



LONGLINES

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Summer 2021



Life's a beach

PCSGA



PACIFIC COAST SHELLFISH GROWERS ASSOCIATION

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

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

What the Tide Brought In

Notes from the Director

Summer brings day-time low tides, warm temperatures, and customers who equate shellfish with family get-togethers and outdoor dining. I am thrilled to be part of it all.

August, 2021 marks the completion of my eleventh year here at PCSGA. It's truly incredible to believe that so much time has passed. There have been quite a few difficult weeks during this tenure but also some fabulous awe-inspiring actions. When I started this job I was the frantic mom of active, early-rising 8- and 10-year olds. Today, I marvel at two young adults who call me "shorty" and occasionally request a mom-made breakfast at noon.



An early meeting with Colonel Sanders helped prepare Margaret (bottom right) for future meetings with a long line of Army Corp Colonels.

During those early years, I was wrangling a rather diffuse board as we consistently fought to gain USDA's attention and support of shellfish genetics research. We were just starting to understand ocean acidification and working to differentiate it from other natural threats to shellfish. Ironically, back then, I was comforted in knowing that the Corps had implemented a failsafe permitting structure of the Nationwide Permit 48.

Fast forward to today, the PCSGA Board of Directors work under a strategic plan and other essential guiding documents. This month, I will be interviewing candidates to fill a second dedicated position as part of a \$2 million shellfish genetics program at Hatfield Marine Science Center. Ocean acidification seems to be a commonly recognized term, and growers have access to dependable tools to guide farming actions. And permitting?? Well, we can't win them all. Eleven years later, I am meeting weekly with Colonel Bullock of the Seattle Army Corps, and unfortunately, we haven't quite lived up to the bright optimistic view held in 2010.

There is a collective strength and sense of resiliency that is common among PCSGA members. If you're not yet a member, please consider letting us advocate on your behalf. If you are new to receiving this publication, it is our hope that you find it useful. We also hope it demonstrates the many successes that have occurred despite the challenges associated with permitting, with the pandemic and the unexpected quirks of growing shellfish in an ever-changing environment.

As always, I'd love to hear from you. Please don't hesitate to call me.

Be well

Margaret A. Pilaro

Cover Photo: Fiona Boardman, UW. Goose Point Oysters, Bay Center, WA.

Pearls from the Prez

Hello fellow shellfish enthusiasts. I hope this edition of Longlines is finding you happy, healthy, and safe. These last 18 months have been a doozy for us all. I am personally writing this on the tail end of the major heatwave that swept across western Washington, leaving us and our oysters baked and ready for our traditional northwest summer.

As we make our way through July, another trip around the sun comes full circle for me. It offers me a time to go back to what was great and beautiful and where I fell short. I do my best to not dwell on the shortcomings, although for me this year it was personal relationships. I instead find the joy, the wins, the people, places and things that nourished me.

It may come as a surprise, my joy and fulfillment in serving as a PCSGA board member is one of those items written down in my reflection. The ability to serve an industry that has served me, my family and loved ones is an incredibly rewarding gift and provides that feeling of community.

We are blessed to have both members who have served on the board for decades, and those who have recently chosen to serve our community. Every two years, PCSGA elects a new board. Some board members will serve another term and others will be new to the board. The transition includes welcoming different perspectives, learning about new opportunities, and strengthening relationships. This formula has served us well since the inception of PCSGA, ensuring we are a well rounded and dynamic group of representatives of our industry.

This summer we will once again have an opportunity to reestablish that board make up. PCSGA members will elect and, in many cases, reelect those who will be making decisions for the organization, effect change, and continue to move PCSGA in a direction that is good for us all. When I look back at the things PCSGA has accomplished in my 8 years with the board, I am so proud of us!

Our board is comprised of members from all the west coast states, representing large, medium and small farms, and growers of oysters, clams, geoduck and mussels. Are you in a position to participate? If you are, please do not hesitate to self-nominate. Be proud, be bold, we would love to have you.

