

PCSGA



PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

LONGLINES

Volume 19 No. 4
Fall 2016



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PCSGA



PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

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360-754-2744

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

What the Tide Brought In

Notes from the Director



PCSGA office gals celebrating the nuptials of Mrs. CJ Johnson.

I've used the phrase "it would take an act of congress" more times than I can count. Ironically I never, ever expected that I would actually witness that phrase playing out in front of my eyes.

For my entire time with PCSGA, working with the Army Corps of Engineers -- Seattle District -- has been tense, strained, forced, and downright unproductive. PCSGA's approach has been to engage decision makers outside the district and make the case for action. It has been slow and steady, engaging members of Senate and Congress and working with federal agencies to secure policy statements and direction.

We've had literally hundreds of meetings with congressmen/women, senators, and their staff and thus developed tremendous relationships. The messages we impart are about

the environmental and economic benefits of the industry, but also difficulty in expanding to meet the growing demand. All along folks seemed sympathetic and eager to help, but there didn't seem to be very many options.

In July, a seed was planted during a meeting with California Congressman Mike Thompson, a PCSGA Prince of Tide Award winner. After hearing our standard mantra, "not able to expand, not able to get permits under Nationwide Permit, etc.," the Congressman simply turned to his staff and said "Let's invite the Corps to the hill to meet with us." Bingo! Within days I heard from Thompson's staff and started planning.

Fast forward to September 8th, the Army Corps leadership arrived at a meeting room on Capitol Hill along with Thompson and seven of his Congressional colleagues. Thompson began with his calm, but strong, demeanor. Congressman Heck's (WA) words were more pointed, passionate, and demanding. It was clear that the Corps wasn't going to be able to wiggle out of the questioning and suggest everything was fine.

It was thrilling to see Corps Leadership squirm under the questioning of Congressmen Heck, Young (AK) and Kilmer (WA). It was both heartwarming and heartbreaking to hear Congresswoman DelBene (WA) admit that she's unable to respond to questions about the Corps' activities because she realized their actions are nonsensical. Congressman Larsen (WA), Huffman (CA), and Graves (LA) provided comments on how the Army Corps impacts their districts. However, what impressed me the most was: how articulate the members of congress were about our issues; how well they communicated PCSGA members' frustration and distrust of the Seattle District; and how adamant they all were about getting resolution! It was truly inspirational.

If any of you have ever wondered why we spend time in DC, offer farm tours, and track federal agency activities, the answer was extremely obvious right there in that meeting room. PCSGA's consistent engagement with congressional members and staff has resulted in strong, productive, relationships and ultimately the willingness to hold the Corps accountable during a simple, yet tremendously successful "act of congress".

Be well,
Margaret P. Barrette

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Outreach & Projects Coordinator, and Longlines Editor

CJ Johnson
Administrative Assistant

Cover Photo:
Pacific oyster seed growing at
Jamestown Pt. Whitney,
Hood Canal WA

Comments and questions about *Longlines* are invited.
beckymabardy@pcsga.org

“Past” Pearls from the Prez

Longlines: Volume 9, Number 3 -- Summer 2006

Pearls of Wisdom: *When your horse dies*

Author Unknown

Wisdom passed on from generation to generation says “When you discover that you are riding a dead horse, the best strategy is to dismount.” However, in government, more advanced strategies are often employed, such as: 1) Buying a stronger whip. 2) Changing riders. 3) Appointing a committee to study the horse. 4) Arranging to visit other countries to see how other cultures ride dead horses. 5) Lowering the standards so that dead horses can be included. 6) Reclassifying the dead horse as living-impaired. 7) Hiring outside contractors to ride the dead horse. 8) Harnessing several dead horses together to increase speed. 9) Providing additional funding and/or training to increase dead horse’s performance. 10) Doing a productivity study to see if lighter riders would improve the dead horse’s performance. 11) Declaring that as the dead horse does not have to be fed, it is less costly, carries lower overhead and therefore contributes substantially more to the bottom line of the economy than do some other horses. 12) Rewriting the expected performance requirements for all horses. And of course.... 13) Promoting the dead horse to a supervisory position.

Respectfully submitted by Bruce Brenner, PCSGA Treasurer 2006

It’s your stories that make “Longlines” worth reading!
E-mail pcsga@pcsga.org or call the office at
360-754-2744 with your ideas!

