

PCSGA



PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

LONGLINES

Volume 19 No. 2
Spring 2016



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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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Cover Photo:
PCSGA Spring Beach Clean-Up at Arcadia Boat Ramp

What the Tide Brought In

Notes from the Director



Margaret (far right) sorting marine debris with volunteers at PCSGA Spring Beach Clean-Up.

One of the best parts about my job is visiting the many wonderfully, different shellfish farms. Last fall, my travel allowed me to see two such farms in different corners of the country.

In October, while attending the World Oyster Symposium, Connie Smith and I spent some time with Tamar Haspel and Kevin Flattery of Barnstable Oyster in Barnstable, Massachusetts. They both came to shellfish farming from successful careers in business and writing. Kevin is a stocks trader and Tamar is a writer with the Washington Post and James Beard Award winner! Tamar writes primarily about food, so growing her own food made a great deal of sense.

Barnstable Oyster produces about a hundred thousand oysters per year on lands leased from the state. Their growing area can only be accessed by boat when the tide is “just right” or else you’ll get grounded on a sand bar. Arriving at their land is much like pulling up to a community garden as several leases, grants, are adjacent to each other. A series of individual open-topped trays lie in a grid where farmers tend their crops and explore options of different equipment combinations. Whether rebar or PVC was more effective in keeping the trays out of the mud was in question.

Barnstable Oysters are sorted by hand. In order to remove barnacles, Kevin and Tamar rely on some good ole fashion Yankee ingenuity -- a re-purposed cement mixer loaded onto their boat. They must work quickly and return to the boat ramp before the next tide. As we arrive back at the public boat ramp, Connie and I are reminded that many of the challenges of farming on the Pacific Coast exist there too in Massachusetts. Kevin and Tamar chuckle at the enforcement agent there to greet us at the boat ramp. “Neighbors” are pretty wiggled out that the boat ramp is used by farmers and request regular patrols to ensure the shellfish people aren’t trashing the area. Good thing Kevin and Tamar’s oysters are doing everything BUT trashing the area.

My travels also took me to Gulf Shores Alabama for the Hang Out Oyster Cook-off. Many Longlines readers know of Andy DePaola, the Vibrio expert from FDA. Andy, who lives on the shores of Mobile Bay near the Oyster Cook-off, invited me to his place to see and taste his Gulf Coast oysters. Andy’s place is sublime, lovely property with fruit trees and a large dock that jets out into Mobile Bay. The dock is constructed in pieces and removed during weather events.... one of Andy’s engineering tricks. Hanging from the dock are SEAPA bags filled with oysters growing to market-size in 18 months. Andy employs a system of plugs in order to position the bags in the water, but off the bottom, or out in the air for anti-fouling. Andy’s oysters are served with home-made cocktail sauce and home-made gin!

Being able to network with farmers is one of the reasons members stay with PCSGA. Despite an occasional barnacle, shellfish growers are a likable bunch.

Be Well, Margaret Barrette



Photo: Kevin Flattery of Barnstable Oyster

Pearls from the Prez

The first quarter of 2016 has been a blur with PCSGA activities. A quick rundown of them in chronological order: Re-launch of the Washington Shellfish Initiative, Olympia Legislative Day and Reception, DC Walk the Hill with record attendance and representation from growers in all PCSGA states, California Legislative visit, and the Bi-Annual Beach Clean-Up in March! I look forward to the seeing what's ahead for all PCSGA events.

Gov. Jay Inslee launched Phase 2 of the Washington Shellfish Initiative (WSI2) in a successful event hosted by National Fish and Oyster in Olympia. Most of the work and preparation of the WSI2 was handled by Julie Horowitz in the Governor's Office. She is now leading the action and a big amount of appreciation goes to the continuation of her work. More about the WSI2 can be found on page 6.

This is my call to all of our members to get involved! The association is seeking more volunteers to help with our various activities and discussions. Please take this opportunity to volunteer, participate in a committee, attend our live board meeting May 17-18 in Olympia, and generally get engaged. With that said, SLURP is just around the corner on May 1st here in Olympia and I look forward to seeing all of you there.

