PCSGA

PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

LONGLINES

Volume 18 No. 3
Summer 2015

RAW OYSTER CONSUMPTION STUDY p.5

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PCSGA

PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

The PCSGA works on behalf of its members on a broad spectrum of issues, including environmental protection, shellfish safety, regulations, technology, and marketing.

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Your comments and questions about Longlines are invited. Please email: pcsga@pcsga.org

Cover Photo: Charlie Stephens of Kamilche Sea Farm in Totten Inlet, WA, examines the growth of young Mediterranean Blue mussels. Photo by Luke Kelly.

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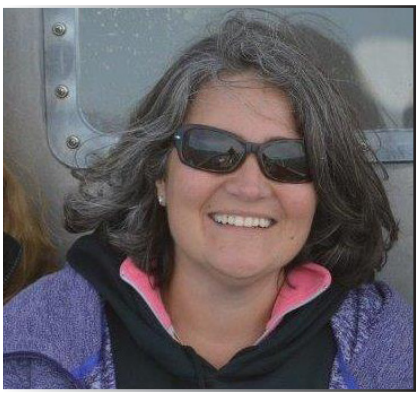
What the Tide Brought In

Notes from the Director



Margaret Barrette, PCSGA Director.

This summer marks my 5th year with you here at PCSGA. It's been five incredible, action-packed, years! Together we've accomplished many things, shared many laughs, struggled through some challenges, and continued to work towards a future filled with amazing Pacific Coast shellfish.

In many ways we've been very successful these past five years. PCSGA has focused on strengthening our relationship with state and federal decision makers, the research community, the general public and a host of others. Organizationally, we've got an engaged Board of Directors and active Executive Committee. In terms of membership, we've successfully grown the Allied Member Program. In 2010, we had a half-dozen allied members at the annual trade show. Last year's tradeshow was nearly 5-times larger and allied members are actively involved in PCSGA's programs and events. Our grower membership numbers remain healthy and we continue to welcome new members to our organization.

From this strong foundation, it is time to determine the Sssociation's path forward.

In May, the PCSGA Board began a Strategic Planning process with the hopes of having the opportunity to identify the things we do well and those not so well, determine where the organization should go, and outline a plan for getting there. At the core of the plan are a set of priorities (still in draft) that focus on maintaining and improving the ability to grow shellfish, strengthening local economies, and providing service to a diverse and growing membership.

Board members have been instrumental throughout this process. However, in order for this strategic planning to be successful, we need to hear from you! Specifically:

- What do you want the association to do for you?
- What issues are most important to you?
- How do you prefer to be communicated with?

Whether a strategic planning process is taking place or not, the PCSGA door is always open to you. I want to hear your questions, thoughts and concerns. I want to know the ways you'd like to see PCSGA grow and how the Association can better meet your needs. You are a valued member. This organization exists because of you and for you. I look forward to helping this strategic planning process unfold in a manner that reflects your voice in PCSGA.

Be well,
Margaret Barrette

Annual Shellfish Conference Registration Now Open

The 69th Annual Shellfish Growers Conference and Tradeshow will take place September 22-24 in Hood River, Oregon at the Best Western Hood River. Learn more and register at www.pcsga.org/annual-conferences/.

To reserve a room at the hotel, call 800-828-7873 and ask for a room in the PCSGA block. Conference registration must be made separately from hotel room reservations.

Pearls from the Prez

Inspiration is the fuel that helps generate interest, innovation, and drives us forward when running our businesses. What inspires you? I often meet with my co-workers and brainstorm about the latest problem or future changes we may foresee. Looking back at our history is another great resource, which may help prevent repeated mistakes. I am also inspired by others in our business, who have experimented and found improvements in farming. Those folks are all around us and need to be put forward as our champions and coaxed into expounding on their victories. Some of the simplest ideas, when put in the right context, can result in extraordinary results.

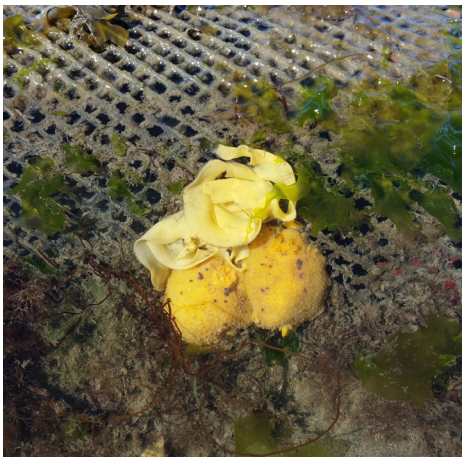
We all need to network more and reach out to others to share our experiences. The other day, a group of dedicated PCSGA members gathered to discuss shoreline debris and how to reduce the volume of aquaculture material that escapes farms and ends up on the shore. That discussion and some of the ideas tossed around have inspired me in several ways. Here are a couple of ideas used by some: put your oyster shell cultch in recyclable wire tubs rather than disposable bags and use alternative closures for oyster grow-out bags, like reusable clips or hooks, rather than zip ties. Both cultch bags and zip ties are found in large numbers along the shorelines and reflect poorly on our industry.

