

PCSGA



PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

LONGLINES

Volume 18 No. 4
Fall 2015

UPDATE: OREGON SHELLFISH INITIATIVE p.5

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

What the Tide Brought

Notes from the Director



Margaret Barrette, PCSGA Director
With Maasai Leader, Tanzania

Sometimes I forget to pick up my head and look around. I mean r-e-a-l-l-y look around. The pace of life is so fast. The passage of months feels like weeks. People grow up. People grow apart. If you don't occasionally lift your head to authentically experience what's around you, things will be missed.

I joined PCSGA in August of 2010 and the years have literally flown by. I realize my head has been down for much of it and it was time to take a look around. In doing so, I've found that the board and staff have been in need of some new energy – a new plan forward, identification of priorities, and recommitment to the organization's mission and vision for the future. Members will experience the results of this realization in the form of a new Strategic Plan. There is much work ahead but I believe the reward will be worth it.

Every once in a while we need to lift our collective heads and look at our individual role within our community. Are we equally investing our talents toward our collective success? Or are only a few contributing? This introspective review is difficult. Sometimes it takes the will to do something completely differently; pull yourself from the comfortable space into a completely different role.

As we welcome a new PCSGA board, I've invite each of them, regardless of if they have served multiple years or if they are a first-year member, to set aside their expected path and standard approach and explore new ways to contribute to the organization. I think we will see new leaders who keep stepping forward engaging members through regional meetings and discussions. I believe these new experiences will only make PCSGA stronger.

I'm trying this approach at home too. My family Jeff, Peter (15), and Annie (13) changed our scenery for a bit this summer. We moved away from our normal, comfortable routine and roles and went to Tanzania for two weeks. We lived in a small remote village, volunteered at a school and spent time with the nomadic Maasai Tribe. While this experience will not put an end to the persistent teenage sibling nonsensical battles, I hope it gives my family a new fresh perspective on our lives both individually and as a family. If this fails, the fall back plan may employ our newly acquired skills in Maasai spear throwing. HEADS UP!

Be well,
Margaret Barrette

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Connie Smith

Longlines Editor
Becky Mabardy

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

Cover Photo:
Pacific oysters along the shores of Long Island, Willapa Bay, WA
Photo by Becky Mabardy

120 State Avenue NE #142
Olympia, WA 98501
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360-754-2744

Join PCSGA to Walk the Hill in Washington DC

February 1-5, 2016

Every year PCSGA members meet with federal representatives and agencies about the issues most important to the shellfish industry, and you are invited.

In-person visits from the farmers who work the tideland is the strongest, most effective way to make shellfish industry concerns and interests known.

Funding assistance for the trip is available to PCSGA members through the PCSGA Enrichment and Development Fund.

For more information, contact PCSGA at (360) 754-2744 or pcsga@pcsga.org

Pearls from the Prez

We are once again moving into night tides and getting ready for fall. Life at Rock Point's farms has been very busy with expansion still underway. It seems like we see some new equipment, supplies, or employees arriving on a frequent basis and production continues to increase. I greatly appreciate the collaboration and advice provided by fellow shellfish growers. The PCSGA side of my life has gotten too busy and I have decided that it's time for somebody else to act as president. I will be stepping down at the next board meeting, yet will continue working on the executive committee as "member-at-large".

The PCSGA board recently created a new strategic plan, which was a time-consuming and challenging task, yet very worthwhile. The board and members will see some significant change during the implementation of the new plan. This is similar to a business plan, which all companies should develop. Do you have a business plan or strategic plan for your own company? I completed one over the past year and that plan now guides my managers and me as we move from one season to another. Developing a plan can be a difficult task, but can be started by jotting down some of your key goals and a description of what you and your company represent. Once you get started, then the rest does flow a bit easier, although predicting future trends and how you will react to them is tough. Branding is another aspect of a plan that I have not mastered yet. I used to feel that my business was too small for branding to be important and used the excuse that I was licensed as a harvester or dealer selling to other dealers. I then learned that the business can grow significantly, aided by branding.

These days, social media is a very strong marketing tool that many of us just don't understand adequately. Mastering social media with a communications plan is important when consumers of your products want to know everything about what they are eating, including the origin, farming methods, and sustainability of your products. The PCSGA strategic plan does include an outreach and communications plan component and the board does intend to develop those in the near future. The hope is that all members will get involved in some form of outreach and help carry the message of our great products to the general public in order to maintain the current amazingly strong market.

Good health and continued success to you all.