On a personal note, my wife and I are expecting our first child any day now. As I write this she was technically due yesterday. We are very excited for our daughter to be born. Here's to what the future brings for us all. Happy Shellfish Farming!

- Kyle Lentz

Ecosystem Services: Photo Contest Winners



JANUARY: Lisa Carleton-Long captures shore crabs staying warm in our trays under the oysters at her Hood Canal property.



FEBRUARY: Brett Long shows Spinyhead Sculpin eggs taking advantage of cultured oyster shell in Tarboo Bay.



MARCH: Zach Loescher snaps a shot of the oystercatcher, a keystone indicator species of shoreline health, eating mussels from the raft mooring line a Penn Cove.

A winner is selected each month for the \$100 prize. See contest rules and entry information at www.pcsga.org.

SURVEY: PCSGA SHELLFISH GROWERS

Grower members should receive the PCSGA survey in your email and mailbox very soon, if not already. Thank you in advance for taking 15 minutes to complete the questionnaire and share your insights.

This survey will improve PCSGA's understanding of your priorities, perspectives, and preferences. Future communication strategies, budget decisions, and membership benefits will be influenced by information shared.

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Reaching for the Summit: DC Walk the Hill 2016

By Diani Taylor
Taylor Shellfish Farms

As you may know, several determined PCSGA members bravely “Walk the Hill” at our Nation’s capitol each February, bringing West Coast shellfish farmers’ interests to the forefront of our federal agencies’, State senators’ and congresspersons’ minds. Although every visit to D.C. is different, this year’s trip was particularly unique. Members from ALL 5 West Coast states were able to attend, truly “bringing home” shellfish growers’ messages to our federal representatives.

2016 also broke attendance records, with 23 growers turning out to cover as much ground as possible on the Hill. The high turnout is evident not only of the significant, looming issues that face shellfish growers today, but also the burgeoning interest in new entrance, growth, advancement, and science in the industry.

We aspire to Walk the Hill in even greater numbers in the future, bringing further diversity and impact to our meetings. This is especially true as the group considers making the trip twice a year, rather than annually. Biannual meetings could strengthen our DC connections and keep shellfish issues at the forefront of federal minds.

We were also honored to walk this year with Dan Barth, a service-disabled veteran of the Vietnam War. Dan is a hopeful industry entrant, and intends to start “incubator” farms for veterans through his company, Patriot Shellfish Farms. Dan brought an important message to the Hill: veterans need sustainable career opportunities in rural areas, including careers in shellfish farming.

Growers were fortunate to meet Senator Maria Cantwell in the grand and gilded President’s Room in the Capitol Building. Senator Cantwell takes time every year to meet the growers in person and could only arrange to meet our group at the Capitol, due to her busy schedule. Her commitment to shellfish has never been more apparent!

“If you are interested in helping resolve National and International shellfish related issues, the Walk the Hill Committee welcomes you to join monthly conference calls and meetings. Special thanks to the PCSGA staff who did such a great job of scheduling and thanks to all the growers who took time from their businesses to represent the Pacific Coast shellfish industry.”
-Dave Steele



Photo in the President’s Room, Capitol Building. From the Left: Dan Barth, Margaret Barrette, Kyle Lentz, Shina Wysocki, Dave Steele, Maria Cantwell, Bill Dewey, Ian Jefferds, Miranda Reis, Lissa James-Monberg, Amanda Carr.

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Slow Response to a Fast Life

By John Adams
Sound Fresh Clams and Oysters

Another overcast day on the beach in February, I am walking with Richard McCarthy, Executive Director of Slow Food USA. We had met at Terra Madre a couple of years ago and he was at the farm to see where we grew Oly's and geoducks (both valued in Slow Food as Ark of Taste species) together. We are talking about discourse in our society, the state of farming in our country and the importance of food and community.

Richard asserts that engaging people over food has an irreplaceable value in rebuilding dialogue in our communities. It is more than just voter fatigue, sound bite analysis and alarmist broadcasting. So many products and methods of information dissemination combine to compete for attention in an increasingly fast-paced life. Sitting with new friends at a table full of delicious and healthy food (read as shellfish) provide a break from an overwhelming tempo.