If we all share our experiences about what works well, somebody will usually adopt or modify those concepts to fit their particular circumstances and benefit from the exchange. That is the true power and benefit that all members of PCSGA should receive, but not without everybody's help. I challenge each of you to contribute your best ideas to Longlines, the Annual PCSGA Conference grower's workshop, or the PCSGA Board and subcommittees, and become an inspiration to us all. Your ideas can address the debris problem, best farming practices, organizational practices, successful shellfish culture, hatchery and remote setting activities, or any other concepts that inspire you. Thank you for your time and contribution to this amazing organization. Together we will be strong and successful.

-Dave Steele

Ecosystem Services Photo Contest Winners

April's winning submission by Weatherly Bates of Alaska Shellfish Farms shows how suspended culture of oysters provides ample space for annual kelps and seaweeds to grow on. The kelp sets in the winter and grows at an astonishing rate in the spring, making an underwater forest under the farms. The kelp provides habitat for invertebrates and fishes and is also used by herring to spawn their eggs on.



May's winning submission by Bill Dewey of Chuckanut Shellfish shows sea lemons mating and laying eggs on a predator net in Samish Bay. This species feeds almost exclusively on sponges which are abundant on the nets on Chuckanut Shellfish.

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

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Farmers' Corner

Written for you, by you - this is a place to share all the news that's fit to print from your farm. Celebrations, aquisitions, new ventures, the sky's the limit. Submit your news any time! Send to pcsga@pcsga.org.

In March, Ian Jefferds with Penn Cove Shellfish hosted Governor Inslee (center, in blue) on a visit to Whidbey Island to look at mussels with Dr. Emily Carrington from the University of Washington.

No fancy power scows on Calm Cove Oyster family farm. Just a semi-retired couple of 40 years transplanting singles to ground closer to the house. Jonnel Fagergren steadies the 18 ft Lowe aluminum work boat after harvesting a little over a ton of shell stock.

This is "Shell's Angels," Coast Seafood Company's entrance in the 2015 World Championship Kinetic Sculpture Race in Humboldt, California.

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Raw Oyster Consumption Study

By Jack Cheney
University of Washington, School of Marine and Environmental Affairs

Today raw oysters are ubiquitous on fine-dining menus across the U.S. This trend has coincided with unprecedented industry growth here on the Pacific Coast from companies like Taylor Shellfish Farms and Hog Island Oyster Company, matched on the Atlantic Coast by Island Creek Oysters and numerous farms in the Chesapeake Bay. This isn't news for the seafood industry, but to date, the academic community has not reviewed raw oyster consumption trends. This oversight has been exposed amid recent concerns of *Vibrio parahaemolyticus* (*Vp*) illnesses on the Atlantic Coast. Current *Vp* risk assessment models lack relevant raw oyster consumption data to properly inform public health authorities.

This study aimed to provide key consumption data to the Washington Department of Health and other public authorities in the Pacific Northwest while creating a scalable blueprint for future studies on a national level. We also hoped to inform our partner restaurants and oyster farms with useful consumer marketing information. 485 survey responses were collected over the course of eight months, from Fall 2014 to Spring 2015. Half of the participants were polled at Seattle-area restaurants and seafood retailers through survey cards while the other half completed an online version of the survey. The survey contained fourteen questions crafted with public and private sector interests in mind, spanning topics like serving size, consumption frequency, oyster size preferences and demographic information.

Because Vibrio risk assessment models are based on risk per oyster analyses, the most informative data point for public health officials was average raw oyster serving size. Our study yielded an average serving size of 6.23 raw oysters per serving – a value greater than expected. On average, participants ate raw oysters once every two months. When considering price, freshness, place of harvest and time of year, freshness was found to be most important while price was least important.

These findings describe an average consumer that doesn't eat raw oysters particularly often, but chooses to indulge when they do, eating a half-dozen and valuing a fresh, familiar, local product over a cheap product. Brand recognition will be paramount for new and existing growers, as 49% of participants specified a favorite oyster variety. A preferred oyster length of three inches speaks to both risk assessment and oyster production considerations. Finally, public health authorities should separate serving size analyses in half-dozen increments. When consumers chose to eat more than six raw oysters they almost always ate a full-dozen.

