I am happy to report that we had another highly successful trip to DC in January. Here are the highlights.

Growers from all three coasts met for a day and a half of strategy meetings under the auspices of the Molluscan Shellfish Institute, an arm of the National Fisheries Institute (NFI). NFI has been instrumental in setting up meetings, organizing our events and helping us define an effective political strategy. Many growers are also NFI members, and our membership with NFI is money well spent.

The East Coast contingent had thirty-odd scheduled meetings with Congressional and Senatorial staffers from ten East Coast states. We could have added a few more, but several offices are starting to limit meetings unless you come with a constituent. It is a real missed opportunity not to send at least one grower from each state to this event.

These are busy times in DC with the health-care debate sidelining most other substantive discussions. We introduced each office to our legislative agenda, the FDA’s raw oyster ban and our plans for a USDA-ARS Shellfish Breeding Center, which you can view on our website.

We also discussed our need for clean growing waters; our support for the Chesapeake Bay Program, the Long Island Sound Program and the National Estuaries Program; and our hopes that the Clean Water Act might be amended to address non-point source pollution.

On the FDA raw oyster ban issue we found that nearly everyone was familiar with the ban to some degree. We heard lots of sympathy from staffers, and concerns about “process” and lost jobs, but turning that into legislative action is difficult. Just before we headed to DC we received documents responding to a Freedom of Information Act (FOIA) request submitted by PCSGA lawyers. These documents erase all doubt about the FDA’s true intent. The FDA clearly intended to include *Vibrio parahaemolyticus* (*Vp*) and the East and West Coast growers in their October 16 mandate for Post-Harvest Treatment (PHT) right up until a few days before the ISSC announcement.

The FOIA documents outlined their rationale for regulating *Vp* and included an implementation timeline of spring 2012. Grower reps from all three coasts met with Mike Taylor and other FDA honchos for 90 minutes in FDA’s opulent headquarters in Silver Spring, MD. There were lots of discussions about “dialog” but no sign that Taylor intends to back off. In fact, I left the meeting even more convinced that *Vp* is in the cross hairs, and that mandated PHT for East and West Coast growers is just a few years away unless we can get some legislative assistance.

Our congressional reception at the Acadiana was a huge hit again this year. Many thanks to all who stepped up to provide outstanding shellfish donations. The attendance was staggering and the feedback has been very positive. It is clear that DC folks enjoy this event every year and look forward to our annual visit to snag their coveted invitations.
We had a couple of unique opportunities this year. I was asked to make a presentation to the Joint Subcommittee on Aquaculture, a coordinating body with representatives from each of the agencies with jurisdiction over aquaculture. I talked about the state of our industry, potential for growth, regulatory and research initiatives and our plans for the Breeding Center.

This year the PCSGA teamed up with the Wine Institute and arranged a “House Members Only” wine and oysters reception for the Congressional Shellfish Caucus in the Capitol Building. This was a unique opportunity to hobnob with members of Congress in an informal setting while enjoying raw oysters and wine. We met representatives from many districts that we don’t normally visit and we were able to introduce them to our issues.

We still have work to do. We are trying to develop legislation that can attract broad support from all three coasts. The bills from the Gulf are difficult for many of our Congressmen to sign because they all have a heavy-handed clause that cuts funding for the FDA to fund PHT mandates. Our representatives don’t want to be seen coming out against public health at this time, so we are working on other options. In the weeks ahead I will be asking many of you to send letters to your representatives to support one or more measures. They want to hear from you much more than from me, so it is critical that you step up when the call goes out.

Working together we can have a great impact.

One last note. Our Hill Walk is incredibly expensive and each of these events costs thousands. If you haven't already sent in your dues, please do so. Try to think of colleagues who should be sharing the load and ask them to join too. Growers, gear suppliers, dealers, and restaurants all need to chip in if we are going to be effective in turning back the FDA.

Bob Rheault
Executive Director

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**From the President**

Dear ECSGA Members,

We recently concluded a successful year and trip to Washington, DC to lobby. Your organization is led by a board and team of officers who are willing and able and need your input.