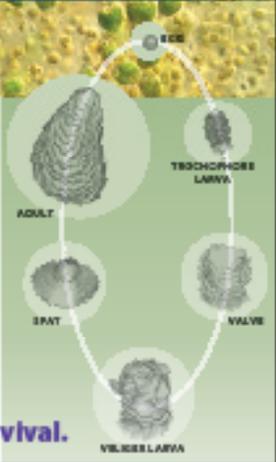
Congratulations to *Jonnell Anderson Fagergren*
of Calm Cove Oyster Co. You are the winner of the Summer 2016
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Ecosystem Services Photo Contest Winners



JULY: Brian Sheldon reveals the diversity of fauna growing on a float which provides services to many species in Willapa Bay.



AUGUST: Duane Fagergren shows a Puget Sound river otter foraging on crabs, *Cancer gracilis*, nestled among oyster seed bags.



SEPTEMBER: Scott Smith holds natural set Pacific Oysters that spawned from a patch of diploids and attach to a rock.

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

PCSGA Celebrates Fifteen Years of Beach Cleanups in South Puget Sound!

1,050 cubic yards of marine debris collected since 2005	2,200 approx. miles surveyed for litter since 2005	189 tires collected since 2005
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Spring 2006

"The PCSGA beach cleanup is great. Awesome to see how much the industry cares about the water and continually improving practices to reduce marine debris."

- Andy Gregory, Pollution Prevention Director
Puget Soundkeeper Alliance



Fall 2002



Fall 2016 Beach Cleanup Summary

89% of the total debris collected at the Fall 2016 South Puget Sound beach cleanup was not related to shellfish aquaculture!

Only 5.5 cubic yards of aquaculture gear was collected, and of that, 3 cubic yards were returned to farms by shellfish growers!

A warm thank you to the shellfish growers who volunteered this Fall:

- ARCADIA POINT SEAFOOD
- CALM COVE OYSTER CO.
- CHELSEA FARMS
- HC SNAIL
- LITTLE SKOOKUM SHELLFISH GROWERS
- NATIONAL FISH AND OYSTER
- ROB'S SHELLFISH
- SEATTLE SHELLFISH
- SQUAXIN TRIBE AND SALISH SEAFOOD
- TAYLOR SHELLFISH FARMS

Special thanks to the shoreline community and businesses that supported the event:

- BARB'S FAMOUS BBQ
- CONFLUENCE ENVIRONMENTAL CO.
- EVERGREEN STATE COLLEGE SHELLFISH CLUB
- NORTHWEST FARM CREDIT SERVICES
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Willapa Bay and Grays Harbor Take the Plunge!

Becky Mabardy, PCSGA
 Outreach and Project Coordinator
beckymabardy@pcsga.org

PCSGA and members recently took a proactive lead on marine debris removal in Willapa Bay & Grays Harbor WA. Using SLURP funds, PCSGA paid for five dumpsters placed throughout this region from Sept. 17-18.

Dumpsters were filled by self-motivated shellfish growers and contained an assortment of very dated aquaculture gear, longline rope, and marine debris.

Additionally, these dumpsters were shared by Washington CoastSavers

for their community volunteer-based International Coastal Cleanup on September 17th.

Over the last year, PCSGA worked with WA coast members and the Willapa Bay Wildlife Refuge to better understand the extent of and how to deal with marine pollution in this region.

The partnership between PCSGA and CoastSavers, is a great example of community and industry collaboration for the greater good. PCSGA is motivated to continue implementing a coordinated approach to marine debris removal.



Please contact Becky with any questions, comments, and suggestions. Let PCSGA know how we can help you!



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Penn Cove Beach Cleanup: June 2016 at Dabob Bay and Quilcene Bay, Hood Canal WA.

Marine debris piled on the left, and aquaculture gear on the right.



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Winners at SLURP Enjoy Prize to Dig a Duck a Day!

Armed with boots and unyielding enthusiasm, four friends set out on a quest... to dig a geoduck. These determined Live Auction winners from SLURP had the once in a lifetime chance to experience a day on the beach like never before.



The crew of novices was greeted by Brian Phipps of Taylor Shellfish Farm at the Arcadia Boat Launch in Shelton WA for a ride to East Harstine Island. Filled with excitement and anticipation, the men took in the cool morning air and observed the complex geography of Puget Sound. Having reached the geoduck bed about an hour before low tide, Phipps taught the novice tidemen how to dig like commercial geoduck harvesters, pumping large volumes of seawater at low pressure to loosen the sand and release the geoducks (approximately 20 psi and 40 gallons per minute).