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Washington Vibrio Workshop Questions

By Laura Johnson
Washington State Department of Health

The Washington State Board of Health adopted a revised Vibrio parahaemolyticus Control Plan Rule (WAC 246-282-006) for oysters in April 2015. The new control plan went into effect on May 1, 2015. In anticipation of the new requirements, the Washington State Department of Health (DOH) conducted ten trainings throughout shellfish harvesting regions this spring.

DOH is currently working on an online training module and conducting one-on-one trainings with shellfish inspectors to be sure the shellfish industry is knowledgeable about the requirements. DOH also put together a website to provide additional information and resources for the commercial shellfish industry at: http://www.doh.wa.gov/CommunityandEnvironment/Shellfish/CommercialShellfish/ForIndustryMembers/VibrioRuleRequirements.

A number of questions were commonly asked during the training. DOH is continuing to add to and update the website with these questions. A few of them are highlighted here.

The deadline passed for the harvest plan approval process, when do I have to get my harvest plan to the Department of Health?

The rule became effective May 1, 2015. All deadlines prior to that date don't apply since the rule is not retroactive. We will require harvest plans be submitted by March 1, 2016 for harvesters and dealers intending to harvest or sell shellstock oysters from May through September 2016.

We request that harvesters and dealers begin working on these plans and either:

1. Submit a plan at your earliest convenience to your inspector for review and approval. An approved plan would just need to be signed and dated to meet the requirements in 2016.

2. Draft a plan and work under that plan in 2015. Then submit a harvest plan to your inspector for review and approval by March 1, 2016.

Remember, you must also submit a copy of your harvest temperature record with the harvest plan. The Department of Health will review and respond within 30 days of receiving harvest plans.

What can I use to take temperatures?

Air temperatures can be taken at the harvest site with a verified thermometer or using a weather forecast for the area. If a forecast is being used, the harvest plan must state the source and the station.

Harvest temperatures must be taken at the harvest site. Harvest temperature may be either internal oyster tissue temperature or water temperature. The harvest plan and harvest temperature record should state if internal tissue temperature or water temperature is being taken. Thermometers must be verified weekly unless DOH approves less frequent verification in the harvest plan, such as if a company plans to follow manufacture specifications and they are provided to DOH with the harvest plan.

If you are interested in recommended devices, speak with other shellfish harvesters or dealers or look at scientific instruments as these will often require less frequent calibration than inexpensive stem-style thermometers.

If I am wet storing oysters in a different growing area than the original harvest site, when do I have to record the air and harvest temperatures?

If oysters are being wet stored in a different growing area than the original harvest site, the air and harvest temperature must be recorded at the original time of harvest and when the oysters are harvested from the wet storage site. The oysters must be submerged at the wet storage site within the time allowed in the time of harvest to cooling for the most stringent risk category. The oysters must remain submerged for at least four hours before harvest from the wet storage site.

For example, if oysters are being moved from a risk category 1 growing area to a risk category 3 growing area, then the original harvest must comply with the risk category 3 requirements and the wet storage harvest must comply with the category 3 requirements. If the oysters are being moved from a risk category 3 growing area to a risk category 1 growing area, then the original harvest must comply with the risk category 3 requirements and the wet storage harvest must comply with the category 3 requirements. When oysters are wet stored for 14 or more days, then the harvest from wet storage should comply with the time to cooling requirements for the wet storage site. Wet storage can only occur at approved wet storage sites and permitted facilities. Shellfish tags must always reflect the original harvest date, wet storage harvest date, and identify that the shellfish were wet stored.

If you have questions, please visit the DOH website and speak with your shellfish inspector.

Vibrio Detection Model Developed

Source: (e) Science News
April 23, 2015

In a major breakthrough in shellfish management and disease prevention, researchers at the University of New Hampshire (UNH) have discovered a new method to detect disease-carrying strains of Vibrio parahaemolyticus. The new patent-pending detection method is a significant advance in efforts to identify shellfish harboring the bacterium. The new detection platform will provide rapid and specific quantification of the invasive strain.

The new detection method is available for immediate use, and can benefit researchers and managers, food inspectors, wholesalers, and retailers. It could form the basis for a diagnostic test for widespread use in both environmental detection and clinical diagnosis. In addition to enabling the research community, the UNH Innovation office will be seeking a partner to license the patent-pending innovation for commercial applications.

ISSC Registration Waivers Available

Registration waivers valued at $425 for the Interstate Shellfish Sanitation Conference are available. The meeting will be held at the Sheraton Hotel in Salt Lake City from October 24 –29, 2015. To qualify for a waiver, you must not have attended the conference in the past. Past waiver recipients have made these comments about ISSC:

*It's a great way to meet industry reps from other regions.
*Be part of creating and changing new rules and regulations.
*There is power in numbers - a strong representation of West Coast growers is like saying, "We've had enough!" It's time to stand up to over-regulating and get back to the basics, like harvest production.
*Learn first-hand rules that are adopted or being considered.
*We can't expect others to be our voice for us when it comes to rule-making.