This summer, I urge you all to take a moment to reflect on your pits and peaks and also your intentions. I personally will be getting back to those unnurtured relationships that I miss and crave. Is there really anything better than being with that person while drinking a glass of champagne and laughing until you cry?!

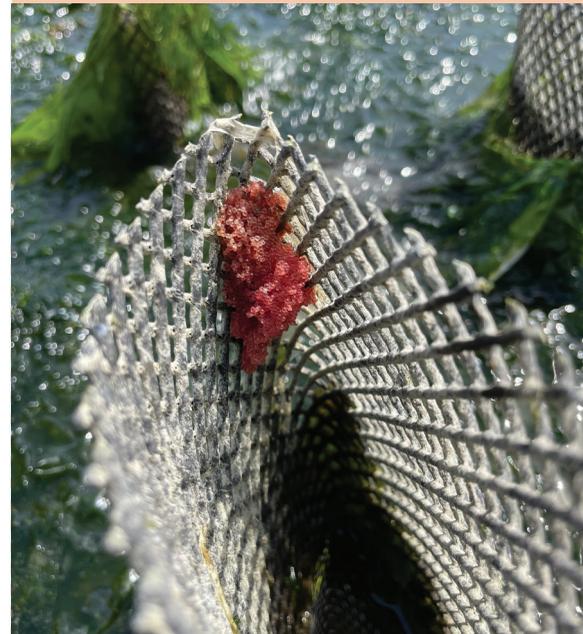


Miranda Ries
Pacific Seafood, Pacific Shellfish

MONTHLY ECOSYSTEM SERVICES PHOTO CONTEST WINNERS!



April: Rebecca Richards, San Diego, CA. FLUPSY at Tuna Harbor providing safe harbor to Palmaria and attached Olympia so both can tend to their water quality cleanup jobs.



May: Nyle Taylor, Hartstine Island, WA. This photo depicts sculpin eggs layed on a mesh tube. The eggs represent another example of multiple species that take advantage of temporary placement of tubes to increase their rate of survival.

SNAP A PHOTO, WIN \$100!

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

Contest rules at www.pcsga.org

PCSGA Facilitates Grower Grants with Washington State Department of Agriculture

A welcome light of hope at a needed time...

by: PCSGA Staff

The Washington State Department of Agriculture (WSDA) Relief and Recovery grants, funded through a partnership with the Washington State Department of Commerce, delivered \$1.6 million directly to shellfish growers this spring. The grants were intended to assist shellfish growers and three other small business sectors – craft brewers, agriculture tourism and farmers’ markets – hit hard by the pandemic.

The initial contact came out of the blue on March 5 when WSDA emailed PCSGA asking for input on how badly growers were impacted. Once the agency decided to include shellfish growers, they began working with PCSGA to develop an application process that wouldn’t be burdensome. PCSGA reached well beyond our membership to ensure all eligible shellfish growers in Washington knew about the opportunity and were encouraged to apply. For our efforts, PCSGA also received funding to help us maintain critical business operations.

“These grants will boost the Washington state agricultural industry, helping prevent business closures and supporting the health and diversity of Washington State’s overall economy,” WSDA Director Derek Sandison said. “Our economy needs the businesses in these four sectors to

recover from the pandemic for the health of our economy as a whole.”

On July 1, shellfish growers met with Director Sandison to offer our collective thanks. We presented Director Sandison and grant administrator Laura Raymond with a token of our appreciation. Growers were able to share how the funding supported their businesses. Some of what we heard that day included:

- “The funds were a life changer.”
- “Totally AMAZING!”
- “Receiving the funds validated that my family is doing the right thing by farming shellfish.”
- “The grant funds will assuredly be reinvested into our communities.”
- “We will be able to continue providing the world class shellfish products that the great state of Washington is known for!”

The funds arrived when growers needed them the most. Growers were getting by, but as one grower stated, receiving the money was “a welcome light of hope at a needed time”.

