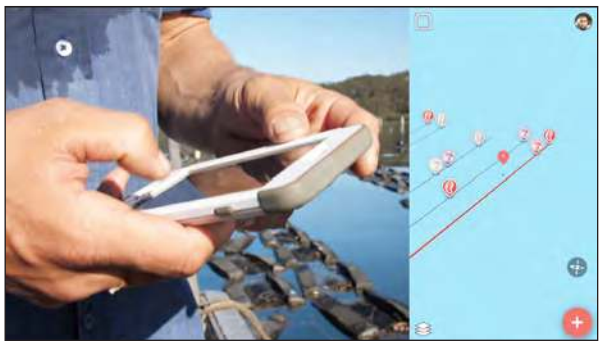
*by Colin Bridges,*
*Sales & Business Development, SmartOysters*

SmartOysters is a complete farm management system that is transforming the global oyster, mussel and wider aquaculture industries. The system helps growers rapidly improve productivity, profitability and resilience. With SmartOysters you can quickly and efficiently increase the scale of your operations without losing control; or simply use it to manage your existing farm with a lot less stress.

Co–founder Ewan McAsh owns and manages an oyster farm on the Clyde River in Batemans Bay on Australia's southeast coast. Ewan helped develop the app to solve an all–too–familiar problem of farm management: struggling to manage an ever–growing number of tasks using a whiteboard and memory.

Like many farmers, Ewan felt as if he was losing control of the day–to–day management, and the quality of his product. Even on small farms, it doesn't take much to miss a dry or a grade. The consequences can be catastrophic for the farm's viability and financial success. A recent example of a forgotten task (flipped baskets) on a small farm resulted in an estimated $250,000 worth of lost stock.

SmartOysters was created to solve that problem. It provides you with the ability to:



THISISSMARTOYSTERS.COM

You can reduce your stress by scheduling critical tasks and run your farm from anywhere in the world.

- ❑ Easily record stock movements;
- ❑ Know where your stock is at all times;
- ❑ Schedule grading, drying, flipping and other critical tasks;
- ❑ Never forget another task;
- ❑ Add real value to your farm; and
- ❑ Run your farm from anywhere in the world.

All you need is a farm and a smartphone!

Launched in March 2017, SmartOysters has already been snapped up by farmers across Australia and the United Kingdom. It is also being applied to mussel and seaweed farms. By the time you read this, SmartOysters will be in use in the U.S. and New Zealand.

With demand for quality seafood growing daily, this technology will help ensure that you remain competitive without increasing your stress levels.

Jase Finlay, the farm manager at McAsh Oysters, says, "Everything is instantly backed up so there's nothing getting lost or forgotten. You can go home at the end of the day knowing your tasks, schedules and data have been recorded. You don't have to muck around with paperwork or anything like that. I'd hate to go back."

Run your farm. Don't let it run you!

To learn more about the app and what it can do for you visit www.thisissmartoysters.com or contact Col Bridges at colin@smartoysters.com

THISISSMARTOYSTERS.COM

To keep track of your product in the field from anywhere in the world, all you need is a smartphone.

# Milford Aquaculture Seminar Highlights

*by Robert Rheault,*
*ECSGA Executive Director*

For those of you who were unable to attend the 38th Milford Aquaculture Seminar January 8–10, here are some of the highlights. First of all, kudos to the organizers, Lisa Milke and her crew at NOAA's Milford Lab. Pulling together a conference of this quality and magnitude is no small feat, yet they regularly organize and execute an affordable and informative meeting that brings together members of industry, regulators and scientists.

This year's seminar attracted several of NOAA's top administrators, illustrating their commitment to advancing aquaculture, increasing production and growing job opportunities in our industry. It featured a number of fascinating and informative presentations, and I can honestly say that I learned a lot. (High praise from someone who thinks he knows everything already).

In keeping with tradition, the seminar officially began with a lively welcome reception featuring oysters donated by Mook Sea Farm, Pemaquid Oyster Company, The SPAT Project and Cedar Island Oyster Farm, as well as littlenecks from Briarpatch Enterprises. Thanks to our generous donors, no shellfish lovers left the kickoff event hungry.

### Research Areas

The six presentations on kelp culture reflected growing interest in this relatively new crop. Work is underway to examine strain improvement, sanitary regulations, hatchery techniques and potential renewable fuel production. It will be interesting to see if the more lucrative food markets can keep up with expanding production such that the economics of production make sense. As growers and researchers continue to work out the bugs and perfect hatchery and culture methods, production is steadily becoming more reliable. It will be challenging for kelp processing, marketing and distribution to keep up with production, as many New England growers are putting in new lines for kelp.

Permitting challenges stemming from fears of right–whale entanglement continue to stymie the development of offshore mussel farms, even as a small demonstration farm operated by Salem State University off Cape Ann, Mass., continues to work out the bugs and document the viability of their approach. If we can ever get permits to try this on a large scale, I am confident that mussels will make a significant contribution to shellfish production in New England.