Even the nature of dialogue seems to be stacked against us. Richard spoke of how so much of our interpersonal exchanges revolve around divisive issues and conflict-oriented communication. Not to mention the micro-second analysis of uttered words or nuances. Finding common ground amongst people is easier over the top of an oyster.

Like many terrestrial farmers, our number of shellfish farmers is decreasing. From 2005 to 2013 there was a loss of 47 shellfish farms in WA state. Of US farms in general, Richard says, "Many farms in the USA are undercapitalized and threatened."

Our watersheds lose their health as people fail to understand how their everyday outputs continue to affect estuarine water

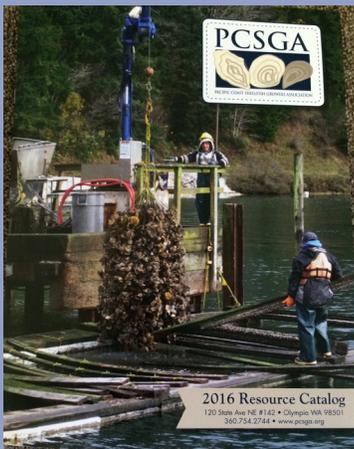
quality. But when people are able to connect their food to their local environment, it fundamentally changes how people view their living practices. "Food articulates through the senses, you can internalize the characteristics from where it is grown."



After foraging on the beach, we sit together for hours of conversation and laughs.

As shellfish farmers, we talk about *terroir*, we understand how our products capture the natural essence of where they are grown. The very nature of what we farm, where we grow and our farmer culture allow us to share the intersection of food and community with others who value our trade and craft. We intrinsically know the value of setting information and socially mature actions over the model of high volume, cheap food. Richard succinctly states, "Cheap is not a value to cherish in food."

Food producers are unique. We build community through food. This occurs at a time when we need inspiration, a respite from our hectic lives and a moment to connect with others.



Arriving in your Mailbox Soon...

The Annual Resource Catalog

With the goal of effectively and efficiently connecting our Grower and Allied Members, PCSGA is pleased to release the inaugural Annual Resource Catalog. It's our hope that this tool will provide new opportunities for business interactions and shellfish industry innovation!

With this first edition under our belt, PCSGA welcomes your feedback and ideas for the 2017 publication. Please e-mail pcsga@pcsga.org with questions, comments, and concerns.

If your company would like additional copies of the Resource Catalog, please contact the PCSGA office, 360-754-2744.

Updates from the Last Frontier, Juneau AK

Connie Smith
Assistant Director, PCSGA

A trip to Juneau to meet with legislators in Alaska's state capitol typically is accompanied by gray clouds, dense fog and a steady drizzle. February's trip, however, broke the mold and set the stage for a successful visit, in spite of the dismal fiscal climate the state is facing.

I joined Jim Aguiar, Eagle Shellfish and VP of the Alaska Shellfish Growers Association (ASGA), and Ian Fisk, ASGA's lobbyist, to meet with legislators and state agency personnel to discuss issues facing the industry. Of greatest concern to growers in Alaska is the cost of PSP testing by the Dept. of Environmental Conservation (DEC). DEC shoulders the cost of testing, however there is a grave concern that funding is drying up and the financial burden will soon shift to the growers. Currently, growers are responsible for transporting shellfish samples to the lab in Anchorage, and for those whose farms are in extreme remote locations, that usually means a trip by plane, boat and then car. Costs add up quickly, so the added burden of the cost of the test, itself, is worrisome.

Attention was given to a new bill, HB 300/SB172, which speaks to permits for shellfish hatcheries. An increase of the application fee from \$100 to \$1000 is being considered. That, along with other poorly written language concerning the definition of 'hatcheries', makes this bill one to watch.

Sadly, the Mariculture Revolving Fund Loan has been largely inaccessible to growers from its inception, as evidenced by the fact that only one grower has successfully received funding to date from the loan program. The \$5M in the fund is in danger of being swept away and returned to the state's budget. With luck, the program will remain intact.