Sincerely,
Dave Steele

2015-2017 PCSGA Board Members:

WA: Puget Sound Region

Lisa Bishop, Little Skookum Shellfish
Thomas Bloomfield, Seattle Shellfish
Duane Fagergren, Clam Cove Oyster Co.
Kyle Lentz, Chelsea Farms
Miranda Ries, National Fish and Oyster Co.
Bill Taylor, Taylor Shellfish
Vicki Wilson, Arcadia Point Seafoods

WA: North Puget Sound Region

Ian Jefferds, Penn Cove Shellfish LLC

WA: Hood Canal Region

David Steele, Rock Point Oyster Co.

WA: Willapa Grays Harbor Region

Nick Jambor, Ekone Oyster Co.
Kathleen Nisbet Moncy, Nisbet Oyster Co.
Brian Sheldon, Northern Oyster Co.
Richard Wilson, Bay Center Mariculture

California:

Greg Dale, Coast Seafoods Company
John Finger, Hog Island Oyster Co.

Alaska:

Weatherly Bates, Alaska Shellfish Farms

Oregon:

Svein Wiese-Hanson, Pacific Seafood

Ecosystem Services: Photo Contest Winners



JUNE: Nathan Henson shows how longline oyster beds in Tillamook Bay provide protection from predators at a local jellyfish hangout.



JULY: Becky Mabardy of Taylor Shellfish illustrates how oyster grow bags provide refugia and habitat for sculpin fry in Dabob Bay.



AUGUST: Shina Wysocki of Chelsea Farms displays squid eggs on an oyster cage.

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



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Farmer's Corner

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

PCSGA thanks our growers who donated clams (800 lbs) and mussels (200 lbs) to the Evergreen State College all-campus Clam Bake! This event commemorated the first day of the school's new president, George Bridges. Special thanks to Duane Fagergren for initiating this interaction and facilitating all the donations.



Staff members from Congressman Kilmer, Congressman Heck, and Senator Cantwell's offices visited Puget Sound in August. PCSGA shellfish growers met and greeted our local politicians at Xinh's Clam and Oyster House. Connecting with these folks gave them a better understanding of the West Coast shellfish industry and what issues shellfish growers are facing.



Transitioning to night tides:
What does this mean to you?

"Since our business operates out of our residence, we go from telling our employees, 'Don't wake us up when you head out early in the morning' to, 'Don't wake us up when you head out late at night!' Gotta love this life..."

Vicki and Steve Wilson
Arcadia Point Seafood



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Update: Oregon's Shellfish Initiative

By Kessina Lee, Oregon Sea Grant

Working as the Sea Grant Legislative Fellow staffing Oregon's Coastal Caucus, I was given the opportunity help craft House Bill 2209, the Oregon Shellfish Initiative. The intent of the Shellfish Initiative is to support Oregon's oyster industry and preserve wild stocks of oysters for recreational harvest. The oyster industry in Oregon has already felt the impacts of ocean acidification and hypoxia, and a major component of the Initiative includes funding for continued research and monitoring capabilities.



I had the opportunity to visit Hatfield Marine Science Center in Newport and see Dr. Chris Langdon's lab which is home to the Molluscan Broodstock Program (MBP). Dr. Langdon and his grad students have been breeding and selecting oyster lines for productivity in changing ocean chemistries. The Shellfish Initiative contains an appropriation for the MBP, as the legislature sees that this research is vital to understanding how different molluscan shellfish will respond to fluctuations in the carbon cycle, and helping the shellfish industry mitigate those impacts through broodstock that is best adapted to the conditions. The Shellfish Initiative also appropriates funds to Oregon State University for ongoing support of the research partnership and monitoring seawater chemistry with Whiskey Creek Hatchery.

The Initiative also increases funding to the Oregon Department of Agriculture for more frequent water quality monitoring in Tillamook Bay, with the aim of being able to reopen the bay for oyster harvest

more quickly after a closure. If the Tillamook Bay pilot project is successful, the increased monitoring could be expanded to other estuaries in the future.

The Shellfish Initiative also convenes a Shellfish Task Force which will report back to the legislature by 2016 with recommendations on how to continue to enhance and expand the commercial oyster industry while addressing the impacts of ocean acidification and hypoxia on both cultivated and wild shellfish. Ideally, Sea Grant will continue to play a role as a bridge between research, industry, agencies, and coastal communities as the Shellfish Initiative recommendations are implemented.

The bill had a successful public hearing and work session in the House Committee on Ag & Natural Resources. There is a national shellfish initiative, Washington has a shellfish initiative, and California has one in the works, so the timing seems perfect for the Oregon Shellfish Initiative, and all the parties are committed to moving it forward.

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PCSGA Welcomes

Becky Mabardy:

Outreach & Project Coordinator



PCSGA is excited to welcome Becky to our community. Becky has many interests and closely identifies herself as a waterwoman. Having grown up on the West Coast and Hawaii as an avid surfer and sailor, she lives her life by the wind, the waves, and the tides.