Our annual meeting is this month at The Milford Shellfish Conference. The nominations committee has placed two outstanding candidates into nomination; Ed Rhodes, our former executive director has been nominated to become vice president. Additionally, Chad Ballard of Cherrystone Aquafarms has been nominated to become our secretary. Pending membership approval, the board waits their joining us.

The FDA-Vibrio battle continues on and we will be enlisting your active participation in the next month. In the meantime, we need each of you to recruit a new member for ECSGA.

Although our industry is small, we have become quite politically astute in the past few years. There is strength in numbers. Our numbers are growing! We are always here to talk, discuss and assist you in any way.

Regards,

*Tom Kehoe*
ECSGA President
This year’s Milford Aquaculture Seminar was the largest ever, with a registration of 125, representing 25 different farms. The ECSGA honored Walter Blagoslawski’s energetic leadership by presenting him with a commemorative oyster plate and engraved plaque, thanking him for 30 years of bringing industry and academics together to discuss the most vexing issues facing our industry.

This year’s meeting featured a special session on the Vibrio issue with presentations by URI’s Marta Gomez-Chiarri on measurement and detection technologies and challenges, Gef Flimlin on Post Harvest Processing technologies, and Bob Rheault on an overview of regulations and the potential impacts to industry of new FDA regulations mandating PHP. The session also featured a statement from Rep. DeLauro’s office describing the new Food Safety Legislation efforts being considered by Congress.

There were two important messages from this session that everyone should heed: we need to reduce illnesses if we want to avoid the heavy hand of the FDA, and the best way to do that is to keep your shellfish cool; and everyone must get involved if we want to...
continue to be allowed to serve fresh raw shellfish.

At the special membership meeting we considered changes to the by-laws and held elections. We are proud to announce two new officers on the board of directors:

Ed Rhodes replaces Vice-President Tommy Legget, who stepped down after four years of service. Ed, who served as our executive director for five years, is back in the aquaculture business again as Phillips Seafoods director of sustainability and manager of their new oyster grounds in upper Chesapeake Bay.

Chad Ballard III, owner of Cherrystone Aqua Farms on the Eastern Shore of VA, succeeds Karen Rivara as secretary; Karen is a charter member who has served on the board for six years.

Bob Rheault
Executive Director

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Rough Waves: A History of Oyster Aquaculture
Opposition in Maryland’s Chesapeake Bay

For thousands of years oysters thrived in the Chesapeake Bay, a reality reflected in its name Chesapiok, the Algonquin phrase for “Great Shellfish Bay.” European settlers adopted native means of collecting wild oysters, and harvesting intensified to such a great degree after the Civil War that Virginia instituted laws promoting the cultivation of oysters by private individuals and corporations.

Like many other coastal states and nations — especially Connecticut and France — Virginia sought to apply modern means of agricultural production to its oyster fishery, rather than relying on the inefficiencies of the hunter-gatherer lifestyle associated with the bay’s traditional watermen.

Yet Maryland refused to follow suit, which bewildered the biologists, packers, and railroad executives who saw enormous profits to be made by scientifically utilizing the oyster’s amazing reproductive capacity. Decade after decade advocates of private oyster farming failed to convince Maryland legislators to liberalize the oyster leasing laws.

The Maryland oyster beds appeared to embody the “tragedy of the commons,” the idea that commonly held natural resources always encourage short-sighted individuals to exploit them to the point of destruction.

Generations of watermen rejected this concept on ecological and economic grounds. They argued that natural and divine cycles of renewal and decline govern the reefs, that oysters could not grow on anything except natural bottoms, and that the huge amounts of capital needed for aquaculture would reduce them from independent operators to wage slaves.

Unlike watermen in other places who could not resist leasing pressure, however, Maryland’s oyster harvesters possessed a great deal of political clout due to the phenomenon of malapportionment. Because each county possessed one state senator and because the tidewater counties outnumbered the inland ones, watermen and their representatives possessed an unusual advantage, which they used to beat back pro-leasing campaigns.