After each participant gathered his geoduck, the men sped to West Harstine Island to beat the rising tide in time to dig clams and pick oysters. The novices unexpectedly received a thorough lesson in seed husbandry, crop rotation, farm management, research and development, dips vs. trips, kumo, olys, pacifics and so much more!

With smiles from ear to ear, the men returned with their harvest and plans to dine like royalty! PCSGA gives a warm thank you to Brian Phipps and Taylor Shellfish Farms for donating this amazing prize package, raising \$500 in SLURP Funds for environmental and habitat restoration. Without a doubt, this will be a hot ticket item for years to come!



New Survey Sees Seafood Consumers Placing Sustainability Before Price and Brand

Source (e): <http://www.seafoodsource.com>
Madelyn Kearns, Associate Editor
July 13, 2016

Sustainability is an important factor driving seafood sales, perhaps even more so than brand and price, according to new independent research that takes stock of 21 countries overall and what consumers in each region find essential when purchasing seafood products.

A consumption survey carried out by insights company GlobalScan on behalf of the Marine Stewardship Council (MSC) queried over 16,000 seafood consumers worldwide. They found that sustainability was rated more favorably than price and brand when it comes to ocean preservation. Nearly 72% of participants agreed that shoppers should only consume food from sustainable sources to ensure ocean longevity.

The findings on consumer perceptions of seafood sustainability starkly contrast what motivates consumers when it comes to other fast-moving consumer goods, where price and brand typically outrank sustainability in driving purchase decisions.

Nearly all (85%) of the households surveyed admitted to purchasing seafood on a regular basis, with 68% adamant that consumers should be prepared to switch to more sustainable seafood moving forward. The consumers most concerned with sustainability were a part of older generations, with 75% of seafood consumers aged 55 and over agreeing that seafood eaten should be sourced sustainably, while 67% of the participants in the 18 to 34 year-old age bracket agreed.

These insights demonstrate that seafood consumers are attuned to the need for sustainability and that they are prepared to change shopping habits to protect the oceans. "Citizens feel empowered to vote for sustainability with their wallets," said MSC CEO Rupert Howes.

The survey found that 68% of consumers note that there is a necessity for brands and for supermarkets to independently verify sustainable brands and their claims. Some 62% of those surveyed said that by purchasing eco-labeled seafood, they felt they were helping to ensure ample fish for future generations. Another 62% agreed that eco-labels on seafood products raised their trust and confidence in the brand.



Sustainably produced Sound Fresh Clams and Oysters, based in Shelton WA, selling their fresh local seafood at Olympia's Farmers Market.

"This survey gives us a detailed insight into just how different the seafood category is compared to others," GlobeScan Director Caroline Holme said. "Ocean sustainability is proven to be a topic with real relevance in this category and consumers prioritize it more than we suspected in their seafood purchase decisions."

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Drake's Bay and Point Reyes Estero 'Restoration'

Source (e): <http://www.marini.com>
 Phyllis Faber and Sarah Rolph
 August 29, 2016

An on-site notice at Drakes Estero tells that a temporary closure is necessary for public safety as multiple pieces of heavy equipment will be in operation throughout the area for large scale debris removal.

This major construction effort is being conducted by the Park Service at Point Reyes National Seashore to pull the oyster racks from Drakes Estero. Press reports mention a permit from the California Coastal Commission and consultation with the National Marine Fisheries Service, but no scientific documents have been made public, and the National Environmental Policy Act (NEPA) process has not been followed.

NEPA is meant to apply to all government agency actions that affect the environment; however, NEPA has not been invoked, no Environmental Assessment of the impacts of this activity has been conducted, and the public is not invited to comment.

When the park was considering whether to shut down the Drakes Bay Oyster Co., it spent roughly \$2 million on an elaborate Environmental Impact Statement process that went on for years and included extensive public comment



Photo credit U.S. National Parks Service.

Drakes Estero is an expansive estuary in the Point Reyes National Seashore of Marin County on the Pacific coast of northern California.

— to study the continuation of a benign, century-old farming activity.

When the owners of Drakes Bay Oyster Co. wanted to repair some of the oyster racks, the state Coastal Commission would not provide a permit. Now the Park Service is removing the historic oyster racks and dredging the estero in a multi-million-dollar construction effort to rip out seven acres of wooden oyster racks that reach at least 5 feet down into the estero bottom, without formal assessment of the environmental impacts.