Becky's background includes working for NOAA in Honolulu as a Observer on international, long-line tuna fishing vessels. She also collaborated with fishing communities on Maui to determine the potency of a neurotoxin found in predator reef fish, and the associated human health implications.

Since 2011, she has passionately worked with West Coast shellfish growers, researchers, and community members to share information and bridge boundaries between audiences. It only seems natural that she found her niche here with PCSGA.

Becky got her first taste of oyster culture working alongside Dr. Chris Langdon's MBP lab and Dr. George Waldbusser at Oregon State University. Although she learned about oyster biology and physiology, animal husbandry, broodstock genetics, and tide work... she found her true calling in outreach!

The primary focus of Becky's Master's research was based on the perspectives of the West Coast shellfish industry facing ocean acidification. As a student, she presented her work at the PCSGA Annual Conference and Tradshow in 2013 and achieved an honorable mention. Additionally, she published her results in the Journal of Shellfish Research, August 2015.

PCSGA is thrilled to have Becky as part of our team, working as an advocate for the economically and ecologically valuable shellfish industry.

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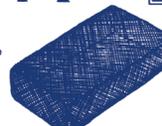
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The XPRIZE: Awarded to Company Helping to Monitor Ocean Acidification

Source: (e) Verge, July 20, 2015

The Wendy Schmidt Ocean Health XPRIZE was a global competition (launched in 2013) that challenged teams of engineers, scientists and innovators to create pH sensor technology that affordably, accurately and efficiently measured ocean chemistry from its shallowest waters... to its deepest depths.



Sunburst Sensors LLC is a small Montana-based company that makes sensors for marine and freshwater applications. Their products work by drawing in water samples and then mixing them with purified dyes. The sensor then shines a laser on the mixture to determine the water's pH. It's a process known as spectrophotometry — a way of figuring out the structure of a substance by measuring its capacity to absorb light.

Team Sunburst Sensors won the competition and was awarded \$1,500,000 from the foundation for developing equipment and technology for measuring ocean acidification. Sunburst Sensors won both of the grand prize for affordability and accuracy.

WANTED: Small shellfish farm sites and equipment.

Patriot Shellfish Farms LLC., owned and operated by our military Veterans, needs small shellfish farm sites. This is a vision of Dan Barth working with state and federal agencies, our shellfish farming community, and supporters of our Veteran community. Patriot Shellfish Farms LLC. seeks sites first in Washington State, then other states.

If you want more information on Patriot Shellfish Farms LLC, our Veteran community needing help, or have sites and equipment that may be useful to the Veterans please contact:
Daniel Barth, dbarth@localaccess.com
115 Grimes Road, Centralia, WA 98531

Tightening Security on Oyster Poachers in Alaska

Source: (e) Homer News, July 30, 2015

Alaska State Troopers charged four people in an alleged theft of about \$200 in oysters from a Little Jakolof Cove oyster farm. According to charging documents, owner Scott Fell estimated about 200 oysters went missing from his lantern nets. In response, he installed some game trail cameras and from the captured images, troopers identified the four suspects. One suspect is the Homer deputy harbormaster. They all face charges of fourth-degree theft and first-degree criminal trespassing.

Oyster poaching is an ongoing problem at Kachemak Bay oyster farms, said Marie Bader, president of the Kachemak Shellfish Mariculture Association. "A lot of time and human resources have gone into that particular oystery," Bader said. "For someone to nonchalantly come in to help themselves to prepared product is rather brazen." Poachers who take oysters not only steal product, but can damage the nets or even lose them in deep water.

A Homer lawyer representing an alleged poacher disputed the amount to have been taken and states that his client intends to plead not guilty.



OysterFest 2015 was a great success!

Thank you to all the volunteers and those who came out to support Skookum Rotary and PCSGA!

69th Annual Shellfish Growers Conference & Tradeshow: A Week in Review

The 69th Annual Conference and Tradeshow took place in Hood River, Oregon from September 21-24, 2015. Hosted by PCSGA and NSA - Pacific Coast Section, the conference was an opportunity for growers, researchers, agency staff, industry partners, and students to explore new ideas, consider public policy issues facing the shellfish industry, and share stories and learn from each other's experiences!

