



LONGLINES

Volume 21 No. 2
Spring 2018

**SHELLFISH GROWERS FIGHT FOR
WORKABLE POLICY IN DC**

PCSGA



PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

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The PCSGA strives to ensure a healthy industry and environment for shellfish farming on the Pacific Coast.

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Comments and questions about Longlines are invited. Please email pcsga@pcsga.org.

What the Tide Brought In



PCSGA members Terry Sawyer (Hog Island Oyster Co.), Greg Dale (Coast Seafoods), Miranda Ries (Pacific Seafoods), Kyle Lentz (Chelsea Farms) with PCSGA Executive Director, Margaret P Barrette, hustle between DC meetings... and, stopping occasionally for a selfie!

and two EU counties. The next phase at that point was for a public process to consider how and when trade would be restored for those identified areas and others. (See article on page 8)

For two years, shellfish growers have inquired about the status of FDA's work toward restoring trade with the EU. For the past two years, PCSGA has channeled my dear mom and asked, "What's going on? Is it done yet?" The unsatisfactory response from FDA led us to expanding our inquiry to members of congress, USDA, and Department of Commerce. For the record, and since most apples don't fall far from the tree, my mom often threatened to go above me and contact my professor, but thankfully did not.

Finally, in mid-March FDA announced the next step that we've been waiting for since 2015! The FDA initiated the public process restoring trade with the EU. Imagine that, our friends at FDA finally finished what they committed to doing! We're not done, but we seem to be well on our way. Unless of course, someone is playing a prank on us...

Either way, PCSGA will scope it out and will remain engaged.

DATE CHANGE FOR 72ND ANNUAL SHELLFISH CONFERENCE

Due to reasons out of our control, this fall's Conference and Tradeshow has been moved to September 18-20, 2018. We apologize for any inconvenience.

Submit abstracts for oral presentations to www.pcsga.org/annual-conferences/
Deadlines: May 1, 2018 (abstract title due) and June 1, 2018 (full abstract due)

Cover Photo: Cooperative efforts between Pacific Coast, East Coast, and Gulf Coast Shellfish Growers Associations align in Washington DC where joined issues were tackled at the national level.

Pearls from the Vice-Prez

It is with pleasure that I get a chance to write about some of the PCSGA activities. As I have for the last several years, I attended the Washington DC trip. This year I felt that the small group of PCSGA members that did the Walk-The-Hill activities in Washington DC were an effective group. This allowed us more opportunities to engage with our Congressional delegates on our specific issues. Our continued engagement over the years with members of Congress has been of great benefit to our PCSGA members. This work specifically has helped us to establish a navigable federal permit process that wasn't available to us before.

One of the big issues that we have continually been talking about in DC is opening up trade again to the EU. It appeared that, directly following our trip this year, the FDA finally announced that they would publish on the Federal Register the equivalency standards that they have agreed upon with the EU. This will open up shipping from Washington and Massachusetts to Spain and the Netherlands. This will also begin the process to eventually get other states from both sides into the program. After eight years of trade being closed, this equivalency standard is long overdue. I hope that the implementation of this process is swift and we can see it setup for all states that would like to participate.

The Washington DC trip culminated in a winter windstorm with power outages. The Federal Government was closed for the last day of the trip and the storm made many folks change their travel plans. These last minute flight changes and cancellations presented challenges for many of us. Thankfully everyone made it home safely.

Kyle Lentz
Chelsea Farms
Kyle Lentz

Monthly Winners of
Ecosystem Services
Photo Contest!



JANUARY: Tracy Ovaitt snaps this photo of a Dungeness crab living a sheltered life in a Pacific oyster at Cape Lookout in Netarts Bay, Oregon.



FEBRUARY: Weatherly Bates of Alaska Shellfish Farms LLC shows how a Giant Pacific octopus utilizes oyster farms as habitat. This juvenile octopus, found inside an oyster shell, forages on ample invertebrates who also thrive in the oyster cages.



MARCH: Dave Shupert takes this photos of a Manila clam spawn. Oblivious to the extreme amount of human activity, these clams ensures future generations. This sight never gets old!