One bit of good news is the Governor's newly formed Mariculture Task Force. The task force consists of 11 members, one of which will go to a shellfish grower. The task force's vision is to develop a sustainable mariculture industry, producing shellfish and aquatic plants for the long-term benefit of Alaska's economy.



Pictured from left to right: Connie Smith, Rep. Andy Josephson, and Jim Aguiar (Eagle Shellfish)

PCSGA Welcomes CJ Phipps Onboard!



CJ started at PCSGA this January in the midst of planning the 'DC Walk the Hill' event. As Administrative Assistant, she is busy scheduling and organizing meetings while learning about the Association.

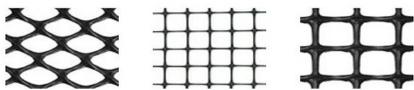
Born and raised in Shelton WA, CJ enjoys spending time at the beach. With both parents working in the shellfish industry, she has received a hearty dose of bivalve

culture that is deep-rooted in her heart.

CJ plans to finish her degree in Office Administration from South Puget South Community College this upcoming year. In her down time, CJ enjoys spending time with her family, baking pastries, and quilting. When you call the PCSGA office, CJ will greet you with laughter and her easy going personality.

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Shucked Verses
By, Norm Olsen

Olsen and Son Oyster Company,
Willapa Bay WA

4:30 AM, he's at it again, the skipper walks out his front door. Like the work of a clock, he walks down the dock and fires up the dredge with a triumphant roar.

He meets with his crew 'neath skies far from blue, as they ready to cast off the lines. Setting sail in the dark is no walk in the park, but the men on this boat pay no mind.

They're different than most, though you won't hear them boast 'bout the hours and toil they endure. 'Tis part of this living some find unforgiving, but a rich way of life it ensures.

Men of oysters they be, blazing trails pure and free of the turmoil and strife of the masses. No desires have they for the wants of today by so many who sit on their asses.

Through the wind and the rain, and the fog they'll persist, taking pride in their duties of season. There's work to be done, to the beds they shall run, needing no more incentive or reason.

A fine lot they are, and rightfully so, their place in this world is well needed. For this world they feed with the crops that they grow, by the blood sweat and tears they have seeded.



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Olympia WA, Legislative Day and Reception

Dave Steele, Rock Point Oyster
PCSGA Board Member at Large

January 26, 2016 marks the first time that the PCSGA has held a Legislative visit in Washington State and due to its success, may become a repeat event. There were approximately 10 growers that participated in meetings with 5 senators and 8 representatives with a goal to educate them about the Washington Shellfish Initiative and to gain their support. The politicians were very receptive and it was truly worth our time.



Dan Hanson with HC Snail and Diz and Viki Schimke with Acme Seafood, Inc shucking oysters for the raw bar.

Later that same day, growers, agency heads, and legislators gathered at the Doubletree Hilton Hotel for the Washington Legislative Reception. The large crowd feasted on a great seafood spread and had a chance to discuss our issues and desires with many political leaders. Thanks to all of the companies that provided fresh seafood, shucked oysters, and represented our industry in one of the most memorable ways possible. All those in attendance remember these events whenever we later approach them with concerns.



The Molluscan Broodstock Program - Since Conception 20 Years Ago

Chris Langdon
Professor of Fisheries at the Coastal
Oregon Marine Experiment Station
Hatfield Marine Science Center
Oregon State University

The Molluscan Broodstock Program (MBP) was initiated in 1996 at the Hatfield Marine Science Center (HMSC), Oregon State University, as a USDA Special Project. The late Senator Mark Hatfield and HMSC Director Lavern Weber were instrumental in obtaining funding for this initiative. Since that time, MBP has produced about 1200 families of Pacific oysters over six generations with the goal of improving farm yields. MBP oyster grow out sites have stretched from Homer, Alaska, to Tomales Bay, California and in 2015, MBP sent a selection of families to the Big Island of Hawaii. MBP has also collected and propagated new stocks of Kumamoto and warm-water Pacific oysters (Midori) from the Ariake Sea, southern Japan.