While calling the effort a "restoration" to benefit new "wilderness," Point Reyes National Seashore officials told the press they are considering turning the shore of Drakes Estero into a campground.

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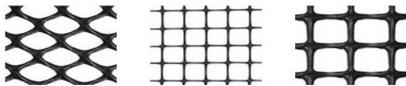


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Katie Houle, Research Biologist
Pacific Shellfish Institute (PSI)

PSI has conducted education and outreach in South Sound schools for more than 10 years. Our K-12 science programs have been evaluated by the Pacific Education Institute and support Next Generation Science Standards. By participating in hands-on classroom activities and experiential field trips, students make connections between upland land use and downstream water quality. PSI uses shellfish as a way to teach students about pollution prevention, inspiring students and their families to practice healthy watershed habits. PSI offers four 1-hour programs that address local water quality issues including eutrophication, bacterial contamination, microplastics/marine debris, and ocean acidification:

- Shellfish at Work! A Nutrient Bioextraction Project in Budd Inlet (4th – 12th grade)
- Fecal Bacterial Pollution – Doing Something About It! (3rd – 8th grade)
- Puget Sound Beachsweepers – Keeping Debris Out of the Sea (4th – 10th grade)
- Ocean Acidification Unit: Acids, Bases, and Shell Building Races (5th – 8th grade)



Students from New Market Skills Center record biodiversity among the mussel lines used in our nutrient bioextraction research and education program in Budd Inlet.

The PCSGA Grower Enrichment and Development Fund

This 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 DC Walk the Hill.

Congratulations to this year's recipients:

Alice Helker of Set and Drift Shellfish LLC

Margo and Frank Reveil of Jakolof Bay Oyster Co

Marty and Debi Beagle of FryeCove Farms

Kristen and Jake Johnson of Marrowstone Island Shellfish LLC

If you are interested in applying or to make a donation, please call PCSGA at (360) 754-2744 or e-mail pcsga@pcsga.org



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New developments from NANOOS, the IOOS Regional Ocean Observing System in the Northwest

Amy Glaub Sprenger
NANOOS Education and Outreach

The Northwest Association of Networked Ocean Observing Systems (NANOOS) has worked with the shellfish grower community for years to provide data relevant to growing shellfish in a dynamic and changing coastal ocean. From new information sources to visualizations, NANOOS and its partners continue to deliver a comprehensive online clearinghouse for estuarine and oceanic data in the Pacific Northwest, as part of the U.S. Integrated Ocean Observing System (IOOS).

New Data Streams

NANOOS' data portal, the NANOOS Visualization System (NVS) offers access to many real-time water quality data streams from the Pacific Northwest via our Shellfish Growers app: <http://nvs.nanoos.org/ShellfishGrowers>.

This year we have added new data streams from Quadra Island BC (Hakai Institute); Bellingham Bay (Northwest Indian College and Univ. of WA); Quilcene, WA (Penn Cove Shellfish); as well as data from the WA Department of Health's seasonal network of temperature and salinity sensors throughout Puget Sound.



The NEMO Subsurface mooring deployed May 2016 off coast of La Push, WA. The ESP is housed within the orange float.

A new Environmental Sample Processor (ESP), an underwater, robotic biosensor that monitors for

harmful algae and their toxins, has been deployed on a mooring 13 miles off the coast of La Push, WA. This ESP will be monitoring for species of *Pseudo-nitzschia*, *Alexandrium*, *Heterosigma* and domoic acid levels.

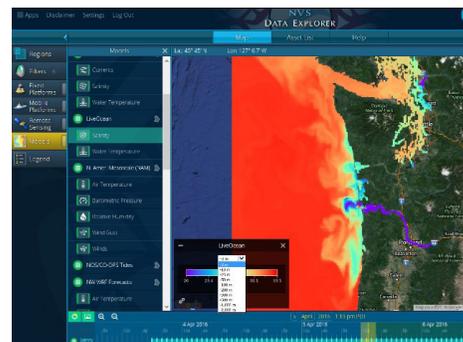
Data and information about the ESP can be viewed at: http://www.nanoos.org/products/real-time_habs/home.php. The funding for this project comes from a 3-year NOAA IOOS Ocean Technology Transition project and is made possible through the work of many partners detailed at the website.