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Photo and caption are due the 15th of every month!

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Pacific Seafood is first company in the world to offer Four-Star BAP oysters

Four-star is the highest designation in the BAP certification program

Steven Hedlund
Aquaculture Alliance, Communications Manager

A division of the Global Aquaculture Alliance, Best Aquaculture Practices (BAP) is an international certification program based on achievable, science-based and continuously improved performance standards for the entire aquaculture supply chain — farms, hatcheries, processing plants — that assure healthful foods produced through environmentally and socially responsible means. BAP certification is based on independent audits that evaluate compliance with the BAP standards developed by the Global Aquaculture Alliance.

BAP mollusk farm standards require farms to manage stocking rates to avoid exceeding the environment's production carrying capacity. BAP also requires farms to conduct monitoring of neighboring benthic communities to ensure that the consumption of naturally occurring organisms by the mollusks is not causing negative sediment impacts. Farms must also carefully monitor the surrounding environment to ensure it remains free of potential contaminants that may cause human food-safety risks.

After thorough evaluation, it was determined that Pacific Seafood can offer four-star BAP oysters as opposed to just three-star BAP oysters.

“At Pacific Seafood we are dedicated to providing the healthiest protein on the planet, which is why having third-party validation by BAP of our entire supply chain for oysters is critical,” said Chris Jones, hatchery operations manager

for Pacific Seafood. “We are proud to begin offering our customers oysters that meet the highest standards of respect, throughout the entire supply chain, for the environment, workers and the community as well as animal welfare and food safety.”

Pacific Seafood's BAP-certified oyster processing plant and farm are located in South Bend WA, and the BAP-certified oyster hatchery is located in Quilcene WA. This is the first step toward the company's goal that all Pacific Seafood oysters achieve four-star status. This year the company will focus on certifying additional facilities and adding new four-star oyster products to the market.



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U.S. Shellfish farmers could get relief from insurance requirements under new bill

Christine Blank

Published on March 5, 2018

SeafoodSource

A bill designed to exempt shellfish aquaculture workers from having to carry multiple forms of insurance has been introduced in the United States House of Representatives. In mid-February, U.S. Rep. Mark Sanford (R-South Carolina) introduced H.R. 5061, the Shellfish Aquaculture Improvement Act of 2018.

The shellfish aquaculture industry, which is responsible for an estimated annual production value of \$500 million annually, is the fastest-growing sector of agriculture in the U.S. However, insurance requirements placed upon it are redundant and costly.

Shellfish aquaculture is a near-shore, water-dependent, farming operation that is normally conducted solely within state waters. Congress recognized this and specifically excluded aquaculture workers from carrying insurance required under the Longshore and Harbor Workers' Compensation Act, according to Sanford. But shellfish aquaculture workers are still required to be insured under the Merchant Marine Act, also known as Jones Act.

“When the Merchant Marine Act of 1920 passed Congress, the aquaculture industry didn't even exist. Indeed, when drafted, the Act was intended to support a robust U.S. maritime industry that could augment the U.S. Navy, if needed,” Sanford said. “Yet the same rules and regulations drafted about a century ago still apply today to an oyster



farmer on a 14-foot skiff. This bill will help local shellfish farmers...as their industry and the demand for their oysters continues to grow.”

Oyster production along the U.S. East Coast has doubled in the past five years, according to Bob Rheault, executive director of the East Coast Shellfish Growers Association. But the high cost of insurance has hindered the industry's growth, he said who praised the proposed legislation.

“The Merchant Marine Act was never intended to apply to aquaculture workers in state waters,” Rheault said. “By clarifying our status, this act will allow thousands of shellfish farmers to protect their workers with affordable state workers' compensation coverage, saving them thousands each year.”

Frank Roberts, of Lady's Island Oyster Company in Seabrook, South Carolina, said the bill will bring relief to his company and other small businesses in the aquaculture sector, which often operate on tight margins.