The oyster industry has worked in partnership with MBP, providing sites and resources for evaluating new families and stocks as well as numerous trips to DC to maintain political support for continued funding. In 2003, industry support resulted in the establishment of USDA/ARS programs for shellfish genetics and ecology at HMSC. The ARS shellfish genetics program works in collaboration with MBP and is essential for the long-term strength of shellfish genetics and breeding on the West Coast.

Selected MBP broodstock are currently being extensively used for commercial production of diploid Pacific oysters by three of the four major West coast hatcheries. Feedback from growers and hatcheries indicates that MBP stocks have greater yields and increased consistency when compared with those from unselected oysters. The “seed crisis” that started in 2006, has resulted

in MBP focusing on improving larval performance under ocean acidification (OA) conditions. Current research indicates that MBP larvae perform and set better than larvae from wild broodstock under both “normal” and OA conditions.

Long-term, MBP will develop improved oyster stocks for industry to use to adapt to rapidly changing ocean conditions as well as to exploit new market opportunities, but this effort will require sustained commitment and funding by all!



For more information, contact Chris Langdon: chris.langdon@oregonstate.edu or Blaine Schoolfield (MBP Manager): schoolfm@oregonstate.edu or visit the Molluscan Broodstock Program page on Facebook.



Cohort 25 interim data collection in Willapa Bay, WA with Charles Bosse (Taylor Shellfish), Kim Preston (MBP algologist), and Claudio de Melo (Federal Univ. of Santa Catarina, Brazil).



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Columbia River system, forest and fish management, and more. You will experience the “bigger picture.”

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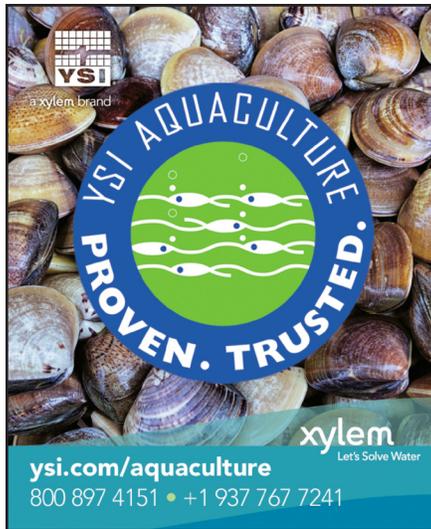
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With recruitment underway, PCSGA encourages you to apply or refer any potential candidates to this leadership program. Some PCSGA growers are AgForestry graduates and are available for guidance. E-mail pcsga@pcsga.org to connect with these folks.



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Becky Mabardy

Outreach and Project Coordinator, PCSGA

After months of wind and rain, the clouds parted to reveal a marvelously sunny day to kick off the 2016 PCSGA Beach Clean-Ups. This effort, on March 17th, marked the 23rd clean-up demonstrating shellfish grower's environmental advocacy and action to remove marine debris from South Puget Sound. With 21 boats on the water and 106 volunteers, approximately 120 miles of bays, inlets, and islands were scoured for rubbish. A total of 82 cubic yards (yd³) of marine debris was removed from these shorelines; 80.5% was general trash (primarily Styrofoam and drainage tube) and 19.5% was aquaculture debris (primarily non-plastic predator netting, oyster cages, and clam sacks). The greatest quantity of debris was located near Arcadia and the south shore of Harstine Island.

Aquaculture debris totaled 16 yd³, which is slightly more than typical. Between 2005 and 2014, spring beach cleanups have yielded an average 12.2 yd³ of aquaculture gear. As would be expected, there is generally more debris in the spring than fall due to blustery winter conditions. This spring marked a thorough clean-up effort, and served as a reminder for responsible and continuous attention to aquaculture gear and potential marine debris that could enter our waterways.