Through our NOAA-funded work to develop a new pCO₂ sensor, we developed the IOOS Pacific Region Ocean Acidification (IPACOA) portal, www.ipacoa.org, which extends the spatial coverage of the datastreams to the entire Pacific coast, with data from hatcheries and buoys in Alaska, British Columbia, and California as well as the PNW. Access to offshore NOAA Ocean Acidification Program buoy data allows visualization of gradients or variation between nearshore hatcheries and the offshore coastal ocean.

New Model Overlay

A new model overlay available via NVS, **LiveOcean**, comes from the University of Washington Coastal Modeling Group. LiveOcean is a computer model simulating ocean water properties in the NE Pacific and Salish Sea. The circulation model is currently providing 3-day forecasts of temperature & salinity at multiple depths via NVS.

The project goal is to provide 3-7 day forecasts of aragonite saturation state and pH of waters entering shellfish growing areas on the coast. The project is funded by Washington State through the Washington Ocean Acidification Center (WOAC).



NVS Data Explorer LiveOcean Model Overlay displaying a LiveOcean model overlay showing salinity @ 3m, with depth selection up to 2000 m.

The model system is built using an existing NANOOS-supported 3D circulation-biogeochemistry hindcast models, and now incorporating carbon chemistry.

New Data Visualization

The NVS Climatology App (<http://nvs.nanoos.org/Climatology>) compares present observations with the average of data from previous years, so that one can easily view if current conditions are typical or not. We feature data from satellites and buoys and weather stations, in both cases with presentation of the long-term average conditions (climatology) and the departure from those conditions (anomaly), enabling users to compare current conditions against conditions measured in the past.

At NANOOS, we are constantly striving to improve data access, discovery, and usability to meet the needs of shellfish growers in the Pacific Northwest. We want to hear from you.

Contact NANOOS at http://www.nanoos.org/contact_us/contact_us.php; For the NANOOS newsletter: <http://www.nanoos.org/news/index.php>. If you are interested in becoming a NANOOS member visit: http://www.nanoos.org/join_nanoos/join_nanoos.php

PCSGA Appreciation Day at the Horse Races!

Each year, PCSGA thanks our Allied Members and our committed volunteers for their support! This summer, PCSGA spiced things up at Emerald Downs Horse Race Track! On August 6th, the 25 guests were off to the races enjoying 10 edge-of-their seat races, delicious appetizers, mint juleps, a chance to win some big bucks—and all the bragging rights! Between races, attendees greeted horses and jockeys, socialized with fellow shellfish growers, and smiled for a photo opportunity. A very heartfelt thank you from PCSGA to all of our wonderful extended family for their support and participation. We hope you join us again next year!

Photo from left to right: Karen Epps, Derek Epps (Seattle Shellfish), Becky Bosse, Charles Bosse (Taylor Shellfish), Stuart Thomas (Taylor Shellfish), and Rob Snyder (Rob's Shellfish).

Rob Snyder of Rob's Shellfish in Shelton WA was the day's big winner earning \$150 ... One horse, one race!



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PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

Hurricane Hermine Recovery Plan for the Cedar Key Shellfish Aquaculture Industry

Source (e): National Aquaculture Association, Industry Update

HOW YOU CAN HELP:

The Cedar Key Aquaculture Association has opened a dedicated Hermine Recovery account to clean-up farm gear and other marine debris, recover or replace Private Aids to Navigation associated with shellfish lease areas, rebuild infrastructure (shellfish hatcheries, land-based nurseries, aquaculture designated docks and shellfish processing plants), and purchase shellfish seed. Donations are tax-deductible and can be mailed to the Cedar Key Aquaculture Association, PO Box 315, Cedar Key FL 32625, include "Hermine Recovery" in the memo line.

PCSGA wishes the Cedar Key community the best in the weeks and years ahead as they rebuild.

Bob Rheault, Executive Director of the East Coast Shellfish Growers Association, shares his forward-thinking perspective:

"As our industry grows, we will invariably see more storms reeking havoc on marine farms. We need to work with federal agencies to develop a disaster recovery response that is turn-key and responsive to local needs. Farm Service Agency crop insurance coverage is hardly enough to buy new seed, much less recover the gear and infrastructure that we depend on. We shouldn't have to reinvent this process with each new storm. This is a good role for the associations."