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ISSC ON YOUR RADAR: Shellfish Health and Safety

“Right now, industry involvement is needed on critical issues.”

by: Diani Taylor, Taylor Shellfish Farms

Shellfish growers have a unique opportunity to shape and inform shellfish health and safety regulations and we need your voices at the table. While we often work most directly with our respective state shellfish programs, the Interstate Shellfish Sanitation Conference (ISSC) sets national standards that apply to our businesses countrywide. Industry participation is built into the foundation and structure of the ISSC, providing a singular opportunity to be a part of how standards are crafted, considered, and implemented. Industry inclusion in the regulatory process like this is atypical and the majority of industries are simply handed mostly complete rules and regulations by federal agencies.

Involvement in the ISSC is invaluable. An appropriate national shellfish sanitation program is needed to ensure public confidence in the safety of our products and to build and maintain reliable year-round markets for all of us. At times, we are also better positioned to spot and raise emerging public health issues as industry trends shift.

Changes in the national standards can also majorly impact our businesses. State and federal agencies do not possess our knowledge of industry practices and appropriate alternatives. Without input from farmers, harvesters, processors, and others, striking the right balance between

protecting public health and fostering the industry is challenging, at best.

Right now, industry involvement is needed on critical issues. ISSC committees are actively discussing bird and mammal interactions with floating gear, vibrio and illness data, and traceability. A new Executive Director, Keith Skiles, has taken the helm at the ISSC and there have been many transitions in agency staff. With a new set of participants, we need to build new relationships and educate our latest state and federal partners about the shellfish industry.

We also need more voices at the table. To represent the diverse businesses in the shellfish industry, we need many perspectives. More industry member engagement is essential to ensure continuity, especially as key participants in the ISSC plan to transition out in the future. A core group of dedicated West Coast industry members are ready to welcome and help onboard others.

Big changes and opportunities are happening now. You can make a difference, no past experience required. Take the next step and contact Diani Taylor, your ISSC West Coast Industry Representative (dianit@taylorshellfish.com) or Margaret Pilaro (margaretpilaro@pcsga.org).



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Farmers' Corner



Written for you, by you - share all the news from your farm.

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Farmer to Farmer: A Field Trip

by: Andy Suhrbier, Pacific Shellfish Institute

Grateful to be able to check out Alaska style oyster farming again, this time at Blue Starr! Blue Starr is a 30-minute flight, 1 hour drive and 1 hour skiff ride away from Ketchikan. Eric and Cindy Wyatt have all you need there, including a state of the art FLUPSY where Eric produces seed for the AK industry. Eric and his family also operate an oyster farm where they grow them in multiple ways: tray stacks off of floating rafts, floating bags and beach hardening areas. I had a great time checking out the specific gear for each operation and hear about what and what doesn't work in AK and specific challenges in the region. I also brought up a water quality meter to conduct profiles of the water column looking for halo and thermoclines at 5 farm sites.



Eric Wyatt, Blue Starr Oyster Co.

While there, I snuck in some sea cucumber research, looking for them in, around and below the farm with a drop camera. This and other floating shellfish gear are great sea cucumber nurseries! The only place we saw adult sea cucumbers was under the oyster processing building, most of the sea cucumbers in the area have been eaten by sea otters. This is where Eric and his summer employee Grace collected a few hundred sea cucumbers from the oyster trays before I got there. I was able to deploy these sea cucumbers in different scenarios around the farm and FLUPSY to see how they survive and grow over the summer. Eric of course does his own research where he puts sea cucumbers back in trays for them to grow up to 6-8 inches!

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Cluster Buster Makes Debut

by: PCSGA Staff

The off-bottom method of growing oysters in the Willapa Bay and Grays Harbor communities in Washington utilizes a yellow polyethylene rope strung between stakes, visible at low tide. The rope holds the host oyster shell that has been set with seed. Over time, the seed oysters will grow around the rope into large clusters of oysters. At harvest time, the lines between the clusters are cut so farmers can break apart the large clusters into individual oysters. Remnants of the yellow rope are often entwined within the clusters, becoming problematic for farmers to reuse the shell for future seeding.

Pacific Seafood has developed an innovative new tool, the Cluster Buster, to help solve this problem. This monster of a machine busts up clusters of shell that have grown around the yellow rope to facilitate separation of the two. The innovators invested, designed, built, tested, modified, and finally deployed this finely tuned machine. The key feature is to have the right amount of torque to bust the shell clusters apart to separate out the ropes, while not compromising the shell and its ability to be reused for future crops.