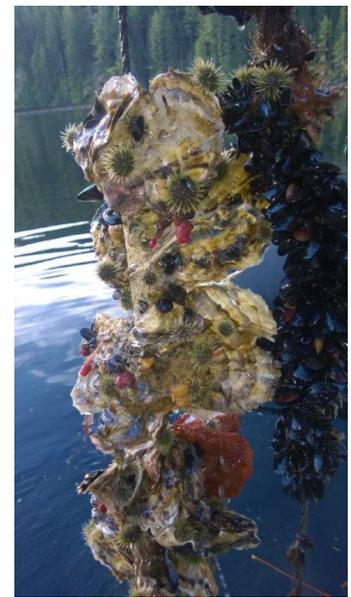
253 people attended the conference	6,450 dollars raised for John Lentz Profiles in Innovation Speaker Series and PCSGA Member Enrichment & Development Fund	12 gallons of shucked oysters donated for Grand Banquet
21 tradeshow booths, up from 7 in 2010	100 pounds of both mussels and clams donated for Opening Night Tradeshow Reception	65 gallons of coffee served



Shina Wysocki and Kyle Lentz introducing the key-note speaker, Ian Duthie with SeaPerfect in Tasmania.

Grand Prize Winner: Ecosystem Services Photo Contest

PCSGA members voted based on composition and photo caption



Paul Taylor, Shelton WA
Cultured oyster clusters serve as habitat for a multitude of species. Sea urchins also clean the oysters!



NSA's Annual Student Fundraising Competition, IRONCLAM raised about \$1,000 for student travel awards.

Schley Golf Scramble

The stakes were high and golfers were distracted by women in spa robes, bearing mimosas... the game ended with a three-way tie!



2015 Princess of Tides:

Maryanne Guichard

Collaborative, approachable, forthright, dedicated, creative - are all words that shellfish growers use to describe Maryanne and her work. She goes far beyond what is expected as a public employee, investing time and energy into Washington State's shellfish industry. Maryanne's contributions to the shellfish industry are immeasurable.



After the conference, folks toured Penn Cove Shellfish LLC, Samish Bay oyster farm.

From left to right: Achim Janke, Daryl Beerbower, Anna Preister, Roger (WHO), Chris Stott, Leon Stott, Alex Jack, and Ian Duthie.

8 Thank you to the planning committee, sponsors, tradeshow exhibitors, guest speakers, volunteers, and shellfish and auction donors for your many contributions!



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PCSGA thanks Ed Darcher with Willapa Watershed Restoration Management for his voluntary and self-motivated removal of marine debris throughout Willapa Bay. PCSGA awarded him \$1,500 from the SLURP Habitat Restoration Fund for his continued efforts. In return, the PCSGA gals got an educational ride around Long Island on his airboat!

We are looking for opportunities to acknowledge folks who go beyond what is required to maintain and protect marine habitats.

Please email pcsga@pcsga.com if you know of anyone deserving an award from the SLURP Habitat Restoration Fund.

The PCSGA 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.

Congratulations to this years recipients:

Marty Beagle, FryeCove Farms

Dan Hanson, HC Snail LLC

Please contact PCSGA if you are interested in applying for financial assistance, or making a donation to the Enrichment and Development Fund

For more information, please email pcsga@pcsga.org



Washington DOH Teams Up With NANOOS

By Becky Mabardy
 Outreach and Project Coordinator, PCSGA

A new tool on the NANOOS website is designed to help shellfish growers plan their harvest based on water temperature. In March 2015, the Washington Department of Health (WA DOH) adopted a revised Vibrio Control Plan (WA 246-282-006); the plan went into effect May 1, 2015. One of the plan revisions stated for “time of harvest” to be “cooling - reaching and maintaining 50 degrees F”, as vibrio is a very temperature dependent bacterium. The revised plan focuses on encouraging best management practices, reducing opportunities for vibrio growth after harvest, and restricting harvest when environmental conditions are ideal for vibrio growth. Changes in the control plan reflect an effort to reduce illness.

The WA DOH has added water temperature sensor data to the NANOOS network so the shellfish industry can monitor trends and make safer harvesting decisions. Deployment locations are prioritized based on the risk category of a growing area. Areas of higher risk are given priority over low risk areas. Site accessibility and cellular connectivity was also taken into consideration.

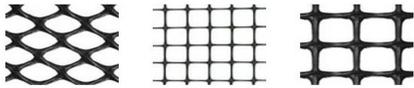
Note: At certain sites, the water temperature sensor is not submerged at low tide and will show no conductivity. This data should be disregarded.