PCSGA can never offer enough thanks to all who gave their time and energy to remove marine debris, and what a difference each pair of hands made toward this tradition of environmental stewardship! Huge thanks to the shellfish companies who contribute to the PCSGA cleanup efforts a regular basis: Taylor Shellfish, National Fish and Oyster, Seattle Shellfish, and Chelsea Farms.



We hope everyone who participated enjoyed themselves and felt a great sense of satisfaction and connection to their community and beach.

Free Second-Hand Gear

Throughout the beach clean-up, volunteers make a pile of reusable aquaculture gear including: floats, oyster bags, rebar, clam sacks etc. If you are interested in free second-hand gear, please arrive at the beach clean-up sites between 12-2pm on the event day and have your pick of the litter! It's not too early to mark your calendars for the Fall Beach Clean-Up:

Thursday, September 8, 2016.

For specific inquires and suggestions regarding the PCSGA beach clean-ups, please email or phone
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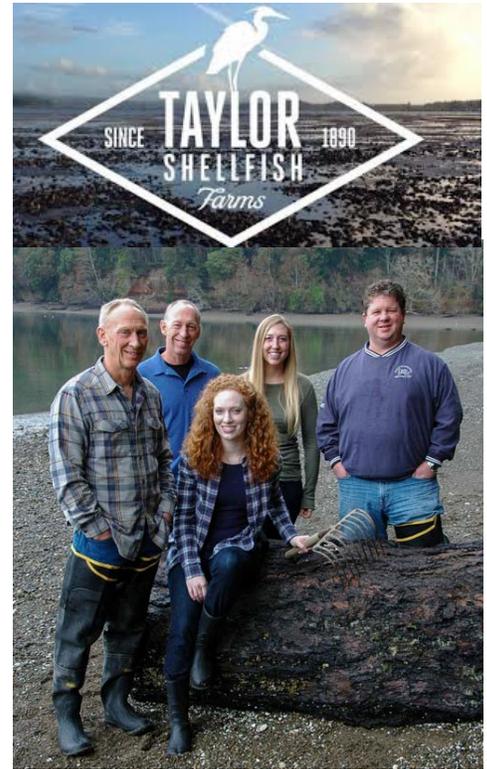
Taylor Shellfish First Farm in United States Achieving ASC Certification

Source: (e) thefishsite.com
March 10, 2016

The Shelton WA based company received ASC (Aquaculture Stewardship Council) Bivalve Certification for its operation in the South Puget Sound basin, which comprises the Hood Canal and the area south of the Tacoma Narrows, including Olympia and Shelton. The certification was achieved after an on-site assessment by independent auditors SCS Global Services. Chris Ninnes, ASC's CEO, announced the company's certification on March 7th during Seafood Expo North America in Boston.

The ASC Bivalve Standards evaluates the performance of shellfish operations based on: natural environment and biodiversity; water resources and water quality; species diversity, including wild populations; disease and pest management; resource efficiency; and social quality issues.

"Taylor Shellfish Farms is dedicated to providing our customers with the freshest, highest quality shellfish available and doing so in ways that respect the environment, our communities and the people who work for us," said Bill Taylor, company CEO. "We believe the ASC to be the gold standard for assessing shellfish farm performance, and we are



very gratified to have completed the work to become the first farm in the U.S. to achieve this certification."

"This achievement distinguishes Taylor Shellfish as an innovator in the seafood market and is proof of their strong commitment to responsible farming and good social practices," said Chris Ninnes, CEO of the ASC.

The company plans to actively certify all its farm operations in Washington State.

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Vitsab's Smart Shellstock TTI-Labels were developed with the help of federal and state regulators. Designed to mirror vibrio growth according to the dynamic relationship between time and temperature, these cost-effective tools monitor shellstock from harvest to plate.

Working on "Stop Light" technology, the round window turns green when activated and remains green for 90% of its life. The window turns yellow then red if a rise in temperature is detected within operating parameters. These labels are about the size of a postage stamp, completely food-safe, and can be attached to your harvesting container, shell fish tag, or other packaging.