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Located on a small island in the Gulf of Mexico, Cedar Key is a working waterfront community with fewer than 800 residents. For most of the 20th century, Cedar Key remained an isolated fishing village. However, during the 1990s, increasing regulations affected the livelihoods of its fishing families.

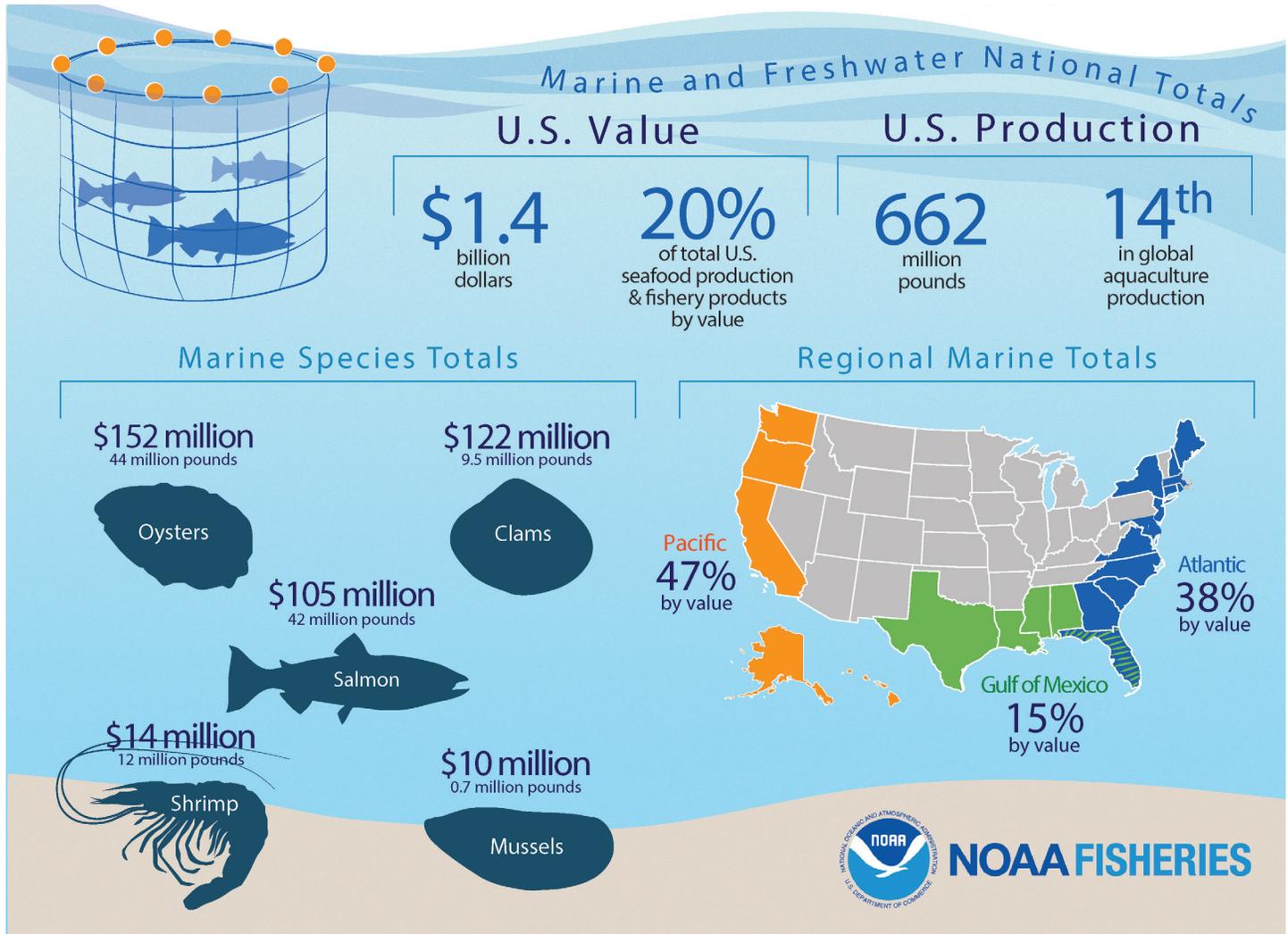
A transition to shellfish aquaculture as an alternative employment opportunity occurred in the same decade. Today, clam and oyster farming adds an estimated \$45 million a year into the area's economy and supports over 500 jobs. Shellfish farming has enabled Cedar Key to continue with an industry connected to the sea.