If you are interested in a waiver, contact Margaret Barrette at margaretbarrette@pcsga.org

Workshop for Advancing Tools for Modeling, Forecasting and Managing for Vibrio in Washington State

By Rohinee Paranjpye,
Microbiologist, NOAA

On April 28-29, 2015 a workshop was held in Lacey, WA to prioritize needs, develop new tools, and outline a plan that may aid in improving harvest and post-harvest strategies to reduce the risk of V. parahaemolyticus-related illness from oysters. Nearly 60 people - shellfish growers and tribal co-managers along with representatives from federal agencies, state agencies, and academic researchers - attended the workshop.

The identified needs were prioritized using facilitated discussions. More frequent sampling of supply chain product, environmental sampling, identification of coolest water areas for re-submergence of oysters and monitoring of less risky areas for V. parahaemolyticus were identified as monitoring priorities. The development of a purge calculator and maps of growing areas with air and water temperature were prioritized as tools that would be most useful. Models linking intertidal exposure of oysters, tissue temperature and levels of V. parahaemolyticus as well as hydrodynamic models predictive of Vibrio levels and illness were considered to be high priorities for modeling of V. parahaemolyticus. Finally, understanding the role of differences in harvest and culture methods, development of a post harvest method that keeps the oysters alive, identification of biogeochemical factors that lead to increase in V. parahaemolyticus concentrations and purge rate of oysters were identified as research questions that were of higher priority to the attendees.

The results of this workshop are being used to formulate work plans and specific objectives for the remainder of 2015 and beyond. Participants will remain in contact through e-mail updates on progress and through future workshops to further refine strategies to reduce illness risk in the Pacific Northwest and to maintain the strong reputation of the region for quality oysters.

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The Reinvention of OceansAlaska

By Peter Metcalfe, OceansAlaska

Hatchery manager Ron Zebal (right) displays oyster broodstock for Julie Decker (left) of Alaska Fisheries Development Council and Britteny Cioni-Haywood of Alaska Division of Economic Development, observed by assistant manager Conor Eckholm.

Alaska has a newly operational hatchery, OceansAlaska of Ketchikan, providing shellfish farmers and FLUPSY operators with oyster and geoduck seed bred to the demanding conditions of Alaska.

"These are clean, hard seed, which should do well in any waters," says hatchery manager Ron Zebal, a shellfish breeding veteran with over 42 years of experience establishing, designing, installing, and operating commercial shellfish hatcheries in Washington, California, Florida, and Virginia; Tasmania, Australia; Tongoy, Chile; and Sonora and Baja California, Mexico.

"We are timing our oyster seed production to a spring, early summer peak and geoducks to peak in the early spring and mid-fall," says Zebal.

Due to a late start in 2015, OceansAlaska's spring seed production is a bit late for most Alaska shellfish farmers, so Zebal is drawing contacts throughout the West Coast to build demand for OceansAlaska's first seed crops.

The original mission for OceansAlaska focused on education and marine research in conjunction with its well-equipped research scale shellfish hatchery. But after several years, the organization had not produced any seed and by March 2014 was on the brink of dissolution. To twist a saying, the lack of money was at the root of all the evil that befell OceansAlaska. Operational funds, always difficult for non-profits, dwindled to the vanishing point. Staff and board resignations followed.

Invigorated by the challenge, a new board took charge and began a laborious restructuring of the organization. Financial records were in disarray and creditors were wondering if they'd ever be paid. By the end of 2014, records were in order, creditors reassured, and a long-term loan secured from the Ketchikan Gateway Borough.

In January 2015, the board hired Ron Zebal along with assistant manager Conor Eckholm, a born and raised Alaskan with 15 years of experience working oysters in Humboldt Bay, CA. After months of retro-fits and installations, the first batch of oyster seed was sold in May.

As of early June 2015, OceansAlaska has an inventory of 12 million 1-5mm pacific oyster seed, and has begun geoduck spawnings with an expected first crop of one to two million geoduck seed ready for fall plantings.

Next year, Zebal expects to hit targets of 30 million 3-5mm oyster seed, and four million 3-10mm geoduck seed.

Shellfish seed, anyone?

Algae tanks, aglow with grow-lights in the long twilight of a northern sunset. The floating hatchery is moored at Saxman, just south of Ketchikan, Alaska.