### Milford Lab research

A steady stream of Milford Lab researchers stepped up to describe projects aimed at answering several of shellfish aquaculture's most vexing questions.

Gary Wikfors described a series of experiments designed to determine if diploid oysters process food resources differently from their triploid cousins. A team of Milford scientists traveled repeatedly to Virginia to learn why triploids appear more susceptible to summer mortality. They found that over a range of seasons, locations and food types, the two types of oysters filtered and assimilated food at similar rates. Since triploids and diploids are genetically identical (except for the extra set of chromosomes in triploids), it makes sense that few differences were observed between the two groups. Those differences are likely attributable to how the animals process energy and differences in certain metabolic processes, such as reproduction.

Shannon Meseck used video microscopy of shellfish gills under varying $CO_2$ concentrations to look for physiological reasons for shellfish responses to acidification stressors. Ciliary response to $CO_2$ manipulation could shed some light on the mechanisms that elicit variable responses in shellfish exposed to high $CO_2$, or reduced carbonate saturation.

Milford Lab researchers are also examining the use of shellfish culture gear by fish. Renee Mercado–Allen has a team using GoPro cameras to document fish behavior around oyster cages, while Yuan Liu is sampling eDNA (environmental DNA that is separated from organisms into the surrounding environment) to look for traces of fish that frequent various habitat types. These researchers are documenting the habitat value of shellfish culture gear to help us evaluate this important ecosystem service.

— *Continued on page 11*

GEORGE SENNEFELDER/NOAA

Around 175 people attended the Milford Aquaculture Seminar in early January. This year many top NOAA administrators joined scientists and industry members for the three-day conference.

# An Introduction and Invitation to the Shellfish Growers Climate Coalition

*by Bill Mook, Mook Sea Farm, Walpole, Me.*

Like most farmers, shellfish growers do what we do in part because we love that our livelihoods are connected so deeply to the natural world. That's why so many of us are committed to conservation issues — caring for the ocean environments that we work in is important to us not just professionally, but personally. Shellfish growers have long been concerned about and involved in a lot of issues, from water quality to invasive species. Now it is becoming increasingly clear that we have "front row seats" to a sobering drama brought to us by the world's addiction to fossil fuels.

The scientific evidence linking changes in our climate and the chemistry of our oceans to greenhouse gas emissions is irrefutable. Period. As one who paid attention to predictions made 20 years ago by climate scientists, I find it especially compelling that those forecasts have been so accurate. Atmospheric and ocean temperatures are warming. Sea level is rising. Seawater is becoming more acidic. Storms are more intense, causing more damage and more freshwater runoff into coastal waters. The effects of these changes are already costing us, and while the implications for our future are unclear, they unquestionably merit our close consideration.

So just how is carbon pollution costing us? By now we all know about the near–collapse of eyed larvae production on the West Coast 10 years ago. I have certainly trumpeted the problems we experienced at Mook Sea Farm, on the East Coast, a few years later. It is true that there are regions where hatcheries seem to produce larvae, and natural recruitment of Eastern oysters occurs even when $CaCO_3$ (calcium carbonate) saturation levels are apparently very low.

CRAIG F. WALKER/BOSTON GLOBE

Waves crashing into houses in Scituate, Mass., during the first of four nor'easters that hit the area in the month of March. Scientists say that storms like this one may become more severe and occur more frequently as the planet warms.

But it is also true that in the Pacific Northwest, and at least for Maine's Damariscotta River on the East Coast, satisfactory larval production depends on buffering larval cultures. The costs to those of us affected by this have been real and substantial. Clearly there is more research to be done if we are to understand the impacts of ocean acidification, how future production and recruitment may be affected in different coastal waters, and what coping strategies we might employ.

Warming waters pose their own set of threats and questions. Control of *Vibrio* illnesses and shellfish safety is now undeniably a major cost for the shellfish industry. While some may doubt the link between increases in *Vibrio* abundance and increasing temperatures, there is strong anecdotal evidence, as well as peer–reviewed research, making this connection. In Maine, we always believed we were "exempt" from the big oyster diseases because of our long, cold winters, yet Damariscotta River oyster farms were pretty much wiped out by MSX in 2010. In the preceding year (or two) oyster seed was illegally imported from an area where MSX was endemic. This was followed by the warmest winter I remember since starting the business in 1985. Then the oysters started dying. We need to understand if this kind of event is coincidence or if it is related to climate change.

Consensus is growing in the scientific community that warmer surface temperatures caused by climate change are leading to more and more intense storms, especially in the North Atlantic. The body of science that is able to quantify the increases in storm intensity and storm damage due to global warming is growing. We are seeing ever increasing damage, not only from winds and flooding, but also from storm tides exacerbated by rising sea level. For shellfish growers, increased runoff can mean water with a lower pH and costly harvest closures to ensure shellfish safety. Big storms disrupt transportation and sale of our products to customers shut down by flooding and storm damage.