Photo Credit: Pacific Seafoods

The first prototype of the Cluster Buster was such a success that a similar portable machine is in the works. Once completed, the newly built mobile Cluster Buster will be available to Willapa Bay and Grays Harbor growers to clean up existing shell piles containing rope fragments. To make this a reality, Pacific County Conservation District awarded Pacific Seafood an \$85,000 grant to complete the mobile unit. Funding became available July 1, 2021. Estimated time for completion and deployment is this fall.



Interested in Joining the 2021-23 PCSGA Board of Directors ?

Board Members discuss issues impacting the industry, set priorities, direct Association activities and are often called upon first to engage with agencies and elected officials. The board meets for two hours, monthly – most of which are held virtually.

We need representatives from all of the Pacific Coast states; small, mid-sized and large companies; and all of the species grown by our members. To learn more, to nominate someone, or to nominate yourself, please contact Margaret at 360-790-8264 before August 6th. Members should watch for election details in mid to late August.



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We recognize **education** is essential in achieving our long-term goals. We support programs that teach the value and benefits of our industry.

We organize an annual **conference and tradeshow**. You'll learn about current and emerging issues facing our industry - all at a discounted member rate.

We urge you to **get involved**. Volunteer at local festivals, join a committee, participate in our annual lobbying trip to DC and your state, or represent your region on our Board of Directors.

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Comprehensive Global Study Confirms Restorative Aquaculture has Positive Impacts on Marine Life

University of New England, June 25, 2021

The University of New England partnered with The Nature Conservancy (TNC), the world's leading conservation organization, on a ground-breaking new study that provides strong evidence that shellfish and seaweed farming are a critical component of regenerative food production.

The comprehensive study has been published in *Reviews in Aquaculture* at a time when much news of food production focuses on its negative impacts on the environment. Quite to the contrary, the study, titled "Habitat value of bivalve shellfish and seaweed aquaculture for fish and invertebrates: Pathways, synthesis, and next steps," paints a bright picture of aquaculture's potential to help satisfy food demand in harmony with ocean health.

Restorative shellfish and seaweed farming offers a sustainable method to meet the nutritional needs of the growing human population, while maintaining and improving the health of the waters, lands, and animals we live alongside. This study is among the first to demonstrate the global potential for regenerative outcomes in aquaculture systems.

"Aquaculture is among the world's fastest-growing forms of food production and there is a growing biodiversity crisis that already exists in our ocean. It's critical that we identify ways to develop aquaculture that benefits, rather than harms our ocean, that are based on sound science," said Robert Jones, Global Lead for Aquaculture at The Nature Conservancy. "This study is game changing in that it clearly shows an opportunity through shellfish and seaweed aquaculture. For the first time, we're able to put quantifiable global numbers on the benefits these farms can have on marine wildlife."

The study, a collaboration between partners at University of Melbourne, University of Adelaide, and the University of New England, systematically reviewed 65 published sources around the world to assess the biodiversity benefits of mussel, oyster, clam, and seaweed farms. In each case, a greater number of fish and invertebrates were observed on the farm sites compared to nearby locations. Mussel farms appear to be the most beneficial of these species groups for enhancing the volume of marine life, as about 3.6 times more fish and invertebrates appear around mussel farms compared to nearby locations.

In addition, a greater diversity of species was also observed on some farm sites. Oyster farms proved to be the most effective for increasing species diversity; 30 percent more species were found to inhabit these farms than areas near the farm. These benefits were the result of providing a structured habitat, food and places to forage, and reproductive grounds for fish.

"Food production has had a significant negative impact on the natural world, including 80 percent of habitat loss, and aquaculture alone accounts for up to 30% of mangrove loss in some parts of Asia, which are vital nursery grounds for fish and marine life," said Heidi Alleway, Ph.D., Global Aquaculture Scientist at The Nature Conservancy. "As a result, conservation efforts have been increasingly focused on how to curb the detrimental effects of food production practices. The benefits identified in this study open an exciting conversation about how we might be able to better design – to best design – a food system that not only addresses the environmental impacts, but perhaps even supports the repair and recovery of degraded ecosystems or areas."