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Farmers' Corner



The View From Our Farm

By Daniel Hanson -- H.C. Snail -- Hood Canal, WA

A thirteen-year-old boy drags a gunny sack full of oysters up the beach, and then up a steep bank to the road. It's a hot July day and low tide. The boy would have rather stayed in bed, but his grandfather threw a wet bathing suit at him as a wakeup call.

Fast forward fifty years and my 90-year-old father is crawling around on the beach with me, laying out our first line of lay flat bags and oyster seed. Early that morning, we went to the Taylor Shellfish public seed sale and purchased 1,500 Pacific diploids. Steve Bloomfield knew we would need equipment and gave us some used bags with the suggestion we get rope and rebar. Returning home, we realized, "Holy crap! We have to get these babies in the water... and the tide's coming in!"

From these humble beginnings came HC Snail and The Noble Oyster. Our small oyster farm on Hood Canal is owned and operated by my sister, Dawn Hanson-Smart, and me. We've had a huge amount of help and learned much along the way on how best to grow our oysters -- from lay flat bags, to experiments with various tumble cages, to reorienting our long lines, to continuous process improvement. Four years into this endeavor, we think we can see the way forward.

PCSGA, Puget Sound Restoration Fund, and several big-hearted individuals helped us avoid the more serious mistakes and greatly informed our view of oyster farming and shellfish aquaculture in general. Were it not for this generous help, we probably would not be where we are today.

Oyster farming is my first and probably last money earning job, but this time around it's a lot more rewarding and fun. From the pure misery of dark, cold, rainy low tides in January to the joy of listening to opera while working the beach in June, we have experienced some of what "real" oyster farmers do. It has given us a genuine appreciation for the people and work that make this industry so vital, as well as a deeper understanding of the marine ecosystem. We've come to love the work and are proud to share The Noble Oyster.



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U.S. and Europe to stop being selfish About shellfish

Kate Sheridan
 Published on March 9, 2018
 Newsweek

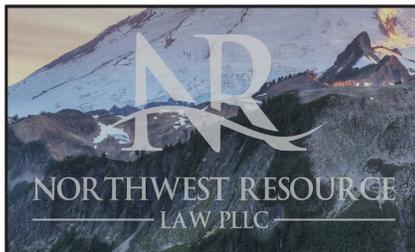
American consumers that imported molluscan shellfish from Europe is as safe as what we produce in the U.S.”

It’s one thing to sell seashells by the seashore—selling shellfish by foreign shores is another thing entirely. After years of work, two U.S. states and two countries in the European Union (EU) may soon be able to ship certain types of raw mollusks across the Atlantic. The Food and Drug Administration announced a new proposed shellfish “equivalence determination” on March 6th that would open up the U.S. market to European mollusks. (The European Commission is working on a similar document, the FDA noted.)

According to that statement, “fish products account for more than \$5 billion in total value of U.S. exports, and roughly one-third of that is shellfish.” The U.S.-EU shellfish trade had stopped completely in 2010 after the EU questioned whether or not the U.S. food safety systems were truly equivalent to its own, according to a Federal Register announcement. Two years before that, the EU’s health and food safety authority had asked the U.S. to allow European producers to export to the U.S. Some European shellfish had not been allowed into the country since the 1980s, the FDA’s statement noted.

Together, the new equivalence determination would allow shellfish purveyors from Massachusetts, Washington state, Spain and the Netherlands to send their seafood across the Atlantic. The idea, according to FDA Commissioner Scott Gottlieb, is to open up new markets “as well as making a wider selection of healthy and safe shellfish options available to consumers,” he said in a statement. “It will also ensure

“The problem with raw shellfish is that at times it contains toxic algae,” noted University of Florida fisheries economist Frank Asche. That can pose a real danger to human health. And according to that Federal Register announcement, there were some differences between the European and American systems of testing raw seafood for potential bacteria



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Continued from page 8

contaminants. In Europe, the meat is tested to see if it's safe to eat; in the U.S., levels of microorganisms like bacteria found in the water where the shellfish grew are the key components.