The need for action is urgent. Sadly, even though a substantial majority in the United States believe that climate change is a problem and humans are causing it, those who can and should act to reduce carbon dioxide emissions are gridlocked. The U.S. Congress failed to pass a carbon cap–and–trade bill in 2009, and efforts to create federal policies that might curb carbon emissions have been thwarted at every turn. The hope that we might see action when the United States joined over 180 other nations in the Paris Agreement on climate change

*— Continued on page 10*

## 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 3 million | $1,000 |
| Grower | Over $3 million | $1,500 |
| Shellfish Dealers and Equipment Suppliers | | $250 |
| Restaurant Ally | | $100 |
| Non-voting Associate | | $50 |

You can pay online using PayPal or your credit card on our website www.ECSGA.org.
Or you can mail in this form with your check to: ECSGA, 1623 Whitesville Rd, Toms River, NJ 08755.

Name _____

Company _____

Street Address _____

City, State, Zip _____

Email _____

Phone _____

Member Type and Level*_____

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

# Oyster South Symposium Whips Up Excitement in Charleston

The 2nd annual Oyster South Symposium, held February 9-10 in Charleston, S.C., attracted upwards of 200 attendees, including dealers, gear suppliers, scientists, extension agents, chefs, shuckers, members of the media, and 93 oyster growers. Oyster South is a non-profit organization dedicated to the advancement of oyster farming in the southern U.S., from Texas to North Carolina.

BETH WALTON/OYSTER SOUTH

The "Shucking Show and Tell" reception on Friday night was a big hit with attendees.

The first day of the meeting focused on production techniques and farm operations, while the second day tackled subjects pertinent to the interface between growers and their customers, such as marketing and communicating with chefs.

Eager participants enjoyed 14 varieties of oysters from the South Atlantic and Gulf during a "Shucking Show and Tell" social event on Friday night. ECSGA board member Julie Davis co–organized the event, and said that a highlight for her was hearing one of Charleston's top chefs say that he is ready to fill his raw bar with all Southern oysters.

"This speaks to the quality of the product we are growing in the region. We've got excellent oysters and a great groundswell of support building in this industry. It's very exciting," Davis said.

ECSGA Executive Director Bob Rheault gave a talk that included an introduction to the Interstate Shellfish Sanitation Conference (ISSC) and the process the shellfish aquaculture community uses to develop the rules that help prevent illness in consumers who eat raw product. Referring to himself as the "*Vibrio* Evangelist," Rheault said, "We may not like all the rules, but our robust markets would disappear if consumers didn't have confidence in our products."

Rheault was struck by the palpable excitement in the air at the conference. "As each of these states works to clear their regulatory hurdles, we are seeing eager entrepreneurs establishing farms, and ready markets eager to serve high–quality local seafood," he observed. Of the "Shucking Show and Tell" Rheault proclaimed all the oysters excellent, noting that "the pride these growers have in the quality of their product was evident. It is exciting to witness the birth of a new oyster farming industry in the South."


BETH WALTON/OYSTER SOUTH

ECSGA South Caroliina board member Julie Davis gave a talk on disaster preparedness.

# Are You Paying Too Much for Insurance?

*by Robert Rheault,*
*ECSGA Executive Director*

If you have employees working on the water then you should really be carrying Merchant Marine Act (MMA) insurance in case one of your employees is injured on the job. The problem is that this insurance can be very expensive. In some states these policies can be three times as expensive as comparable coverage under state workers' compensation insurance. We are working on a fix that could save you thousands of dollars, but we need your help.

The Shellfish Aquaculture Improvement Act (HR–5061) was recently submitted on our behalf by Rep. Mark Sanford (R–SC). This simple act would exclude aquaculture workers from the definition of "seamen," meaning that employers could insure their employees under state workers' compensation insurance instead. If we can get this passed into law it will reduce employer liability and simplify access to medical care for injured employees.

Right now we are collecting co–sponsors for the bill in the House and we are working on getting a companion bill introduced in the Senate. You can help by calling your congressional representatives and encouraging them to co–sign and support HR–5061.

This is not asking your congressional representatives for much. We have yet to find anyone opposed to the Act. In fact, Congress granted a similar exclusion for aquaculture workers from the Longshoreman's and Dockworkers Act in 1984. It makes sense since the Merchant Marine Act of 1920 was intended to protect workers injured on the high seas where state workers' compensation insurance is not applicable. Our employees work in state waters, often in knee-deep water working from small skiffs.

So how can you help? To get traction it would help to have a raft of co–signers on board. There are controversial provisions of the MMA that pertain to how much U.S. steel goes into a U.S.–flagged vessel, and mandating that only U.S.–flagged vessels can transport goods between U.S. ports. Our bill has nothing to do with these provisions. Congressional representatives will feel more confident voting for this Act if they see that many others have co–signed.

THE PERFECT STORM/WARNER BROS.

The Merchant Marine Act of 1920 was designed to insure seamen injured on the high seas, not aquaculture workers laboring in shallow, inshore waters.