PCSGA thanks the following members for hosting data loggers:

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- Nisqually Tribe Shellfish Farm
- Rock Point Oyster Company
- Sisters Point Shellfish
- Squaxin Island Tribe
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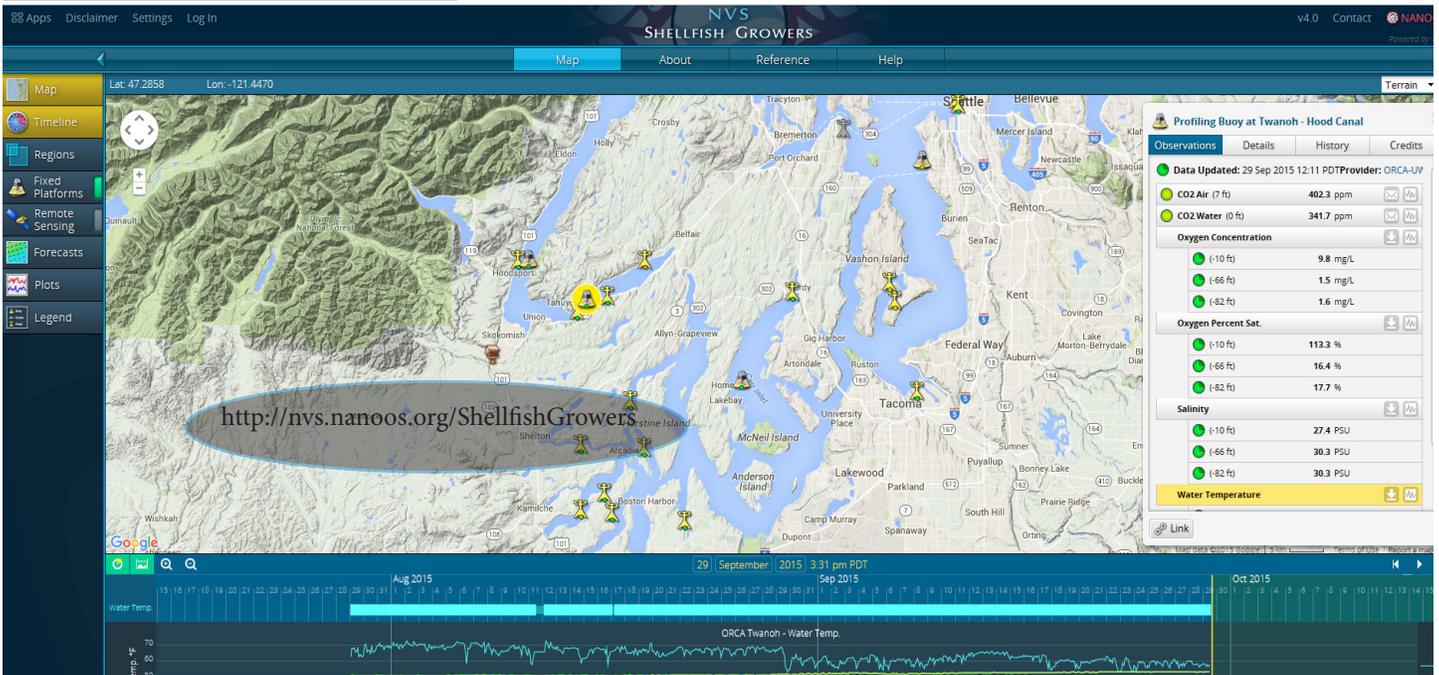


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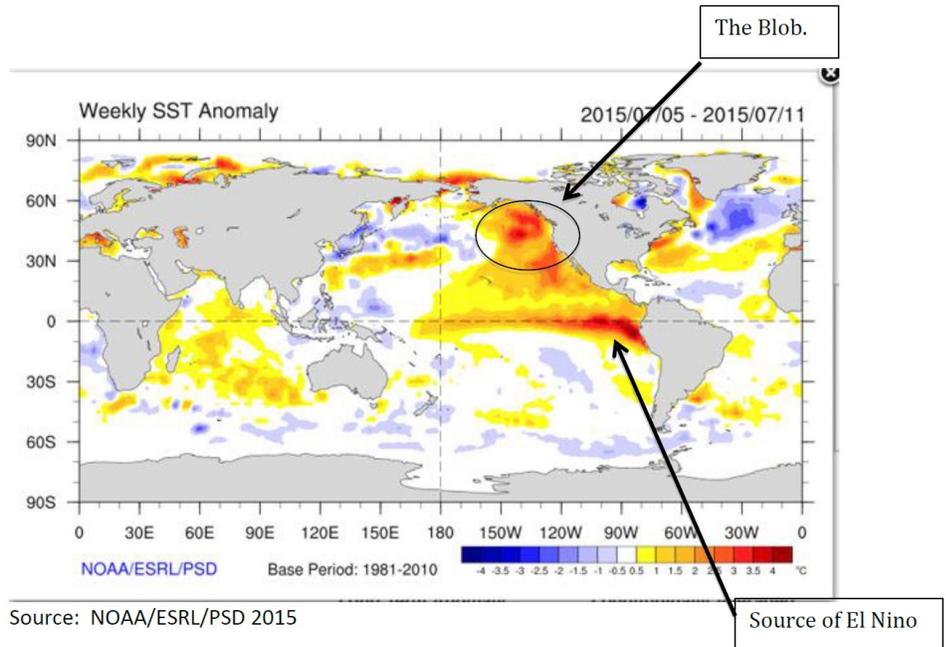
By Andrew Suhrbier
Pacific Shellfish Institute