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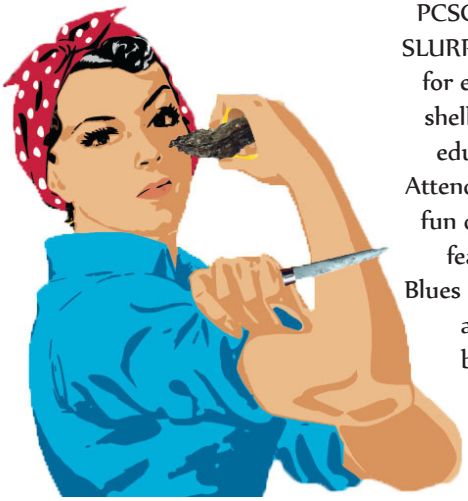

PCSGA's 17th annual SLURP raised $27,000 for efforts to restore shellfish habitat and educate the public. Attendees had a lot of fun doing it! SLURP featured music by Blues County Sherriff, an auction, food, beer, wine, and a Shuck & Slurp competition.

People's Choice Awards:

Best Shellfish Dish: Staple and Fancy Mercantile
Best Shellfish Dish Runner Up: Fish Tale Brew Pub
Best Wine: Chateau Ste. Michelle
Best Wine Runner Up: Marchetti Wines
Best Brew: Fish Tale Brew House Oyster Stout

Shellfish Restoration Fund Recipients:

Pacific Education Institute - $7,000
Northwest Straits Foundation- $2,500
BTC Fisheries & Aquaculture Program - $2,000
Willapa Watershed Restoration Management - $1,500
AgForestry Leadership Program - $1,000
Pacific County Museum - $1,000
Grassroots Garbage Gang - $500
Washington Agriculture in the Classroom - $500
PCSGA South Sound Beach Cleanups - $3,500

Photo Credits: Luke Kelly
www.thomsenkellyphoto.com

Oregon Legislature Designates Annual Oregon Oyster Week

By Kessina Lee
Office of Oregon State Representative McKeown

The 78th Oregon Legislative Assembly recently passed House Bill 3539, declaring the fourth week in April as Oregon Oyster Week.

Oysters and oyster cultivation have been a vibrant part of the history of the Oregon coast since the days of the California gold rush. Today, in addition to producing some of the finest oysters anywhere, Oregon oyster growers are partnering with Oregon State University, developing broodstock that is better adapted to our changing ocean conditions, and supplying that broodstock to growers up and down the West Coast. A number of our Oregon oyster producers are family businesses that have been in operation for several generations, and continue to be a vital part of our coastal culture and economy. Many of Oregon's coastal communities have oyster-themed events in April, and Oregon Oyster Week will promote these festivities, encourage tourism, and celebrate oyster growers. The bill unanimously passed both the House and Senate chambers and will be signed by Governor Kate Brown by the end of June.

Farm to Table Shellfish Tour for the Folks Who Feed Us

By Ashley Fisher
Outreach Coordinator, PCSGA

The sky poured rain on the morning of June 1, as staff from PCSGA, Chelsea Farms, Taylor Shellfish, and National Fish & Oyster set up for a Shellfish Farm to Table tour. But fortune favored us as the sky dried up just before a bus full of restaurant chefs, seafood retail staff, and culinary arts students arrived at Chelsea Farms for the culmination of the tour.

The first restaurant-focused tour of its kind for the association, PCSGA coordinated the tour as an educational opportunity to teach guests about shellfish safety, shellfish growing practices, "merroir," geoduck preparation, and oyster-wine pairings. An inspirational lunch prepared by Xinh Dwelley of Xinh's Clam & Oyster House was served on the beach.

PCSGA staff look forward to organizing future opportunities to educate and inspire people involved in preparing or selling shellfish for public consumption.

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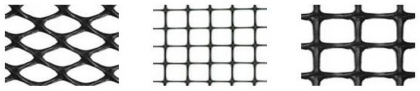
Above & Below the Water



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Chefs, culinary arts students, and seafood retailers tour geoduck growing beds at Chelsea Farms.

Shina Wysocki of Chelsea Farms demonstrates how to prepare a geoduck ceviche.

Marco Pinchot of Taylor Shellfish teaches guests how to pair oysters and wine. Miranda Ries of National Fish & Oyster (right) shucks product.

Overcoming the Algae Bottleneck with Algae Concentrates

By Eric C. Henry, Ph.D.
Research Scientist, Reed Mariculture

The need for a large supply of quality microalgae is one of the most significant challenges to expanding bivalve hatchery capacity. Ample feeding with microalgae is the key to hatchery productivity, but often conditions do not permit sufficient production of natural phytoplankton.

Fortunately, there is a solution to the problem of ensuring reliable supplies of microalgae for hatcheries: the use of liquid algae concentrates. Reed Mariculture Inc. (Campbell, CA) produces Instant Algae® concentrate feeds designed specifically for shellfish. Reed Mariculture's Shellfish Diet® 1800 provides a nutritionally balanced combination of six specially-selected strains of Chaetoceros, Pavlova, Tisochrysis ("T-Iso"), Tetraselmis, and Thalassiosira, providing a range of cell sizes from 4-12 microns.