It is easy — and important — and it should only take a few minutes to look up your representative online and give the office a call (either in the district office or in DC or both). Tell the staff about the aquaculture industry in the district, and explain how HR–5061 could save your firm thousands of dollars a year. Ask them to urge your representative to co–sign and support the Act. (If they already have co–signed please thank them.) Get the name and and e–mail of the person you talked to, and please pass it along to me so I can follow up.

Won't you take just a few minutes to save a pile of cash?

## New Website is Live

ECSGA.org has a new look, with a responsive theme, so it now works well on mobile devices, laptops and desktops.

New growers can find great advice like the Rookie Mistakes or Marketing presentations, as well as links to a lot more content. More established growers may want to brush up on Vibrio issues or implement our Best Management Practices. Need to find a hatchery or an extension agent in your state? It's all there and more.

Not everything has been moved over to the new site yet, so if you can't find something let us know, and let us know what you think.

— *Continued from page 1*

## *Walk on the Hill 2018*

selling shellfish to the European Union because of a dispute, initiated by our Food and Drug Administration (FDA), about shellfish sanitation standards. After years of dithering, we asked the FDA to attempt to break the logjam by suggesting a baby step forward to restart the delicate negotiations: allow shellfish imports from EU "Class A" pristine waters. Our inspectors audited the EU sanitation programs and their inspectors looked at ours, and all agreed that the compromise was workable. A little over two years ago we were told that all that remained was to have the rule change listed in the Federal Register.

This must have presented quite a challenge, because we had seen no movement in years. We tried congressional pressure, letters, hearings — all to no avail. Then finally, on March 9 we got word that the notice of public comment had been published in the Federal Register. (See update on page 13)

ECSGA team members meet with Rep. Bill Keating of Massachusetts in his office in the Rayburn House Office Building. Keating's district includes Plymouth, New Bedford and Cape Cod.

The limited agreement was just one small step. Initially only two states (Massachusetts and Washington) will be allowed to ship to the EU, and only two EU nations (the Netherlands and Spain) will be allowed to ship to the U.S. We have assurances from the FDA that since both U.S. and EU sanitation programs affect member states uniformly, other U.S. states and EU nations should be able to be added "quickly."

Apparently, the negotiators felt that striking an agreement that encompassed all U.S. states and every EU country was simply too daunting. As a result, ECSGA members who are not from Massachusetts hate the deal because it gives those growers an unfair advantage in establishing markets. This is true, but I believe this approach has cracked open a door that was essentially locked for seven years, and a little patience could soon pay off for the rest of us. I didn't pick the states, so don't hate on me. Of course, the EU will have to amend their regulations as well, and they are not exactly known as exemplars of bureaucratic efficiency. I have little faith that this will run smoothly or quickly.

I have seen oysters in European restaurants at eye–popping prices, and we know they love our shellfish, so hopefully the market will be lucrative enough to support the expense of shipping live rocks "across the pond." If we are going to keep ramping up production at double–digit rates we will need to find new markets to avoid a price collapse. I see European markets as a key to our future growth.

As we've done most every year we (with the PCSGA) held a well–attended reception with the Wine Caucus and the Shellfish Caucus, where we shucked a couple of thousand oysters for an eager crowd of representatives and top staffers. It is always a fun event that allows us to cement the valuable relationships we have developed over the years.

For all those who did not take part in our Walk on the Hill festivities, please take a minute to thank our members who took precious time away from their real jobs to do this important work. We try to get one member from each state, and next year we will need to get some folks from New Hampshire, Georgia, South Carolina and Florida so we can engage with key congressional offices in those states.

This year we were guided by our lobbyist, Matt Mullin of High Street Strategies. Matt has been working with us for nearly a year now and his knowledge of the inner workings of Washington has proven invaluable in getting our bill submitted and seeing that our issues don't get buried by the flood of other concerns that every office struggles with in DC. Those of you who may have questioned the value of our hiring a lobbyist can rest assured that Matt's hard work has played a huge role in our success.

### Special Thanks to Our 2018 Hill Walkers

Jeff Auger, Mook Sea Farm, Damariscotta, Me.

Chris Sherman, Island Creek Oysters, Duxbury, Mass.

Matt Behan, Behan Family Farm, Charlestown, R.I.

Ben Goetsch, Briarpatch Enterprises, Milford, Conn.

Chuck Westfall, Thatch Island Farms, Amityville, N.Y.

Matty Gregg, Forty North Oyster Farms, Belmar, N.J.

Tal Petty, Hollywood Oysters, Hollywood, Md.

Johnny Shockley, Hoopers Island Oyster Co., Cambridge, Md.

Anthony Marchetti, Rappahannock Oyster Co., Topping, Va.

Dan Grosse, Toby Island Bay Oyster Farm, Chincoteague, Va.

Kim Huskey, Cherrystone Aquafarms, Cheriton, Va.