The spring and summer of 2015 in the Northwest has been a hot one, filled with plenty of shellfish closures and a “blob” of warm water hanging off the coast. In the spring, the entire coast was closed to razor clam harvest due to a large and prolonged *Pseudo-nitzschia* spp. bloom that elevated domoic acid in razor clams, shutting down the commercial and recreational seasons by May 8th. The algae bloom grew to a huge size, eventually extending from southern California to Alaska. Dungeness crab fisheries on large swaths of the coast had to be shut down as well. The warm “blob” has been implicated in this tremendous bloom.

At the Pacific Shellfish Institute, we observed the outer coast craziness mostly from a distance, as our main focus was in Puget Sound this year. We began our summer *Vibrio parahaemolyticus* (Vp) research in June by looking at Vp levels in Central Hood Canal. With funding from Interstate Shellfish Sanitation Conference, we studied ways to avoid and purge the bacteria from oysters by holding them in deep water.

Oysters were collected from the Hama Hama beach and deployed at depths of 30 and 50 feet in mid June to avoid elevated Vp levels. Every week, Vp levels were sampled from and compared among oysters held at depth and oysters left on the beach. At 2 weeks, the submerged oysters contained 344% and 428% less Vp at the 30 and 50’ depths respectively, than the beach oysters. At 3 weeks the submerged oysters contained no detectable Vp while beach oysters contained a nominal amount.

We conducted additional trials of submerged oysters using temperature abused oysters from Hama Hama, Pickering Passage, and Jackson Cove. None of the samples came back with levels higher than the closure limit of 10,000 MPN, but Vp levels were reduced at 30 and 50 feet with neither depth displaying an advantage.



We hope to continue on the positive track of this study with project partners Hama Hama and other interested companies.

Paralytic Shellfish Poisoning (PSP), caused by the dinoflagellate *Alexandrium catenella* was also prevalent in Hood Canal this year as Hood Canal 1, 2, 5 and 6, Quilcene Bay and Dabob Bay each had closures this summer. Partnering with the Washington Department of Health, we decided to see if levels of the PSP also differed among the oysters held at depth. In contrast to the Vp studies, oysters held at 30 feet contained the most PSP toxin, an order of magnitude more than the intertidal oysters! Oysters held at 50 feet did not contain a detectable amount of the toxin, which may serve as a side benefit of deep water holding.

The results makes sense, due to the increased access to phytoplankton at the 30 foot depth and decreased access at 50 feet. But nature can be tricky and seemingly unpredictable at times; like most studies, this small experiment would need to be replicated and further validated before being used to prevent PSP.

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Give a Hand in PCSGA's Annual Beach Clean-Up

The biannual PCSGA beach clean-up is scheduled for Wednesday, October 21. Shellfish farmers and community, please volunteer to clean our South Puget Sound seascape! This is a group effort to collect debris, aquaculture related or otherwise. Meeting sites are located at the Aracdia Boat Ramp in Shelton and National Fish and Oyster in Nisqually. Enjoy a hearty hot lunch afterwards, compliments of PCSGA.

To participate and volunteer, please contact Becky Mabardy:
(360) 754-2744 or beckymabardy@pcsga.org.



Photo taken at PCSGA beach clean-up 2005
Since 2005, we have collected, sorted, and counted
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Plans from PSI: Eelgrass Research and Sea Cucumber Aquaculture

By Bobbi Hudson
Pacific Shellfish Institute

What do eelgrass and sea cucumbers have in common? Neither are shellfish, but both are the topic of research grants recently awarded to the Pacific Shellfish Institute (PSI). PSI's Bobbi Hudson, executive director, and Dr. Dan Cheney, senior scientist, are thrilled to begin the new NOAA Saltonstall Kennedy program funded research. Each will serve as a principal investigator to a team of scientists from multiple universities, state and federal agencies, non-governmental organizations and two hatcheries.



The topic of eelgrass will be addressed through both modeling and on-the-ground research, partnered with USDA's Dr. Brett Dumbauld and scientists from both OSU and UW. The team will determine the distribution of, and spatial relationship between, existing shellfish culture and eelgrass in several Pacific Northwest estuaries. They will also quantify the effect of shellfish culture on eelgrass, and its function as habitat for fish and invertebrates. The research aims to distinguish between actual and perceived environmental effects, meeting both science and management needs.