That is not to say that Maryland legislators did nothing to protect the oyster beds. Recognizing the need for action following steep harvest declines, Maryland instituted a public repletion program in 1927. Shells were planted to catch the spat which would otherwise sink into the mud and die, and immature oysters were moved to more favorable growing areas.
The shell and seed planting subsidies enabled annual harvests to stabilize at 2-3 million bushels. While these levels satisfied most watermen, pro-leaseors argued that 15 million bushels could be produced under a more intensive program funded by entrepreneurs rather than “collective farming on the bay.”

The disastrous disease events which have decimated harvests since the mid-1980s have reignited the “oyster question” in Maryland. Fishery scholars predicted in the late 1800s that all opposition to private aquaculture would dissolve only when the bay could no longer yield natural oysters, and pressure is indeed mounting to break with longstanding managerial practices. Recognizing the value of what has worked in the past, as well as what has not, is a key part of ensuring that this transition benefits all the bay’s stakeholders in as equitable a manner as possible.

To purchase *The Oyster Question: Scientists, Watermen, and the Maryland Chesapeake Bay since 1880* at a 30% discount, please visit the University of Georgia Press website at: www.ugapress.org/index.php/books/oyster_question

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**The New FDA and *Vibrio* Regulations for Shellfish**

by Bob Rheault

ECSGA Executive Director

If you have not been following the events of the last four months and the FDA’s new edict banning the sale of raw Gulf Coast oysters from April through October then you might be spending too much time on the water. I won’t bore you with another recap of the history of this action, but I want to provide a little insight as to how we got here, the forces driving this policy change and a list of strategies we need to adopt to save our industry.

With every new administration, there are new appointments at key leadership positions. In August 2009, new FDA Commissioner Margaret Hamburg created the Office of Food and appointed Mike Taylor as Commissioner of Food in January 2010. According to the FDA’s website, “The Office is also the focal point for planning implementation of the recommendations of the President’s Food Safety Working Group and the new food safety authorities being considered by Congress.”

Along with these changes came a radical shift in ideology at the FDA that has significant implications for our industry. For fifty years we have worked with the FDA through the Interstate Shellfish Sanitation Conference, and state regulators have instituted tremendous improvements in water quality classification and monitoring. Since 1997 we have been regulated under Seafood HACCP, voluntarily implementing process controls that have significantly improved food safety and public health. These programs have led to dramatic improvements in shellfish safety that are widely supported by industry.

The cornerstone of these programs is Seafood HACCP, which dictates that processors must identify potential hazards where they are “reasonably likely to occur” and implement controls that minimize or eliminate such hazards. The new leadership at the FDA decided that it was no longer adequate to minimize *Vibrios* in shellfish, but that they should be eliminated through Post Harvest Processing (PHP). They have stated that such processes “can largely eliminate this hazard while preserving the organoleptic qualities of raw oysters.”

There is a new group of Food Safety regulators in town with radically different ideas on how to regulate our food. The FDA believes that any avoidable risk should be eliminated, and that those who prefer un-pasteurized cider or raw shellfish are simply “kooks” who don’t understand the risks and need to be protected from themselves. This group of regulators is pro-processed food and pro-big business because large firms are easier to regulate than thousands of mom-and-pop producers.
Once we are forced to sterilize all of our shellfish we will open the door to a flood of cheap imports; sterilized shellfish from nations that grow their shellfish in filth. Raw bars will never serve dead shellfish and a key market segment will cease to exist.

What can we do? We must mount an aggressive campaign on several fronts simultaneously:

- We must educate our lawmakers so they understand that consumers prefer choices and locally produced, unprocessed, natural foods, and they don’t want to live in a sanitized nanny state. They also need to understand that FDA’s regulations will result in thousands of lost jobs and will have a huge economic impact on harvesters, growers, dealers and restaurateurs.