Jay Styron, Carolina Mariculture Company, Cedar Island, NC.

Mike Oesterling, Shellfish Growers of Virginia, Gloucester, Md.

Paul Zajicek, National Aquaculture Association, Tallahassee, Fla.

Andrew Rubin, Rubin, Winston, Diercks, Harris & Cooke L.L.P., Washington, DC.

# BILLION OYSTER PARTY

On April 27 the Billion Oyster Project will host its 5th annual Billion Oyster Party, benefiting its work to restore 1 billion oysters in New York Harbor by the year 2035. The theme of the evening is, "It takes a city to restore New York Harbor."

Bites and samples will be provided by 20 top NYC restaurants and 50 oyster farmers from across the nation. Students from the New York Harbor School will lead games and skill–building activities that show guests just how tricky restoring New York Harbor can be, while Professional Diving students will guide guests through an exploratory activity demonstrating what it feels like to deep–dive in the naturally murky waters of New York City.

When Henry Hudson entered New York Harbor in 1609, he had to navigate around more than 220,000 acres of oyster reefs. With the help of The Lobster Place and donated oyster shells from more than 60 restaurant partners, the Billion Oyster Project aims to re–establish a self–sustaining oyster population by creating 100 acres of new oyster reefs in the harbor.

Launched in 2014 as a 501(c)(3) corporation in partnership with the New York Harbor School on Governors Island, the Billion Oyster Project is not only an ecosystem restoration program, but also an education movement aimed at teaching 1 million students about oysters' ability to filter water, provide habitat for many marine species, and help shield the city's shorelines from storm damage, protecting life both in and out of the water.

So far the project has planted 25 million oysters and engaged more than 6,000 students and 9,000 volunteers. The project's hands–on science and restoration curriculum is now being taught at 70 schools across the city.

BILLION OYSTER PROJECT

The Billion Oyster Project hopes to restore a self-sufficient oyster population in New York Harbor. The goal is to plant 1 billion oysters, establish 100 acres of oyster reefs, and teach 1 million students about the ecosystem services provided by oysters by the year 2035.

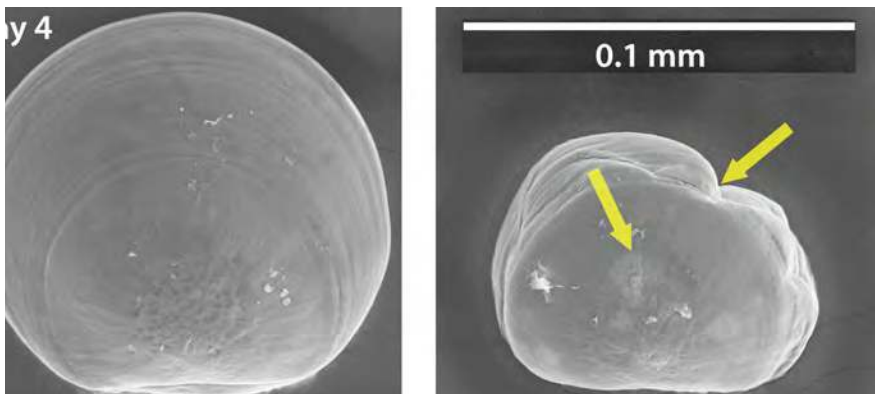
For more information visit
billionoysterproject.org

— *Continued from page 4*

## *Climate Change Coalition*

faded quickly when not even two years later the Trump administration announced its intent to leave the Paris Agreement and commenced the rollback of many regulations designed to control pollution, including carbon dioxide.

Consumers care about where their food comes from, and whether the foods they love will continue to be available to them. Policy makers recognize that seafood farming and fisheries are a significant source of jobs in coastal communities. Recognizing this, a group of seven growers, from both the East and West Coasts, have joined forces with The Nature Conservancy to form the Shellfish Growers Climate Coalition (SGCC).




TAYLOR SHELLFISH/OREGON STATE UNIVERSITY

Scanning electron micrographs of oyster larvae in normal ocean water (l) and acidic, carbonate-poor ocean water (r).

The SGCC is committed to shining a light on how climate change is already having a significant effect on food production in the United States, and using the stories of shellfish growers to start a broader conversation about the urgent need for climate action.

We'll be talking more about the SGCC at this year's National Shellfisheries Association meeting in Seattle, and all seven of our members will be out in full force to celebrate our launch at the Billion Oyster Party in Brooklyn, N.Y., on April 27. In the next ECSGA newsletter we will fully describe the coalition and its launch. Our hope is that we'll be able to convince you to join us.

The SGCC is looking for more members because this problem affects shellfish growers in every location and of every size, and because we may be in a unique position to grow the coalition to include other food sector companies across the country. Your participation in the coalition is vital to demonstrate to the public and to lawmakers that our industry as a whole is deeply concerned, about not just its prosperity, but its very survival. We need to demonstrate that climate change is not some nebulous concept of concern only to "environmentalists," but that it is a real and present danger to businesses and local economies.