Start Color



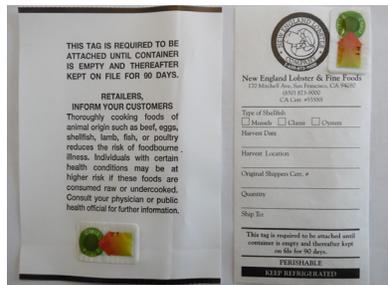
End Color



The National Shellfish Sanitation Program is the federal/state cooperative program recognized by the Food and

Drug Administration and the Interstate Shellfish Sanitation Conference that regulated fresh shellfish produced and sold for human consumption. One of the main themes throughout this guide is maintaining proper temperature control as a Critical Control Point.

Since an essential part in minimizing the risk of vibriosis is temperature control, there is a need for cost-effective, time/temperature monitoring devices to service the shellstock market. The risk associated with a single package of temperature abused shellstock can result in many people being adversely effected. The ultimate goal is safety, the reduction of illness and even death from consuming raw shellfish. Time/temperature monitoring is accomplished by Vitsab's Smart Shellstock TTI Labels. Now you can confirm your products were delivered under proper temperature control.



Samples available at PCSGA office. To request, please email pcsga@pcsga.org.

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Public Statement from Wiegardt Brother's Incorporated

Wiegardt Brothers Incorporated (WBI) and its President Fritz Wiegardt entered into plea agreements to resolve and were sentenced for criminal misdemeanor violations of the Clean Water Act. The plea agreements were made with the U.S. Attorney's Office and the U.S. Environmental Protection Agency. The misdemeanor violations arose from reporting and discharge requirements under the National Pollutant Discharge Elimination System (NPDES) permit issued by the Washington State Department of Ecology for WBI's oyster processing facility in Nahcotta, Washington.

Both WBI and Mr. Wiegardt regret and apologize for the NPDES violations. In approximately 2002, a new general manager was hired for WBI. In addition to other responsibilities at WBI, the new general manager was responsible for administering the NPDES permit and operating the wastewater treatment system which included taking required monthly samples of the facility's effluent discharge pursuant to the NPDES permit. When the new general manager was hired, Mr. Wiegardt instructed him to follow the same sampling protocol the general manager had followed while working for his former employer, another oyster processing facility in the Willapa Bay area. Mr. Wiegardt was aware that the water samples were required to be taken at the facility's waste water discharge pipe, but he did not have further discussions with the new general manager as to where and how the samples should be taken.

At some point, Mr. Wiegardt became aware that the general manager was not taking the samples at the discharge pipe because the hydro sieve, which filtered the water prior to discharge, was not working properly. Mr. Wiegardt did not approach the general manager to determine where he was taking the required monthly samples. In approximately 2012 to 2013, Mr. Wiegardt learned that the sampling location was wrong; and Mr. Wiegardt allowed the improper sampling to continue for at least one more year.

Because the sampling location was wrong, reports to the Department of Ecology on wastewater discharges--such as fecal coliform counts--were inaccurate.

As soon as Mr. Wiegardt and WBI became aware of the NPDES permit violations, WBI voluntarily disclosed the violations to the Department of Ecology in August 2014, which led to the federal investigation and ultimately to the sentences that were handed down on September 25, 2015.

WBI and Mr. Wiegardt cooperated fully with federal investigators. In addition, WBI and Mr. Wiegardt cooperated fully with the Department of Ecology to make personnel changes and extensive facility upgrades, including a new wastewater treatment system, to ensure compliance with the Clean Water Act.

The Clean Water Act violations at issue were related to the waste water treatment system at the WBI facility and entirely separate from oyster production and health or safety standards. Oyster product from the WBI facility was tested by an independent laboratory during the investigation and all health standards were met. In addition, a third-party expert evaluated and confirmed that no environmental harm to Willapa Bay resulted from the NPDES violations related to reporting sampling results. WBI is committed to ensure that all oyster products meet health standards, that the facility meets its NPDES obligations, and that the Willapa Bay marine environment is protected.

In accordance with their sentence, WBI and Mr. Wiegardt paid criminal fines and community service payments, have implemented an environmental management system, and will be subject to a probation period.