Save the Date!

75th Annual Shellfish Conference & Tradeshow

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“For decades we have thought these benefits may be real. It is fantastic to see these results quantify this positive habitat value from aquaculture,” said Barry Costa-Pierce, Ph.D., Henry L. & Grace Doherty professor of Ocean Food Systems at UNE.

The authors hope that policymakers at local, regional, and global levels will recognize the potential positive outcomes provided by aquaculture and begin to incorporate them into regulatory systems that encourage development of a habitat-positive industry, and that potentially create public incentives and market-based approaches that allow farmers to be rewarded or compensated for the benefits they are providing.

“When managed and practiced well, commercial, market-driven shellfish and seaweed farming can provide ecosystem services,” said Seth Theuerkauf, Ph.D., the study’s lead author and former Global Aquaculture Scientist at The Nature Conservancy. “This means that we have another tool in the coastal ecosystem recovery toolbelt that can be deployed by the private sector to produce food while providing the ecosystem services that we so desperately need in many systems.”

More broadly, the authors hope that the example of shellfish and seaweed farming systems can provide an important case study that inspires application and development of aquaculture and agriculture that is nature-positive while also helping to provide food security.

.....

Oyster Tracker is Now BlueTrace

Allied Member Rebrands Product

Oyster Tracker has grown from an oyster farm management product to a company – now rebranded as BlueTrace – which offers a range of management, compliance and traceability solutions. BlueTrace has expanded well beyond oysters, while doing business in four different countries. Chip Terry, co-founder of BlueTrace, assures us however that oysters will always be their home.

Reasons for the BlueTrace name change:

- Traceability regulations are increasingly important to the industry - Being able to produce a digital traceability chain that tracks all Key Data Elements from harvest to table is critically important in all regulatory schemes.
- The workforce is mobile and expects mobile tools - Working from a boat or truck with a phone, a rugged printer, and a mobile, cloud-based solution gives companies the flexibility to meet today’s needs.
- Consumers expect more information - Customers increasingly want to know where their food has come from and that it was farmed sustainably.

For more information, check out their website www.blue-trace.com or email Chip Terry at chip@blue-trace.com



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Alaska Establishes a New Mariculture Alliance

by: Connie Smith, PCSGA

The newly formed Alaska Mariculture Alliance (AMA) is a private non-profit organization that was initiated in June 2021. Its mission is to develop and support a robust and sustainable mariculture industry, producing shellfish and aquatic plants for the long-term benefit of Alaska's economy, environment and communities. The AMA is the successor organization to the recently-sunsetted Alaska Mariculture Task Force and will help shape and coordinate the burgeoning mariculture industry in Alaska. AMA membership is available to all individuals, companies and entities working in the field of mariculture and/or interested in the development of the mariculture industry in Alaska.

PCSGA became a founding member of AMA in June of this year. Please join us as they continue to develop and support mariculture in Alaska. For questions, contact Julie Decker at 907-276-7315 or jdecker@afdf.org



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PCSGA Research Committee Defines Annual Priorities

by: Connie Smith, PCSGA

The role of researchers is to secure grant funding for projects that benefit the shellfish industry. Over a calendar year, there are a generous number of Requests for Proposals (RFP's) from public grant-making agencies. An important role of the PCSGA is to identify and circulate research needs to grant makers, researchers in the region and membership through ongoing communications.

Every year the PCSGA Research Committee reviews current research priorities facing the industry and recommends to the Board of Directors which goals they consider are the highest priorities. As times change and new issues emerge or are resolved, this list changes as it reflects the most critical issues that basic and applied research can help resolve. Research priorities will always need to be refined to fit grant opportunities as they arise. Once identified, the list helps direct the research community to search for funding opportunities that best match up with industry needs.