Oyster larvae fed on Shellfish Diet®

This mixed diet has demonstrated success with a variety of bivalves including oysters, clams, mussels, and scallops. It provides excellent nutrition for all life stages, from first-feeding larvae all the way through broodstock, increasing both growth rates and survival. The FAO bivalve hatchery manual states: "The culture of algae accounts for about 40% of the costs of rearing bivalve seed to a shell length of about 5 mm in a hatchery." Many bivalve hatcheries are finding it more reliable and economical to feed only Shellfish Diet 1800. With no need to grow their own microalgae, the cost and complexity of running a hatchery is significantly reduced, now making it possible for even small-scale bivalve growers to set up their own hatcheries.

Pacific Coast shellfish growers using Instant Algae® include Nevor Shellfish Farm, Drayton Harbor Oyster Co., and Kachemak Shellfish Growers Co-op. Ian Jefferds, General Manager of Penn Cove Shellfish, reports that "Shellfish Diet has allowed us to remotely set our mussel larvae and feed them a healthy and consistent diet. With the hatchery space and diet in demand for oysters, we have been able to continue our mussel sets remotely by using Shellfish Diet."

(from left) Eric C. Henry, Ph.D., Research Scientist, Reed Mariculture Inc. and Tim Reed, Founder & President, Reed Mariculture, Inc.

Reed Mariculture produces algae from continuously-harvested cultures, so the algae are always in their healthiest rapid-growth phase. After harvesting by centrifuge, the algal cells are re-suspended in proprietary media of buffer salts to stabilize cell integrity and retain their full nutritional value. According to the FAO Manual on the Production and Use of Live Food for Aquaculture, "The density of harvested algal cultures generally ranges between 80 and 250 mg of dry weight per liter." The biomass dry weight of Shellfish Diet 1800 is 8% (80 g per liter), so one liter of Shellfish Diet is typically the equivalent of 320 to 1,000 liters of algal culture. All the algae species used in Shellfish Diet are also available as single-species Instant Algae® products, so hatchery operators have the option to create their own custom mix of species for particular applications.

Please visit www.reedmariculture.com for more information about Reed Mariculture products. A listing of our worldwide distributors is available at http://reedmariculture.com/distributor_information.php.

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Samish "90-Day-Blitz" Water Quality Plan

By Julie Horowitz
Office of the Governor, Washington

In an effort to boost water quality improvements in the Samish River and move more quickly towards upgrading 4,000 acres of shellfish growing area in Samish Bay, the Governor's Office, in partnership with Skagit County and Skagit Conservation District, launched a 90-day spring "blitz" aimed at re-opening Samish Bay.

The Clean Samish Initiative is a multi-agency effort that formed after fecal coliform pollution issues attracted regional attention in 2008 and resulted in the downgrading of 4,000 acres of shellfish growing areas to conditionally-approved in 2011. The Initiative has made big strides in improving water quality over the last five years. As improvements slowed, we recognized that the tools that got us 80 percent of the way there aren't the same ones we needed to tackle the last 20 percent.

In late February, the Governor's Office, Skagit County, and Skagit Conservation District brought together a team of on-the-ground experts for an intensive three day workshop to develop a 90-day plan.

The Governor's Results Washington initiative, that is helping save resources and improve how we serve Washingtonians by bringing Lean approaches from the private sector to government, led this workshop and applied Lean tools to this water quality problem.

The team included:
-Five state employees from three different agencies (Dept. of Ecology, Dept. of Agriculture, Dept. of Health)
-Four county staff from two different departments
-A conservation district staffer
-Two shellfish farmers
-A dairy farmer
-A Samish Tribe representative

Over the course of those three days, the team developed, approved, and lined up resources to implement a 90-day "blitz" action plan. This collaboration not only generated a plan to jump start a stalled effort, but also the eagerness to start implementing it the next working day. With an aggressive effort by local and state partners, many sources of pollution were found and fixes are underway.

There was significant progress over the 90 days. While bacteria concentrations were high during spring rain events and the Samish did not achieve the Dept. of Health standard for re-opening, the steps to hone in on pollution sources and work with property owners to fix those issues are advancing full-speed ahead.

This effort is an inspiring example of people coming together in support of an effort that ensures a healthy, clean environment and shellfish farming jobs in the community.