And although the giant red sea cucumber (*Parastichopus californicus*) falls outside PSI's usual shellfish-centric research portfolio, this invertebrate show promise for commercial-scale aquaculture. In both Alaska and Washington, wild fishery opportunities for sea cucumbers have been declining for decades, yet the region's cucumbers are in high demand in China. This inverse relationship between U.S. supply and market demand has prompted interest in aquaculture development. Furthermore, sea cucumbers are nutrient recyclers and are therefore excellent candidates for Integrated Multi-Trophic Aquaculture (IMTA). PSI and partners' research will include genetics, hatchery technology, and optimizing sea cucumber growth in captivity, including IMTA operations. Finally, the team will work to advance the permitting processes for sea cucumber aquaculture in Washington and Alaska.

If you'd like to learn more about these projects, contact PSI:
psi@pacshell.org or (360) 754-2741.

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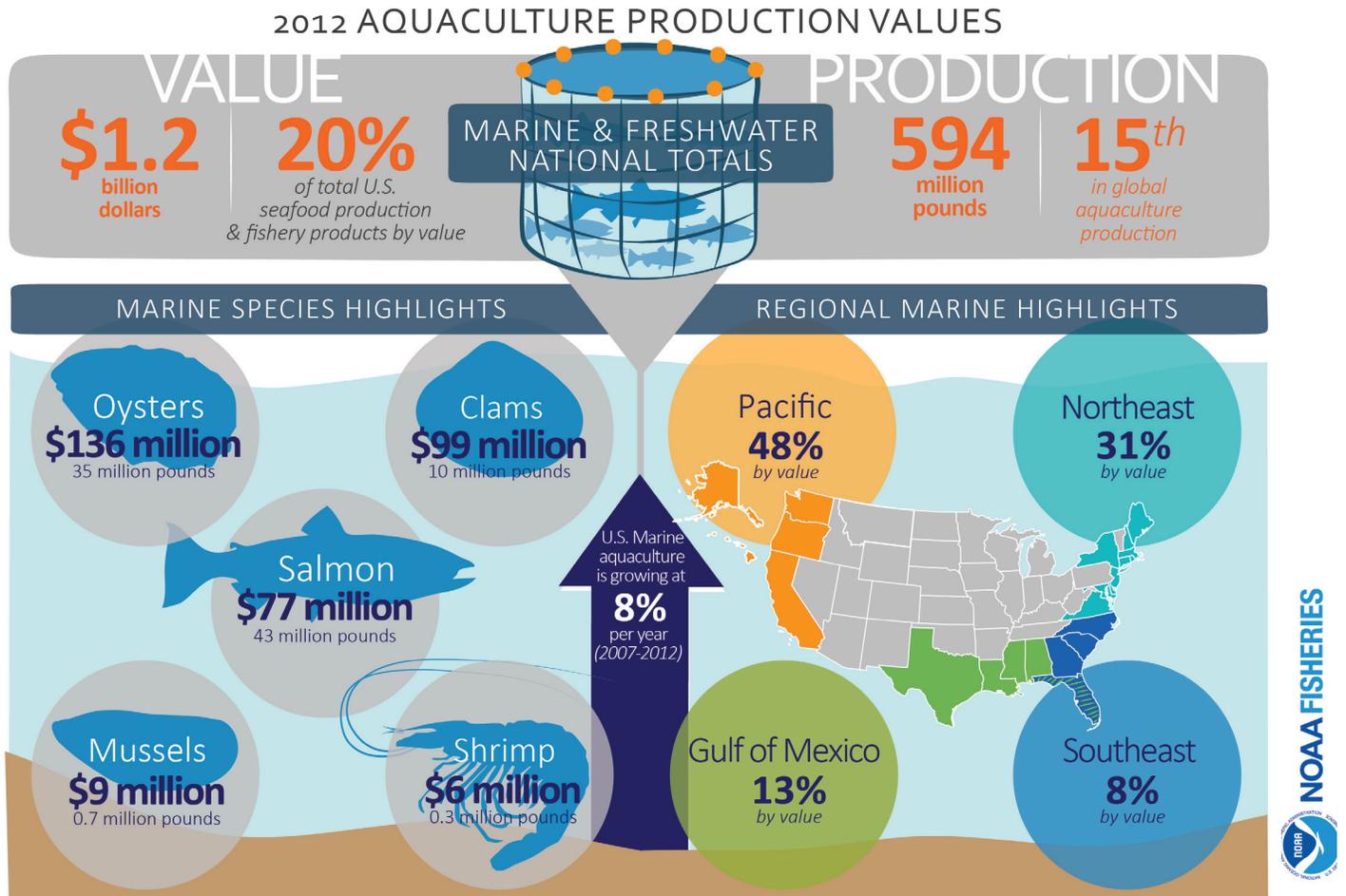
Source: (e) Undercurrent News, September 24, 2015

US marine aquaculture is growing at 8% per year, according to a new infographic release as part of the Fisheries of the United States (FUS) report.