In addition, PCSGA frequently receives requests for written support for other organization's research projects. Identifying the most critical issues facing our membership helps the PCSGA leadership determine which projects align the best with our identified research interests, and thus which projects we can offer a formal Letter of Support.

PCSGA's 2021 Research Priorities

- Ecosystem Services Provided by Shellfish Farms
- Investigate Durability of Shellfish Gear
- Quantify Effects of Macroalgae Removal from Shellfish Ground
- Shellfish Breeding for Increased Production and Sustainability
- Quantifying Ecological Equivalency Between Shellfish Farms and Eelgrass Beds including Ecosystem Services Provided by Shellfish Farms
- Automation/Robotics Applications to Shellfish Farming in Sub-optimal Environments
- Research on Public Health and the Shellfish Industry
- Achieving Increased Resiliency in the Shellfish Industry

For more details, see our webpage at <https://pcsga.org/research-priorities>

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Corps Nation Wide Permit Update

by: Vicki Wilson, Arcadia Point Seafood

The industry's world in Washington State tilted on its axis on June 11, 2020, the day Judge Lasnik issued his final remedy decision regarding the 2017 version of NWP 48. Judge Lasnik partially vacated the permit, and the long slog toward getting individual permits began. Growers had difficult decisions to make about how best to apply for individual permits and how subsequent versions of NWP 48 might apply to their projects. They also had deadlines to meet regarding planting new crops and continuing to maintain and harvest current crops.

The 10,000-foot view is that the Corps had/has hundreds of permit applications needing to be processed, along with, in many cases, related Ecology approvals (water quality and coastal zone management). Ecology has been a rock star in moving through their process, the Corps has been a bit more challenged. At the time when this issue of Longlines was being printed, the Corps has issued approximately 100 permits.

PCSGA has some suggestions for growers as you move through the Corps process. Many members have already heard these suggestions through participation in member virtual meetings and member update emails. Nonetheless, it bears repeating and sharing with all growers, member or not.

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* If you have not recently heard from your Corps Project Manager (PM), CALL him/her. Be proactive. Many PMs are balancing multiple applications so be sure to make yourself known and available. If you have not heard from a PM, contact Melinda Larsen at Melinda.M.Larsen@usace.army.mil or 503-808-3888 (office), 503-726-6194 (mobile), to get your PMs name.

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* Let your PM know your planting needs. Although it is late, if you have a beach you still want to plant this year let your PM know your priorities.

* If your PM contacts you for additional information, get back to him/her ASAP. PMs are working from 6 different time zones so it can be tricky. Have a goal of same day or next day response. Sometimes what is needed is more complicated than quick turnaround allows, but come as close as you can.

* Many growers have been asked by PMs, and have agreed, to obtain authorizations under the new, 2021 version of NWP 48. If you elected to do so, please recognize that you can contact your PM and ask that s/he continue work on your initially requested individual permit so that ultimately you will have an individual permit in hand.

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* Be aware that as of March 18, 2022, the 2017 version of NWP 48 expires. The message to the Corps is this: If I cannot maintain my crops, they die. If I cannot harvest my crops, I lose my market and then I lose my income and then I lose my company. Keep in frequent contact with your Corps PMs to have all new permit applications processed by March 18, 2022.

PCSGA wishes each of you the best and a long career in the shellfish industry.

Why Become a New Grower Member?

by: Alice Helker, Set and Drift Shellfish

Imagine starting an oyster farm totally from scratch, and as new farmers. Where do you start? For us, as first-generation oyster farmers being members of the Pacific Shellfish Growers Association has been a huge resource in this endeavor. With PCSGA, staying up to date on industry news is easy, we have help in navigating every unknown of oyster farming, and are a part of a supportive community.



Alice Helker showing the bounty

Getting to know other members has been a huge benefit, and I feel I could reach out to any member anywhere and be happily received. This has been helpful not only in growing our business, but also in developing fulfilling friendships. In fact, we have even had the chance to meet with other members and see how they operate when traveling to other states.

PCSGA conferences have also been a highlight. These conferences bring together growers, policy makers, scientists, and other industry folks. We always come away inspired, having learned new ideas and met new people.