But a country's decision to close its borders to raw seafood products may not always be about safety, Asche noted—it might also happen if one country wants to jury-rig a trade barrier. Trade barriers can be obvious, like the aluminum tariffs President Donald Trump just announced—or they can be more subtle. However, Asche noted, there's no easy way to confirm if the shellfish safety concerns were actually an attempt to create a trade barrier.

Bob Rheault, the executive director of the East Coast Shellfish Growers Association, put it more bluntly: "It was clearly adults behaving like kindergartners," he said. "We have a long and challenging history in trade of shellfish over there," Rheault said.



Oyster farmers are hard at work at Hog Island Oyster Co in Tomales Bay, California. American oysters from two American states may soon be able to be sold in Europe, the FDA announced March 6th. California is not one of those two states.

"It's not an insignificant matter to get this sort of stuff established." For one thing, it's pretty expensive to ship what Rheault referred to as being like "live rocks" across an ocean.

Getting it through the border can also be a challenge. Even one day in

quarantine can shave off 10 percent of the shipment's value. "I mean, they have a limited shelf life. All the chefs want to have the freshest possible product," Rheault explained. And opening up new markets could help stabilize prices as oyster production rises as it has in the last five years," Rheault said.

The U.S. has a massive seafood-related trade deficit. More than 90 percent of the seafood Americans consume is brought in from elsewhere, mostly due to things like shrimp being farmed in Asia. But whether one country's shellfish will actually be able to make a splash in the other's markets is not clear, Asche said. "I wouldn't expect this to be a really big thing," he said, outside of certain high-end, specialized restaurants that will care about the taste that an individual bay might give to an oyster.

Rheault is more optimistic, adding that he hoped other states

would be added to the agreement soon—especially because shellfish growers outside of Massachusetts and Washington state are none too pleased. As Rheault said, "There is a significant advantage to being the first one in the door."

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Message in an oyster bottle

Rick Harbo
 Adopted from The Dredgings
 Volume 58 No. 2
 March-April 2018

I tracked down some Old Olympia oyster bottles recovered in the 1970's from an oyster shell heap of the Ladysmith Oyster Company on the foreshore of Ladysmith Harbour, B.C. Looking online and with a few calls, I've made some notes worth sharing.

Olympia oysters we bottled into Thorpe & Co Ltd. (Vancouver, B.C.) glass jars, often called a Micky -- a slang term referring to a smaller size liquor bottle (Fig. 1). The B.C. oyster bottle held 1/4 pint - 5 oz. Imperial measure was for the cocktail trade. It is amazing that the small "cocktail oyster" bottles in B.C. and Washington held on average 60 to 75 oyster meats and occasionally as many as 150 meats! Thorpe & Co Ltd. operated from 1889 to 1935.

The lids were clamped on with a swage, jar hammer. These lids were tamper evident and sealed quite nicely. The main drawback was if the hammer wasn't placed squarely on the jar top, it would shatter the jar, causing the packers much trouble and the potential for cuts (pers. comm., S. Bloomfield, PCSGA).



The pint jar (Fig. 2A and 2B) was in use by the Pacific Coast Oyster Growers Association (now PCSGA) until the late 1960's (pers. comm., S. Bloomfield, PCSGA). It was made by Northwestern Glass and had the clamp on sealed lid. The initials NW can be found on the bottom of the bottle. Northwestern Glass in South Seattle, founded in 1931, produced many different types of glass food and beverage containers. Over the years, the plant was operated by many companies and has been modernized to increase the use of recycled glass. It is now operated by Verallia.

These jars and other containers will become a part of the oyster aquaculture display at the Ladysmith Maritime Museum on the shores of Ladysmith Harbour, B.C. Thanks to Dave Smith who recovered the small oyster cocktail bottles from an oyster shell heap in Ladysmith Harbour, and Steve Bloomfield and the Pacific Coast Shellfish Growers Association.