Aquatic farmers produced 594 million pounds of seafood in 2012, valued at \$1.2 billion, according to the most recent FUS report. US marine aquaculture production grew at an average of 8% per year from 2007- 2012, mostly due to gains in marine shellfish production.

The value of total US aquaculture production now equals about 20% of the value of the US commercial wild catch.

The top US marine aquaculture species are Atlantic salmon (\$77m), oysters (\$136m) and clams (\$99m). While thriving shellfish industries can be found in all coastal regions of the United States, the Pacific Coast states produce the most shellfish (\$108.5m).



We want to hear from you!

What information and resources do you want to see on our newsletters, social media, and emails?
 Is there something you've liked about our communications that you're hoping we continue?
 What do you find tiresome that you think we should be communicating less?

Please call PCSGA or email pcsga@pcsga.org to share.

What's that you say? It's 10pm?
 That's ok. Call before you forget! (360) 754-2744

Reminder to Washington Oyster Growers From WA Department of Health

With the end of the Vp season, it is now time to report how many single, shellstock oysters were harvested this past summer to comply with the new Vp Control Plan rule (WAC 246-282-006). **The Form is due to WA DOH by December 31, 2015.**

- Oyster Production Reporting Form:
<https://fortress.wa.gov/doh/opinio/s?s=OysterReporting>
- Oyster Production Reporting Information:
<http://www.doh.wa.gov/CommunityandEnvironment/Shellfish/CommercialShellfish/ForIndustryMembers/VibrioRuleRequirements/OysterProductionReporting>

This report must be completed by December 31st each year by all shellstock shipper (SS) and shucker packer (SP) licensees that harvest oysters or purchase oysters directly from a licensed harvester (HA) for single oyster (shellstock) sales during Vp Control Plan months (May-September).

Only report oysters harvested by your company or purchased from a licensed harvester (HA).

Please contact Clara Hard if you have any questions:
clara.hard@doh.wa.gov or 360-236-3314.

**Tired of cooking the same thing?
Looking for a culinary adventure? Try...**

Mussel Paella

Ingredients:

- ¼ cup olive oil
- 1 small red onion, peeled and roughly chopped
- 1 red capsicum, seeded and roughly chopped
- 5 garlic cloves, peeled
- 1 tsp smoked Spanish paprika
- 1 tsp sweet paprika
- 2 medium tomatoes, chopped
- 1 generous pinch saffron
- 2 tbs olive oil, extra
- 1 cup Calasparra rice or risotto rice
- 2 bay leaves
- 3-4 sprigs fresh thyme
- 3 cups water
- salt and pepper, to taste
- 1.5 lbs mussels, scrubbed/debearded
- lemon wedges, to serve

Instructions:

Heat the olive oil in a wide frypan over medium heat. When hot, add the onion and cook until it starts to brown, then add the capsicum and garlic and continue to cook over medium heat. Add in both the paprikas, stir and cook lightly for a few seconds — don't overdo it or they will burn. Add the tomato and saffron, and cook a couple of minutes longer. Remove from the pan and puree to a paste.



In the same pan, heat another 1-2 tbs olive oil and fry the rice well until starting to color a bit. Add in the onion paste, the bay leaves and thyme and fry for about 5 minutes.

Stir in the water and pepper, and possibly some salt (the mussels will release its salty brine into the rice later). Bring to a simmer, then turn the heat to low. Cook the rice for about 25 minutes, without stirring, adding a splash of water if it's drying out.

When the rice is just about cooked and the moisture has mostly been absorbed (it shouldn't be soggy), add the mussels, pushing them well down into the rice. Continue to cook until the mussels open; you can cover with a lid to help steam them open, if you like. Once all the mussels have opened, remove from the heat and let the rice sit in a warm place for 5-10 minutes before serving with lemon, and a good crisp white wine or a beer.

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2015

December

Happy Holidays

8: PCSGA Board Meeting via Conference Call
15: Ecosystem Photo Contest Submission

October

13: PCSGA Board Meeting via Conference Call
15: Ecosystem Photo Contest Submission Due
21: PCSGA Fall Beach Clean-Up, South Sound
21-23: International Oyster Symposium, Cape Cod MA
24-29: Interstate Shellfish Sanitation Conference (ISSC), Salt Lake UT

November

6-8: Oyster Cook-Off and Craft Beer Weekend, Gulf Shores AL
10: PCSGA Board Meeting via Conference Call
14: Elliott's Oyster House, New Year, Seattle WA
15: Ecosystem Photo Contest Submission Due
19-20: Alaska Shellfish Growers Association (ASGA) Conference, Ketchikan AK