For more information, reach out to one of our members, listed below, or our partner at The Nature Conservancy, Sally McGee.

Ryan Croxton, Rappahannock Oyster Company,
ryan@rroysters.com

Bill Dewey, Taylor Shellfish Farms,
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Steve Malinowski, Fishers Island Oyster Farm,
steve@fishersislandoysters.com

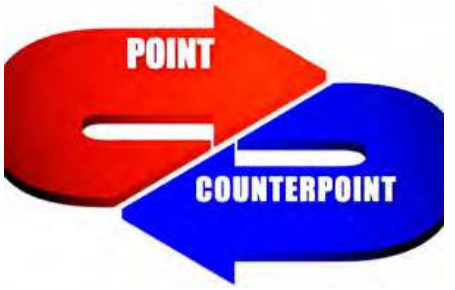
Sally McGee, The Nature Conservancy,
smcgee@tnc.org

Lissa James Monberg, Hama Hama Company,
lissa@hamahamaoysters.com

Bill Mook, Mook Sea Farm,
bill@mookseafarm.net

Terry Sawyer, Hog Island Oyster Co.,
terry@hogislandoysters.com

Chris Sherman, Island Creek Oysters,
chris@islandcreekoysters.com




We asked two ECSGA board members: *Can Aquaculture Co-exist with Recreational Users?*

*Steve Plant, ECSGA secretary and Conn. grower*

I believe that aquaculture leases/licenses should avoid conflicts with recreational shellfish harvesters and boaters. Commercial and recreational shellfishing interests should ***always*** be in harmony. Commercial interests provide seed stock for recreational areas, and the two groups almost always speak in a strong community voice for shellfish interests generally.

Growers have access to more areas than recreational shellfishermen because growers can use areas classified as conditionally approved or restricted, whereas recreational harvesters are limited to approved waters.

Proposed aquaculture operations involving cages and floating gear should avoid traditionally popular recreational areas. Public interests should trump private aquaculture. Having seasonal, semi-skilled and inexperienced recreational boaters motoring in and around gear is a recipe for disaster.

As shellfish farmers, we are part of a community. When one of us draws strong negative attention with a divisive permit application it reflects on all of us and can impact future applicants in neighboring communities. Bringing in lawyers always makes things worse. In Connecticut we are still suffering from the regulatory blow–back caused by a poorly conceived mega–aquaculture project that has long since gone bust.

As more and more startup shellfish farms compete for a shrinking share of usable bottom and potential growing areas, conflicts such as these are going to become more common. I have always been, and remain, a staunch supporter of shellfish aquaculture. But we do not live in a vacuum. We shellfish farmers need to respect that we operate within a public resource. Unlike most land-based farms, we do not own our growing areas.

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*Bob Rheault, ECSGA executive director and former R.I. grower*

When I proposed my first 2.3-acre lease in Rhode Island 27 years ago I was met with huge opposition from fishermen and waterfront homeowners. I had 600 letters of objection in my file. Fishermen claimed the area was thick with clams and that they made a living off the harvest of this prime shellfishing ground. One opponent claimed his kids would die when their shoelaces became entangled in my cages while waterskiing (in shoes?). All manner of environmental damage was alleged, and numerous boaters claimed my farm would be a hazard to navigation. Many people told me that I was a pariah and should never consider opposing the will of the public.

Having worked the area for several years, I knew these people were exaggerating. The bottom on my site was black anoxic mayonnaise and there was not a clam to be seen. The site was ringed by massive boulders that bore the scars of many a boat impact. No one who could read a chart would dare waterski there. My bottom cages were little different from lobster pots and fish traps.

I persisted and eventually sparked an industry that now boasts 75 farms and harvests $6 million in oysters — and it's still growing by 20 percent a year. An industry that cleans the water and provides sustainable seafood while employing hundreds. Had I caved in to public pressure, who knows if we would now have an aquaculture industry in Rhode island?

Today I worry that new entrants may screw things up for the established, successful firms by making a mess in the commons or getting people sick. We do have an obligation to have neat farms and to be good stewards of the commons. I don't advocate leasing in areas with established fisheries or in areas where we might conflict with recreational users, but I also believe that creative applicants can site small farms in heavily used waters. They just have to find the right spots.

— *Continued from page 3*

## *Milford Seminar*

Diane Kapareiko reported on a new pro–biotic bacterium that reduces *Vibrio*–related larval mortalities in hatcheries. She compared stable, freeze–dried and spray–dried formulations, and found that both appear to offer protection similar to what's afforded by live pro–biotic cells.

### Other research

In addition to the Milford Lab researchers, many other scientists also shared interesting work:

Bassem Allam from Stony Brook University led a large group in an effort to use marker–assisted selective breeding to identify lines of clams that are more resistant to the clam parasite QPX.

Tim Bowden from the University of Maine documented the prevalence of MSX in Damariscotta River oysters. Thankfully, the move to resistant lines has reduced mortalities even though the parasite appears to be well established.