PCSGA is an organization that makes itself readily available to members, and is truly only a phone call away. They have been there for us from when we were just getting our farm going, to more recently in facilitating immensely helpful resources during the pandemic. PCSGA has, quite literally, even been a shoulder to cry on when the going has been tough, which says a lot about how much this organization cares about its members – no matter the size of their business.

For what we get out of being members, annual dues are more than worthwhile. The shellfish community has been so welcoming to our new farm, and the PCSGA has been a big part of that. For this, we are grateful for the organization and encourage anyone considering joining to do so.



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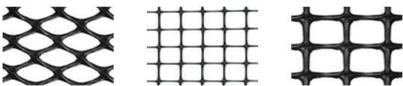
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Conservation Easement Helps Hog Island Bounce Back from Pandemic

Source: Jeff Quackenbush, The North Bay Business Journal
June 2, 2021

Hog Island Oyster Company in West Marin inked a deal that will keep 250 acres of the surrounding ranch perpetually in agriculture and infuse cash that will help the business rebuild from the pandemic.

The operation entered into an agricultural conservation easement with Marin Agricultural Land Trust. The deal, which closed May 22, protects 240 acres of Leali Ranch near the community of Marshall on Tomales Bay, 8 acres of marine farming, or mariculture, support operations and a home nearest the oyster raising and processing facility.

To get the deal closed quickly, MALT covered the closing costs and funded the \$1.1 million transaction price. That money came at a critical time for Hog Island Oyster, according to John Finger, co-founder and CEO.

“This gives us some essential breathing room, because we’re still not out of

the hole from what happened last year,” he said. “It was touch and go from a company health standpoint in the early days of the pandemic.”

In the first half of 2019, the company acquired the 7-decade Marshall cultural landmark Tony’s Seafood. And a second restaurant was a week away from opening in Larkspur, with 30 workers hired and trained, when the mid-March 2020 health orders shut down restaurants in Marin County and throughout the state.

The company had 300 employees before the coronavirus pandemic, and that fell to 25 as workers were furloughed as business dried up. With the initial reopenings last summer, the workforce went back up to 180, but then came the closing of outdoor dining late last year following a spike in cases across the state.

Now, the company employs over 200 again. Many were furloughed

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Hog Island Oyster Company partners Terry Sawyer, left, and John Finger at their Tomales Bay facility, CA (April 7, 2014. Christopher Chung/The Press Democrat)

Island Larkspur restaurant in the Marin Country Mart shopping center just reopened for takeout and delivery at the beginning of April.

Hog Island Oyster had ideas about improving the equipment and expanding the number of products from the sea and land, but all that went on hold as the company went into survival mode with the pandemic, Finger said. Though the operation secured a federal Paycheck Protection Program loan of over \$2 million, the timeline to shift from endure to innovate would have taken another year or two without an injection of capital, he said.

The influx of visitors to the oyster farm, lately thanks to a digital marketing push last summer and being featured on Netflix's "Somebody Feed Phil" show last fall, is a blessing, but it makes production more challenging, Finger said.

So now the extra funds can go toward building bigger processing barns, with more space for sorting the shellfish and more seawater holding tanks at different temperatures.

Other potential pursuits being explored are harvesting seaweed and specialty sea salt and planting row crops and a citrus orchard. These could be used to produce products such as Bloody Mary cocktail mix, pickles and lettuce for sale at local stores and markets. That's in addition to the cattle raising that the Leali family has been doing on the ranch for nearly a century.

With the Leali Ranch deal, MALT now has secured protections for 54,459 acres in its 41-year history, but this is the nonprofit's first mariculture project, according to Thane Kreiner, Ph.D., the organization's new CEO.

"Mariculture is a sentinel for climate change, because changes in pH of the ocean through acidification and other composition affects the ability of juvenile oysters to form their shells," Kreiner said. "So Terry and John and all of us have a vested interest in addressing the problems of climate change so that we have access to food that can provide a very reasonable and sustainable global source of nutrition."

Marine biologists by training, Terry Sawyer and John Finger started the oyster farm in 1983. Hog Island Oyster Company participates in research projects on ocean acidification and climate change impacts on shellfish.