Hurricane Hermine, the first hurricane to hit Florida since 2005, made landfall on September 2nd in the Big Bend region. Wind speed of approximately 66 mph pushed up a 7-9 foot storm surge that inundated portions of Cedar Key. Catastrophic hard clam crop losses are being reported by shellfish growers with lost and buried hard clams and lost or damaged floating oyster production gear.

The community has made significant progress to cleanup and remove debris from the upland portions of the island and remove and dispose inoperable coolers and freezers and business and residential structural damage. A record turnout of volunteers responded during their annual Coastal Cleanup; however, the needs are more than available resources.

2013 NOAA Aquaculture Production Highlights

Just released numbers show marine aquaculture production in the U.S. has been steadily increasing in recent years, about 5 percent a year from 2008 to 2013. U.S. marine aquaculture production has an estimated value of \$403 million. The average American ate 14.6 pounds of fish and shellfish in 2014, essentially unchanged from 2013. Figures for 2014 are not yet available. The 2014 Fisheries of the US report is available at <http://st.nmfs.noaa.gov/commercial-fisheries/fus/fus14/index>.



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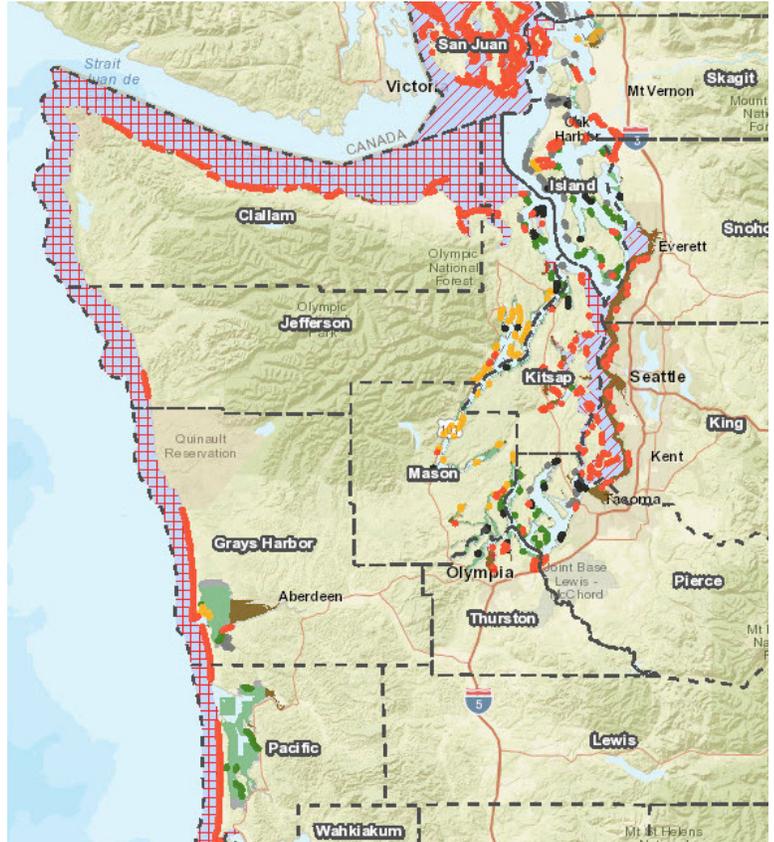
Enhanced Online Interactive Map For Recreational Shellfish Harvesters



Dave Johnson
 Washington Department of Health
 Strategic Communications Office: 360-545-2944

The Washington Departments of Health and Fish and Wildlife recently partnered to make recreational shellfish harvest seasons available on the Department of Health's online Shellfish Safety Map. In addition to up-to-date public health information, visitors to the website can now see harvest seasons for Washington's public beaches. Prior to these changes, harvesters had to check with both agencies to make sure a beach was open or drive to the public beach and look for signage.

"The enhancement to the online map is in response to the public's feedback for an easier way to find out if a beach is open or closed," said Scott Berbells, manager, Shellfish Growing Area Section. "We believe people will find it easier to determine if it's safe and legal to harvest before making the trip to their favorite beach."



Website Link: <https://fortress.wa.gov/doh/eh/maps/biotoxin/biotoxin.html>



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The Sweet-n-Spicy Relish

From Giuseppe Tentori—the “GT” of Chicago’s GT Fish & Oyster—a fresh, spicy relish to take your oysters to the next level.