Melanie Fuoco from Delaware State University showed how ratios of $N_{15}$ (a rare, stable nitrogen isotope) in oyster tissue can show whether nitrogen in coastal bays is coming from human wastewater or from agricultural runoff.

Dina Proestou (USDA-ARS) worked with a team to examine how different families of oysters respond to Dermo challenges. Some families appear more "resistant" and some appear to cut back on feeding when Dermo is in the water. These experiments offer hope that we can come up with Dermo–resistant lines of oysters similar to the MSX–resistant lines that have been developed.

I gave three talks (not recommended): one on the ECSGA's political and policy priorities, one on the outcomes of the fall ISSC meeting, and one describing efforts to rationalize interstate shellfish–seed–transfer regulations. We have two funded projects helping us reach the latter goal: one to develop a hatchery certification process that would allow hatcheries to avoid expensive testing on every batch of seed, and a second effort to develop a database to track pathology test results and map the established ranges for known shellfish pathogens.

As is typical of these meetings, much of the best information exchange happens over coffee or a beer between or after sessions. It is always good to catch up with other growers and hear about what is working and who is having problems. Most of the problems are usually regulatory challenges, so I always come away from these meetings with a new list of fires to put out. But above all I was struck by the depth, breadth and quality of the research efforts. We are blessed to have such a dedicated cadre of professional scientists working hard to address many of the most pressing needs of the shellfish aquaculture community.

GEORGE SENNEFELDER/NOAA

Sharing a laugh are Paul Doremus, who performs the duties of Assistant Secretary for Conservation and Management and serves as the Deputy Assistant Administrator for Operations at NOAA Fisheries, and Donna Lanzetta, founder and CEO of Manna Fish Farms.

# Island Creek to Consolidate Business Locations


BATTELLE

The Boston Globe reported on Nov. 22, 2017 that Island Creek Oysters purchased an 11-acre property on the Duxbury, Mass., waterfront formerly occupied by the Battelle Memorial Institute. Back in May Battelle announced that it had signed a purchase-and-sale agreement with developer Diamond/Sinacori, which was planning to build a development of single–family homes on the picturesque campus.

Instead, Island Creek bought the property from the developer with the intent of moving its existing hatchery, farm distribution and nonprofit foundation operations into one location. The Globe reported that:

> *"additional plans call for a retail outpost and a potential home for ongoing aquaculture research, education, and outreach efforts in keeping with the property's legacy, according to a statement by [Island Creek].*
>
> *"'After nearly 25 years of farming oysters here in Duxbury Bay, it is our hope that such a property will not only help create a permanent foundation for our business, but also be a hub for aquaculture here in the Northeast, and an integral part of Duxbury's historic waterfront,' [Island Creek owner Skip] Bennett said in a statement."*

Visit the Boston Globe to read the entire story.



# EU Trade Logjam About to Clear

The seven–year wait for the resumption of trans–Atlantic trade in shellfish just might be over. On March 9 the Food and Drug Administration (FDA) released a statement in the Federal Register welcoming public comment on their proposal to allow just two states, Massachusetts and Washington, to send shellfish to EU countries, while two EU countries, the Netherlands and Spain, would be allowed to ship to the U.S.

Some of our members who do not hail from Massachusetts or Washington are complaining that they are missing out on this trade opportunity. Unfortunately, the negotiators felt it was just too daunting to clear all the hurdles for every member state and country all at once, so they elected to start with a small step.


ROBERT RHEAULT

This menu from a seafood restaurant in Italy shows oysters fetching up to €7 ($8.50). Re-opening lucrative European markets to U.S. product could go a long way toward staving off market saturation on this side of the pond.

We are cautiously optimistic that this process will move forward somewhat faster than the many years it took to get to this point, and that mutual trade will resume shortly after the 75–day comment period has ended.

We have received assurances that additional U.S. states and EU nations may be added "relatively quickly." We have a national program that mandates a uniform set of sanitation regulations among U.S. producing states (as does the EU) so we are hopeful that this process will move along efficiently.

We look forward to opening up what we hope can be a lucrative market opportunity for our high–quality, sustainable shellfish products. We know that there is an appetite for our shellfish in the EU and we look forward to re–establishing trade in the near future. As we continue to increase production, it is important to identify new market opportunities so we avoid saturating U.S. markets.

— *RBR*

To submit comments on this issue visit www.regulations.gov, enter ***83 FR 10487*** in the search box, and upload your comment file or type directly into the comment input box.

The comment period closes on May 23, 2018 at 11:59 pm.