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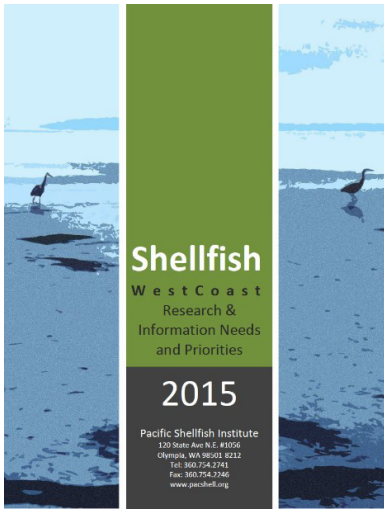
West Coast Shellfish Research and Information Needs: It's Time to Reset our Priorities

By Bobbi Hudson
Pacific Shellfish Institute

In the late 1990s the West Coast shellfish industry was heading into a new millennium. Advances in hatchery and nursery technology were significantly enhancing production, but Endangered Species Act (ESA) listed salmon runs were creating a new level of regulatory scrutiny. Challenges to the industry seemed limitless. To help position the industry to address its challenges, the Pacific Shellfish Institute (PSI) took the initiative to establish the West Coast Shellfish Research and Education Goals and Priorities. At the 1998 Annual Shellfish Conference, goals—and research priorities needed to achieve those goals—were established.

Since then, the "Goals and Priorities" document has evolved, along with the shellfish industry's information needs.



Countless public and private dollars have been invested in shellfish research in response to the ranking of priorities.

Today, new challenges have surfaced, while others remain. It's time to rank those challenges in order to prioritize the response. What should we respond to as a shellfish producing community? What are our priorities for research and education?

To facilitate priority-setting, PSI staff and its board of directors will lead a workshop at the 69th Annual Shellfish Conference & Tradeshow in Hood River, OR. Shellfish industry members are strongly encouraged to attend. Have your voice heard as the shellfish producing community establishes priorities for the next decade of shellfish research and information collection. Let's set a course to tackle some of the most pressing issues we've faced in our long history.

Goals may range from promoting selective breeding, disease and pest control, or testing new growing or processing methods. The outcome of the workshop will be circulated to research institutions, granting entities and resource management agencies to guide prioritization and funding of shellfish-related research. The outcome is also a tracked deliverable for the Washington Shellfish Initiative. You can view the existing "Goals and Priorities" document at: pacshell.org/pdf/ShellfishNeedsAssessment2011.pdf

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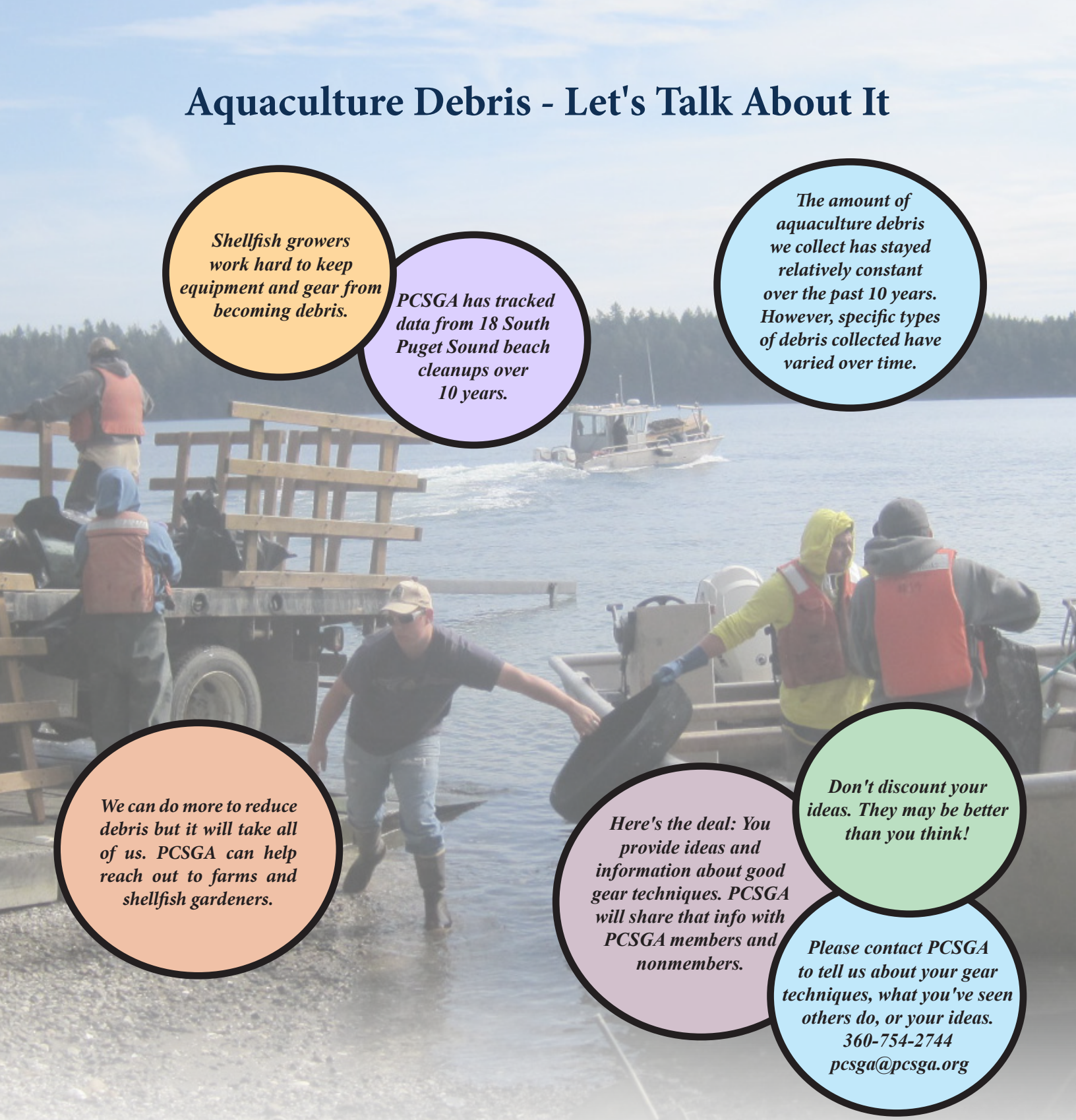