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Minutes in line to enter reception

Attendees of Shellfish Caucus Reception **350** 

62 
Mph wind gusts responsible for canceling flights home

Letter from the Editor

It is bitter-sweet news to share that March 23rd marked my last day with PCSGA. My husband, Stuart Thomas, and I are moving to Anacortes as he accepted the position of Aquaculture Biologist and Manager for the Swinomish Indian Tribal Community.

Thank you for supporting me in the position as Outreach and Project Coordinator and for allowing me to grow personally and professionally in this role. I am honored to have had the opportunity to serve the Association and to experience the many facets of growing shellfish on the west coast and beyond. Thank you for sharing so much with me!

I greatly admire the resilience and perseverance of this industry and I hope to continue work that supports



sustainable shellfish cultivation. I appreciate each of you. I wish to see the continued success of your businesses and to frequently eat tasty bivalves!

Keep in touch, and drop a line if you're in the Anacortes area. Farewell for now, and keep on shucking,

-Becky Mabardy

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WASHINGTON LEGISLATIVE DAY AND RECEPTION:

On January 29th, PCSGA members connected with state representatives at Washington's capitol in Olympia. A well attended reception followed at 222 Market Place.

PCSGA appreciates you taking time away from your farms to connect with local officials about issues that impact the shellfish industry.

Special thank you to the shellfish companies that cooked, served, and shucked for our elected state officials.



Remembering a Friend: Bill Knannlein

By: Steve Bloomfield

Bill was born August 3, 1940. He passed away on March 14, 2018. He was raised in Cosmopolis WA. He had two children Bill and Loraine, and four grandchildren Lucas, Cassandra, Cory, and Lysie.

He was a tool and die maker for Boeing during the 60's and 70's where he learned fiberglass and the skills to build molds to build parts.

He moved to Shelton and established a business, Fiberglass Marine, building small boats and air dams for large trucks. He became well known as the man that

could fix your boat and who specialized in marine applications.

In 1990, Bill moved his shop to it's present location to help build the Dahman Shellfish Nursery. Out of that grew a very broad business of building special needs products for shellfish hatcheries and nurseries world wide.

Bill loved fishing, bowling, photography, and his work. He was a decades-long supporter of PCSGA and anyone that attended PCSGA annual meetings may remember Bill dancing the night away.

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Seeing Oysters through a New Lens

George Waldbusser
Associate Professor at College of Earth,
Ocean, and Atmospheric Science
(Oregon State University)

Over the past 8-10 years, the oyster industry has seen a tremendous increase in monitoring water chemistry in various industry locations, largely in response to the hatchery losses associated with ocean acidification. In fact, there are now world famous 'Burkolators' sited from Southern California through Alaska (with data available on the NANOOS website). We do not however have systematic biological monitoring of oyster fitness.

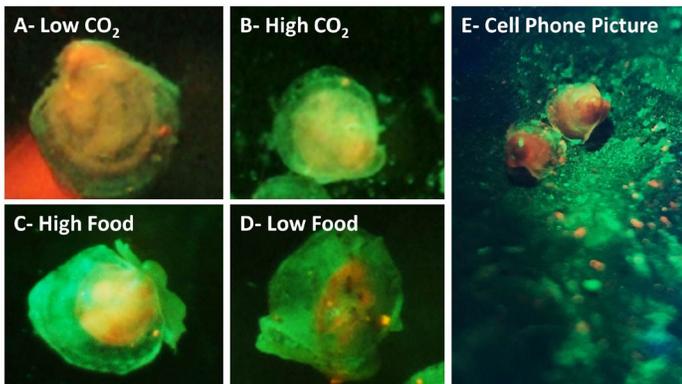
Fortunately, we are now changing that with funding from the NOAA Aquaculture project through Oregon Sea Grant, and some crowd-sourced funding. My project team has modified existing fluorescent staining techniques and calibrated them for use by industry

stakeholders with fairly inexpensive optics and lights. The stains, particularly a lipid stain, have worked as an indicator of both food deficit and exposure to ocean acidification conditions in experimental conditions (See Figure).

We were able to assemble 25 total staining kits (at a cost less than \$400 per kit), and have distributed 15 of those to growers up and down the West Coast (including British Columbia), and a couple to the US East Coast.