Kreiner said MALT has been impressed by the oyster farm's circular approach to the food chain, with shells being ground to use in supplementing livestock feed on the ranch.

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Member Memorials

Earl Steele, Rock Point Oyster Co.

Earl grew up on the tidelands of Samish Bay, WA as a fifth-generation oysterman of one of the oldest oyster companies in Washington State, Rock Point Oyster Company. Earl was the grandson of E.N. Steele who authored *The Immigrant Oyster*, widely considered the most comprehensive historical reference of the oyster industry. Earl was involved in his family's shellfish operations throughout his life.

He began teaching at Bellingham Technical College (BTC) in November 1979, armed with his UW degree from the College of Fisheries and years of experience in commercial fishing and salmon and shellfish harvesting and cultivation. Earl had a dramatic impact in the lives of hundreds of students over the course of his tenure at BTC and contributed to the overall success and excellence of the Fisheries & Aquaculture Program at the college. BTC's Fisheries & Aquaculture program was successful in restoring the chum run to Whatcom Creek and is now the only program of its kind on the west coast. Earl worked with Washington State treaty and non-treaty fisheries and shellfish leaders to develop this educational and production program. This program was his life and passion, and he gave it his all for 37 years. He will be missed by many, but his legacy continues.

Kurt Grinnell, Jamestown S'Klallam Tribe

On April 20, 2021, the aquaculture industry lost a good friend and colleague with the unexpected passing of Kurt Grinnell. His untimely death left us all heartbroken and stunned. We grieve with and for his family, his tribal community, and especially his wife and soulmate, Terri.

If you ever heard Kurt speak, then you probably heard him talk about the S'Klallam cultural and ethical values that guided him. Kurt's mantra: Plan for seven generations ahead. In doing so, Kurt became a passionate advocate of aquaculture—both finfish and shellfish—as he witnessed the decline of native species, largely through upland development and loss of habitat. When asked why he became such a passionate advocate of aquaculture, Kurt had a simple answer: “Our traditional fishing grounds are no longer as productive as they used to be. To truly be a sovereign nation, we as a people need food sovereignty. As a major part of that, we need to feed our people nutritious seafood and its important marine nutrients—and it is part of our culture to plan seven generations ahead.” It was Kurt's bold

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dream to bring marine aquaculture to Port Angeles, the Olympic Peninsula, and to the traditional seafood grounds of the Jamestown S’Klallam Tribe. While he left us before his dream could completely become a reality, his spirit is still with us and his vision lives on. While we come to grips with our loss, we say this: Kurt, to honor you, to honor your vision, we will move forward with your dream.

Mark Schley, Norplex Inc.

Mark was the only son of Ralph and Lois Schley, the founders and former owners of Norplex, Inc. Mark worked for the family business on and off for several years at its headquarters in Auburn. He was instrumental in establishing and growing the Chehalis plant.

Norplex has been a PCSGA Allied member for several decades, generously hosting the Hospitality Suite at our annual Conference and Tradeshow. When Mark’s father Ralph passed a few years ago, PCSGA renamed their annual golf tournament the Schley Golf Scramble, paying tribute to the Schley family. Mark is survived by his mother Lois, son Lucas and daughter Grace.

The Schley estate recently donated \$1000 to PCSGA’s Grower Enrichment and Development Fund on behalf of Mark and Ralph.



Mark and Ralph Schley

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Calendar of Events

August

- 5: National Oyster Day!
- 11-14: Aquaculture America 2021 - San Antonio, TX
- 15: Ecosystem Services Photo Contest Submission Due
- 31: PCSGA Board Meeting - via Zoom

September

- 15: Ecosystem Services Photo Contest Submission Due
- 20-22: 75th Annual PCSGA Shellfish Growers Conference
- TBD: PCSGA Annual General Membership Meeting

October

- 15: Ecosystem Services Photo Contest Submission Due
- 20: PCSGA Board Meeting - via Zoom



PCSGA Grower Enrichment and Development Fund

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

Apply for funds at: www.pcsga.org