Shellfish growers work hard to keep equipment and gear from becoming debris.

PCSGA has tracked data from 18 South Puget Sound beach cleanups over 10 years.

The amount of aquaculture debris we collect has stayed relatively constant over the past 10 years. However, specific types of debris collected have varied over time.

We can do more to reduce debris but it will take all of us. PCSGA can help reach out to farms and shellfish gardeners.

Here's the deal: You provide ideas and information about good gear techniques. PCSGA will share that info with PCSGA members and nonmembers.

Don't discount your ideas. They may be better than you think!

Please contact PCSGA to tell us about your gear techniques, what you've seen others do, or your ideas.
360-754-2744
pcsga@pcsga.org

Here are some debris-reducing ideas to get us started.

-Farms could use oyster bags with reusable clips instead of zip ties.
-Cultch sacks that use cable ties could be hauled up to higher ground before clipping.
-Farms with restaurants can run their bags through a dishwasher and send them back to the farm to be refilled. Using milk crates instead of bags is another option.
-Geoduck farms can use recycled PVC pipes.
-There is a PVC recycling center in Mullalah, OR. Perhaps small growers could do a bulk run to dispose of PVC pipes.
-Some farms have stopped using mussel disks, which commonly wash up on beaches.
-Have divers clean the deep end of a beach where geoduck tubes commonly roll.
-There are other innovative solutions that you may know about. Please call PCSGA to share!

Nationwide Oyster App Newly Released

On June 25th, an app called Pearl launched nationwide. Pearl will be the first app to aggregate real time information about daily offerings from quality seafood restaurants. Created by Pearl LLC, the app will initially focus on the New York, Boston, and San Francisco markets.

pearl

LOCATE. LEARN. LOVE. OYSTERS

Pearl has exciting potential to change the way that people learn about and eat oysters at local restaurants. Pearl LLC has been fortunate to work with an exceptional group of restaurant and oyster farm partners to ensure the development of an enjoyable, informational, and fun app that is ready in time for summer dining.

The app has about 200 oyster farms and restaurants on board. Founder Sam Asher would like to connect with PCSGA member farmers to include West Coast oyster pages in the app. He needs photos and information such as flavor profile and culture method.

To include your oysters in the app, contact:
Sam Asher
sam@pearlapp.co
www.pearlapp.co
973-650-5598

Any suggestions for who should be crowned the next Prince or Princess of Tides at the Annual Shellfish Growers Conference in September?

Send your nominee names to Margaret Barrette at margaretbarrette@pcsga.org by August 1, 2015.

PCSGA's 2014 Princess of Tides, Sue Shotwell of Nisqually Indian Tribe, holding her award.

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July
5: *GrassRoots Garbage Gang Beach Cleanup, WA Peninsula*
8: *PCSGA Board Meeting via Conference Call*
11: *Shellfest at Twanoh State Park, WA*
15: *Shellfish-tival at Taylor Shellfish Farms, Samish, WA*
18: *Taylor Shellfish Farms Seed Sale*
19: *Allyn Days Geoduck Festival, Allyn, WA*
25: *Griffin Neighborhood Association Farm Fest, Olympia, WA*

August
18: *PCSGA Board Meeting via Conference Call*
27: *Taylor Shellfish Farms Seed Sale, Shelton, WA*

September
21: *PCSGA Board Meeting, Hood River, OR*
22-24: *69th Annual Shellfish Growers Conference and Tradeshow, Hood River, OR*
24: *PCSGA Annual General Member Meeting, Hood River, OR*

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