- We have to improve shellfish safety. Keeping shellfish cool at every step from farm to fork will eliminate most Vibrio illnesses. Anyone who allows shellfish to warm up in summer needs to change their ways. If we can reduce the risk ourselves we might avoid draconian PHP regulations that the FDA is drafting for Vibrio parahaemolyticus on the East and West Coasts.

- We need to educate at-risk, immune-compromised consumers that it is not safe for them to eat any raw foods, especially shellfish. They can still enjoy cooked shellfish.

- We need to examine other control mechanisms that reduce Vibrio to safe levels, but do not require killing the shellfish (such as depuration).

- We need better detection methods that allow us to rapidly identify pathogenic Vibrios in our shellfish before they get to the consumer.

We have much work to do and little time to do it. The FDA has given Gulf Coast producers one additional year before they intend to mandate PHP.

If you think the FDA is not contemplating similar controls for Vibrio parahaemolyticus and East and West Coast producers you are kidding yourself.

*How will you get involved to save your business?*

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**Upcoming Events**

**Aquaculture 2010.** March 1-5, 2010 in San Diego, CA. Triennial meeting with NSA, WAS, and AFS/Fish Culture Section, including the National Shellfisheries Association’s 102nd annual meeting. Visit www.was.org.


Links and more information are available on the Events page of the ECSGA website. Visit www.ECSAG.org.
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So You Wanted To Be An Oyster Farmer?

I often ask myself this when winter weather gets bad. This year we have broken many records in the mid-Atlantic, with no end in sight. I have certainly survived worse since I began farming oysters in 1995, but I think I am growing less tolerant than I was when I was younger.

I moved to Virginia in 1977 to go to college at the Virginia Institute of Marine Science. In those days the entire York River would freeze over as far down as Gloucester Point, which is only a few miles from Chesapeake Bay. After finishing my masters degree in marine science in 1982 I started my career as a waterman, crabbing and tonging for oysters.

Tonging for oysters is half art and half hard work, but when you add freezing winter weather and ice to the mix it becomes really challenging. Some years our boats are frozen in for weeks at a time.

In those days I was the only certified scuba diver in town, so I was the one to clear lines and debris from the propellers of the local work boats. Not a bad gig in summer, but when I had to break ice to get in the water, I was not only certified, I was certifiable – crazy that is!

In the early ‘90s, thick ice was common, but for most of the last two decades we have not had a really hard freeze, until now. Since 1995 I have been growing my oysters on intertidal racks and if cold weather hits during extreme tides I worry about them freezing. I am most concerned about the small seed I planted in July. To prepare for the predicted cold, I remove all the bags from the racks and lay them flat on the creek bed. In past years this has prevented any significant losses.

I’m sure my New England colleagues are chuckling over a story about ice on the Chesapeake. After all, ice in New England is as common as bikinis in the Caribbean, but this January has been about as cold as any I can remember.

At New Year’s water temperatures were hovering around the mid to upper 40s, but when the cold weather hit they quickly fell to the mid 30s and ice formed quickly on Sarah Creek, where our nursery is located. To keep the creek clear of ice so we can work the nursery or get out to harvest oysters, we try to break up the ice by running the boat in circles. When it is cold we have to do this for several hours a day. It is tough on the bottom paint and the outboard, not to mention the skipper. After a few days of this my four-stroke Yamaha quit. So with the cold weather, the ice and boat problems I’m saying to myself, “So you wanted to be an oyster farmer?” Turns out, the thermostat was stuck open allowing gas into the crankcase. A new thermostat and spark plugs, and the engine was in good shape.

A good lesson learned; check your oil regularly and change the thermostat annually.

Well, the ice is gone, the boat is in good working order, and the oysters made it through unscathed. Do I still want to be an oyster farmer? Well hell yeah! It’s who I am and what I want to do. I’ve worked on the water for nearly 30 years and as long as I’m able I will continue to do so, but I can still grumble and complain about the cold.