Any inquires can be directed to:
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Bart Freedman (206.370.7655)
Ankur Tohan (206.370.7658)



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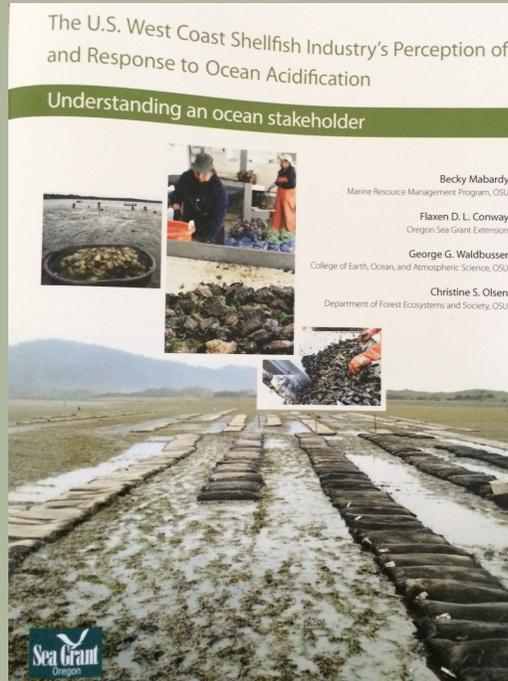
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West Coast Shellfish Industry and Ocean Acidification

In 2013, shellfish growers and PCSGA members along the West Coast responded to an online survey about their perception of and responses to ocean acidification. Becky Mabardy, PCSGA Outreach and Project Coordinator, conducted this research in collaboration with Oregon Sea Grant while attending Oregon State University. Her results were recently published as the third installment in a Sea Grant series titled "Understanding an ocean stakeholder". Printed copies of this publication are available at the PCSGA office and can be mailed to you upon request by emailing pcsga@pcsga.org. Please distribute freely to any interested parties.



An electronic version can be downloaded online at: <http://seagrant.oregonstate.edu/sppubs/us-west-coast-shellfish-industrys-perception-and-response-ocean-acidification>



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2016

April

4-8: Pac Rim Conference, Scottsdale AZ

12-15: EPA Rec. Waters Conference, New Orleans LA

15: Ecosystem Services Photo Contest Submission Due

19: PCSGA Board Meeting via Conference Call

22-24: Astoria Seafood and Wine Festival, Astoria OR

23: Coastsavers Beach Cleanup, Pacific County WA

23-24: Oregon Ag Fest, Salem OR

May

1: SLURP, Fish Tale Brewing, PCSGA Fundraiser, Olympia WA

7: Hama Hama Oyster Rama, Lilliwap WA

7: San Francisco OysterFest, Golden Gate Park CA

15: Ecosystem Services Photo Contest Submission Due

17-18: PCSGA Board Meeting LIVE

28-29: ShrimpFest, Brinnon WA

June

4-10: Washington State Shellfish Week

14: PCSGA Board Meeting via Conference Call

15: Ecosystem Services Photo Contest Submission Due

18: Arcata Bay Oyster Fest, Arcata CA

July

12: PCSGA Board Meeting via Conference Call

15: Ecosystem Services Photo Contest Submission Due

16-17: Allyn Days - Geoduck Festival, Allyn WA

20: Taylor Shellfish-Tival, Samish WA

August

8-9: Oregon Coast Economic Summit; North Bend, OR

9: PCSGA Board Meeting via Conference Call

15: Ecosystem Services Photo Contest Submission Due

September

8: PCSGA Fall Beach Clean-Up, South Puget Sound, WA

10: Brady's World Famous Oyster Feed, Aberdeen WA

13: PCSGA Board Meeting via Conference Call

15: Ecosystem Services Photo Contest Submission Due

23-24: Blues and Seafood, Ilwaco WA

October

1-2: OysterFest, Shelton WA

7-9: Dungeness Crab & Seafood Festival, Port Angeles WA

10: PCSGA Board Meeting, Week of Conference

10-13: PCSGA Shellfish Growers Conference and Tradeshow, Chelan WA