# Meet the FLOW N GROW™

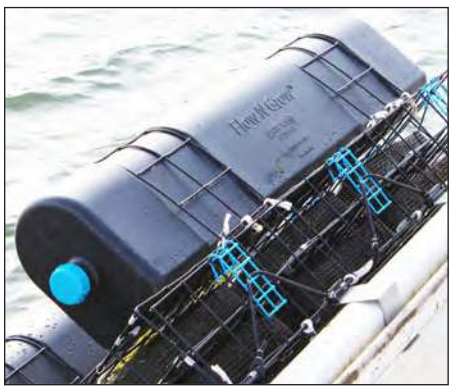
*by Bob Ketcham, Ketcham Supply, New Bedford, Mass.*

There is no denying that the top of the water column, where sunlight driving photosynthesis is strongest, provides the most nutrient–rich environment for the grow–out of your oysters. In fact, a Sea Grant Marine Extension Bulletin study published in May 2014 confirmed lower mortality and accelerated production rates for oysters grown in floating gear vs. bottom culture. For years growers have battled for use of the water column and floating–gear rights, trying oyster culture in floating bags, trays, buoyed lantern nets and multi–bag cage systems.

Imported multi–bag cage floats have been around for years, but now a second–generation floating system is available, designed and made in the USA. With a radically different design and patent–pending features, this new self–cleaning surface gear is easy to use and can enhance profitability.

In coming up with this new system, designers relied heavily on listening to input from folks in the field who had used thousands of the first–generation floats. These are some of leading first–tier growers, intimately familiar with the working advantages, as well as the inherent flaws, of the older designs in the real world of aquaculture on their farms. With this expert input, the new design was fleshed out, improving the performance and efficiency of the multi–bag, floating–cage system.

If you're not familiar with the design, the multi–bag floating system looks like a small pontoon boat with a vinyl–coated, wire–mesh cage designed to hold multiple oyster bags attached to two floats. When this pontoon boat is "capsized" the floats hold the oysters in the cages a few inches below the surface. When flipped with the floats underneath, the cage is raised above the water, allowing air and sunlight to kill off the



KETCHAM SUPPLY

The floats have a quick–release feature allowing them to be removed in the field, in case of damage or a need to sink the cages to protect the oysters from storm or ice damage.

secondary spat and bio–fouling on the cage, maximizing the flow of nutrient–rich water to the animals.

Cape Cod Oysters owner Al Surprenant was looking for improved buoyancy. By the time his oysters were approaching market size, the old six–bag cages didn't have enough flotation to keep the lower bags dry, defeating the self–cleaning properties. The new FLOW N GROW™ float has been designed with about 50 percent more buoyancy, but in a refined way that distributes this displacement to provide the most stable platform ever available to the industry. The greater flotation can support more weight, giving growers the option to use more bags without sacrificing fouling control.

KETCHAM SUPPLY

Growers using first–generation floating cages have expressed a lot of frustration in making repairs to damaged floats, which are permanently attached to the cages with clipped–on, single–wire strands, making it impossible to change out bad floats on the water. The offending cage has to be disconnected from the line, loaded onto the skiff, and brought ashore, keeping it out of production until repairs can be completed. But the state–of–the art design from Ketcham's has a patent–pending system that allows removal and replacement of floats, even on the water, in a few minutes.

Bill Mook of Mook Sea Farm says, "We are very excited to try the quick–release feature. We think it will save us a huge amount of time and allow us to keep more cages in continuous service."

Bob Boardman at Tarkhill Aquaculture pointed out another unexpected benefit. If the cages need to be sunk to avoid damage to the crop in the face of hurricanes or cold weather, it is no longer necessary to flood the floats — just use the quick-release feature to detach the floats. When it's time to raise the cages again, it's much easier without the additional weight of water–filled floats.

At Virginia's Cherrystone Aqua Farms, Tim Rapine feels the extra flotation and wider positioning of the floats on the cage in the updated design is key for his operation.

Cages with the floats moved out to the edges are more stable when flipped into the de–fouling position, and the complete cage, regardless of load, is always buoyed well clear of the water. Tim has chosen to receive his FLOW N GROW™ units as prefabricated kits for in–house final assembly at his Eastern Shore facility.

Growers in more exposed locations have had problems with the flexing of the single strand attachment design of the old imports. Repeated flexing from relentless sea action can fatigue these single strands to the point of failure. Super-duty, 8 ½–gauge, marine–grade, welded wire mesh, the same stuff used in the time–tested cages, has been used in the new design as an attachment mechanism that is rugged, much stronger, simple and effective on the water.

Ketcham Supply in New Bedford, Mass., is launching this enhanced new grow–out design after nearly a year of engineering and guidance from growers in the field. The new FLOW N GROW™ is available to suit the needs of the industry as floats, kits or finished units. The folks at Ketcham's have learned through long experience not to force customers into "a system," as each grant, grower and farm is unique, with different individual needs and site–related challenges.

Over the past eight or 10 years no one else has come close to supplying a fraction of these floating oyster–growing factories as Ketcham's. Every month numerous tractor–trailer loads leave New Bedford for points up and down the entire East Coast. Now with this newest innovation, Ketcham's will certainly continue to provide strong support for the shellfish aquaculture industry for years to come.

For more info about the FLOW N GROW ™ visit KetchamSupply.com.

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