As I finish this, the mid-Atlantic is bracing for a huge winter storm while I’m in Florida on vacation. The storm dumped a foot of snow on us in Gloucester County, the creeks froze, but not as much as the first of the year. Now to shovel snow out of three Carolina Skiffs. This winter just doesn’t want to give up!
SUNY: Ocean Acidification May Contribute To Global Shellfish Decline

by SUNY Communications

Relatively minor increases in ocean acidity brought about by high levels of carbon dioxide have significant detrimental effects on the growth, development, and survival of hard clams, bay scallops, and eastern oysters, according to researchers at Stony Brook University’s School of Marine and Atmospheric Sciences. In one of the first studies looking at the effect of ocean acidification on shellfish, PhD candidate Stephanie Talmage and Professor Chris Gobler showed that the larval stages of these shellfish species are extremely sensitive to enhanced levels of carbon dioxide in seawater. Their work was published in the November issue of the journal *Limnology and Oceanography* and is available online at: www.aslo.org/lo/toc/vol_54/issue_6/index.html

“In recent decades, we have seen our oceans threatened by overfishing, harmful algal blooms, and warming. Our findings suggest ocean acidification poses an equally serious risk to our ocean resources,” said Gobler.

During the past century the oceans absorbed nearly half of atmospheric carbon dioxide derived from human activities such as burning fossil fuels. As the ocean absorbs carbon dioxide it becomes more acidic and has a lower concentration of carbonate, which shell-making organisms use to produce their calcium carbonate structures, such as the shells of shellfish.

In lab experiments, Talmage and Gobler examined the growth and survivorship of larvae from three species of commercially and ecologically valuable shellfish. They raised the larvae in containers bubbled with different levels of carbon dioxide in the range of concentrations that are projected to occur in the oceans during the 21st century and beyond.

Under carbon dioxide concentrations estimated to occur later this century, clam and scallop larvae showed a more than 50 percent decline in survival. These larvae were also smaller and took longer to develop into the juvenile stage. Oysters also grew more slowly at this level of carbon dioxide, but their survival was only diminished at carbon dioxide levels expected next century.

“The longer time spent in the larval stage is frightening on several levels,” said Talmage. “Shellfish larvae are free swimming. The more time they spend in the water column, the greater their risk of being eaten by a predator. A small change in the timing of the larval development could have a large effect on the number of larvae that survive to the juvenile stage and could dramatically alter the composition of the entire population.”

Although carbon dioxide levels in marine environments will continue to rise during this century, organisms in some coastal zones are already exposed to high levels of carbon dioxide and low pH due to high levels of productivity and carbon input from sources on land.

“This could be an additional reason we see declines in local stocks of shellfish throughout history,” said Talmage. “We’ve blamed shellfish declines on brown tide, overfishing, and local low-oxygen events. However it's likely that ocean acidification also contributes to shellfish declines.”

Talmage and Gobler hope their work might help improve the success rate of shellfish restoration projects. “On Long Island there are many aquaculturists who restock local waters by growing..."
shellfish indoors at the youngest stages and then release them in local estuaries,” said Talmage. “We might be able to advise them on ideal carbon dioxide conditions for growth while larvae are in their facilities, and offer suggestions on release times so that conditions in the local marine environment provide the young shellfish the best shot at survival.”

American Invasion

Oysters in Great Britain are at risk of a “catastrophic decline” thanks to an import from this side of the pond, the Atlantic oyster drill, *Urosalpinx cinerea*. Particularly hard hit has been the Solent, the stretch of sea separating the Isle of Wight from the mainland of England.

The small snails, known in English-speaking Europe as “tingles,” are about inch long but voracious predators. Drills bore holes in bivalve and barnacle shells in order to consume them.

They first soften the shells with a secreted substance and then use a radula (a toothed tongue) to drill through the shell and scoop out the flesh.

Small oysters are particularly vulnerable.

Tingles were first sighted in British waters in the 1920s after allegedly being carried across the Atlantic along with imported oysters. They have invaded the U.S. Pacific coast, as well.

Recently fishermen in the Solent are blaming the dearth of oysters on the tingle, but the region’s chief fishery officer, Ian Carrier, said the industry can only be saved if fishermen take responsibility for overfishing and poaching.

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Annual Dues Schedule

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