Makes enough for two dozen oysters and can be prepared up to four hours before serving.

- 2 cups seedless watermelon, finely diced
- 1 whole jalapeño, finely chopped, no seeds
- 1 tablespoon cilantro, finely chopped
- 1/2 teaspoon sea salt
- Zest and juice of 1 lime – 10g juice

Stir chopped jalapeño into finely diced watermelon (make sure you keep the watermelon chilled). Mix in chopped cilantro and season with sea salt, lime juice and zest. Reserve on ice, or cover it and put it in the fridge until you're ready to serve it.



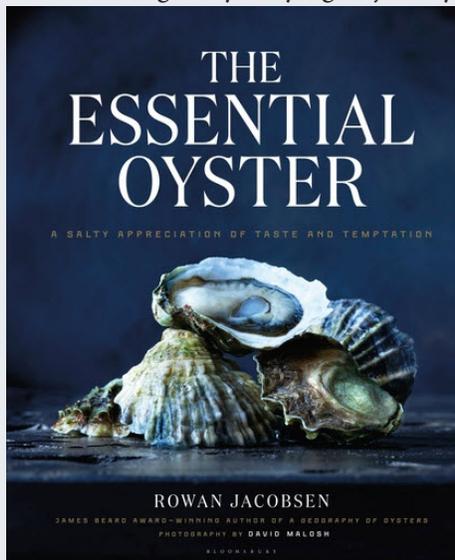
The Essential Oyster -- A Salty Appreciation of Taste and Temptation

Source (e): <http://www.bloomsbury.com>
Book Release Date: October 4, 2016

A decade ago, Rowan Jacobsen wrote a book called *A Geography of Oysters* that celebrated the romance of oysters, the primal rush of slurping a raw inhabitant of the sea, and the mysteries of molluscan terroir. The book struck a chord, and American oyster culture has been on a gravity-defying trajectory ever since.

With lavish photos throughout by renowned photographer David Malosh, *The Essential Oyster* is the definitive book for oyster-lovers everywhere, featuring stunning portraits, tasting notes, and backstories of all the top oysters, as well as recipes from America's top oyster chefs and a guide to the best oyster bars.

Spotlighting more than a hundred of North America's greatest oysters--the unique, the historically significant, the flat-out yummiest--*The Essential Oyster* introduces the oyster culture and history of every region of North America, as well as overseas. There is no coastline from British Columbia to Baja, from New Iberia to New Brunswick, that isn't producing great oysters. For the most part, these are deeper cupped, stronger shelled, finer flavored, and more stylish than their predecessors. Some have colorful stories to tell. Some have quirks. All have character. The Essential Oyster will help you find the best, and help you to cherish them better. That is what's captured--and celebrated--in these pages.



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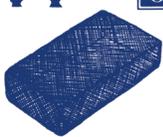


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2016

October

30-1: Bellingham SeaFeast, Bellingham WA

1-2: OysterFest, Shelton WA

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

9: "Ebb and Flow" Film Premier, Seattle WA

10: PCSGA Board Meeting week of Conference

11-14: 70th Annual PCSGA Shellfish Growers

Conference and Tradeshow, Chelan WA

November

5: 24th Elliotts Annual Oyster New Year, Seattle WA

8: PCSGA Board Meeting via Conference Call

15: Ecosystem Services Photo Contest Submission Due

30-2: Conference for Women in Sustainable Agriculture,

Portland OR

December

Happy Holidays

6: PCSGA Board Meeting via Conference Call

15: Ecosystem Services Photo Contest Submission Due

2017

January

PCSGA Live Board Meeting (TBD)

11-13: Northeast Aquaculture Conference & Exposition,

Providence RI

15: Ecosystem Services Photo Contest Submission Due

17-19: National Fisheries Institute, Global Seafood Market

Conference, San Francisco CA

February

PCSGA Board Meeting via Conference Call (TBD)

15: Ecosystem Services Photo Contest Submission Due

23-26: Newport Seafood and Wine Festival, Newport OR

27-28: Sea Grant Shellfish Growers Conference, Union WA

March

PCSGA Board Meeting via Conference Call (TBD)

4-5: Penn Cove MusselFest, Coupeville WA

19-21: Seafood Expo North America, Boston MA

15: Ecosystem Services Photo Contest Submission Due

26-30: National Shellfish Assoc. Meeting, Knoxville TN