There are 10 kits left to distribute; please contact waldbuss@coas.oregonstate.edu if you are interested! We are excited that this is our first full-season with a larger group of growers using the kits. Thank you to those who are working with the kits; please keep in touch and write if you need some help! We'd love to see your images on our upload site.

Figure: Panels (A-D) show the results from newly settled Pacific oysters at 2 weeks post-set under low and high CO₂ (A, B), and 4 weeks post-set under high and low food rations (C, D). The orange tone is tissue; notice the density and fullness is different when oyster spat are well fed and under low CO₂, versus stressed. Panel E is a picture from an iPhone 5S using the staining kit.



As the oysters grow and shell becomes less transparent, the staining techniques diminish in efficacy; stains are effective up to about 2 months post-set.

Data are currently being analyzed and drafted for publication by graduate student Jessamyn Johnson.

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One Farewell & One Welcome

We are sad to share the news that Tamara Piñero is no longer with PCSGA. She happily relocated to Tacoma and recently accepted a position with the Tacoma Community College. We are excited for Tamara, and will also miss her immense heart and positive spirit. We thank Tamara for all she contributed to the Association and our members.



PCSGA ladies with Jerry Sandford and Norplex Inc. at Seahawks game on Tamara's 50th birthday!

Since Tamara's departure, PCSGA filled the Administrative Assistant position. Please join us in welcoming Rebbecka Allen.

Rebbecka was born and raised in British Columbia, but is now a permanent resident in Washington. She worked for six years as an administrative assistant and office manager for two different architecture firms in British Columbia, and another three years for the Dean of Medicine at the University of British Columbia. After migrating to Washington, however, Rebbecka took a few years off to happily tend to her small organic farm in Northeast Olympia. Rebbecka and her husband tend vegetable, herb and flower gardens, fruit and nut orchards, honeybees, chickens, rabbits, and soon - Icelandic sheep. In her spare time, Rebbecka enjoys hiking, painting, photography, and knitting. She brings a unique resume to our happy family here at PCSGA and we're thrilled to have her. Rebbecka will be working part-time, generally from 8:30-12:30 pm each day.



Rebbecka is an organic farmer in Olympia with a bounty of onions.

SHELLFISH GROWERS!

Want to stay connected with members of the East Coast Shellfish Growers Association (ECSGA)?

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Calendar of Events

APRIL

10-11: Pac Rim Conference, Semiahmoo Resort, Blaine WA
12: PCSGA Spring Beach Cleanup, South Puget Sound WA
15-21: Washington State Shellfish Week
21: Hama Hama Oyster Rama, Lilliwaup WA
21: CoastSavers Earth Day Beach Cleanup, WA Coast
27-29: Astoria Warrenton Crab, Seafood & Wine Festival, Astoria OR
28-29: Oregon Ag Fest, Salem OR

MAY

6: SLURP, PCSGA Fundraiser, Olympia WA
21-22: PCSGA Board Meeting LIVE, Samish Bay

JUNE

16: Arcata Bay Oyster Fest – Arcata, CA
19-21: SeaWeb Seafood and Sustainability Summit, Barcelona, Spain

JULY

22: Geoduck Festival - Allyn Days – Allyn, WA



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WASHINGTON SHELLFISH WEEK

April 15-21, 2018



For calendar of events, visit:

<https://aquaculture.wsg.uw.edu>

Follow social media hashtag:

#digWShellfish

NOTE: DATE CHANGE

72nd Shellfish Growers Annual Conference

Hosted by PCSGA and NSA-PCS
September 18-20, 2018
Semiahmoo Resort in Blaine, WA



THE PCSGA GROWER ENRICHMENT AND DEVELOPMENT FUND

The fund provides financial assistance to members of PCSGA for expenses related to education opportunities, experimental practices, and attending PCSGA events such as the Annual Conference or Walk the Hill.

Apply for funds at: www.pcsga.org

Please consider making a donation to the Grower Enrichment and Development Fund. Contact PCSGA for details.