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ALASKA FISHERMAN'S Incorporating JOURNAL

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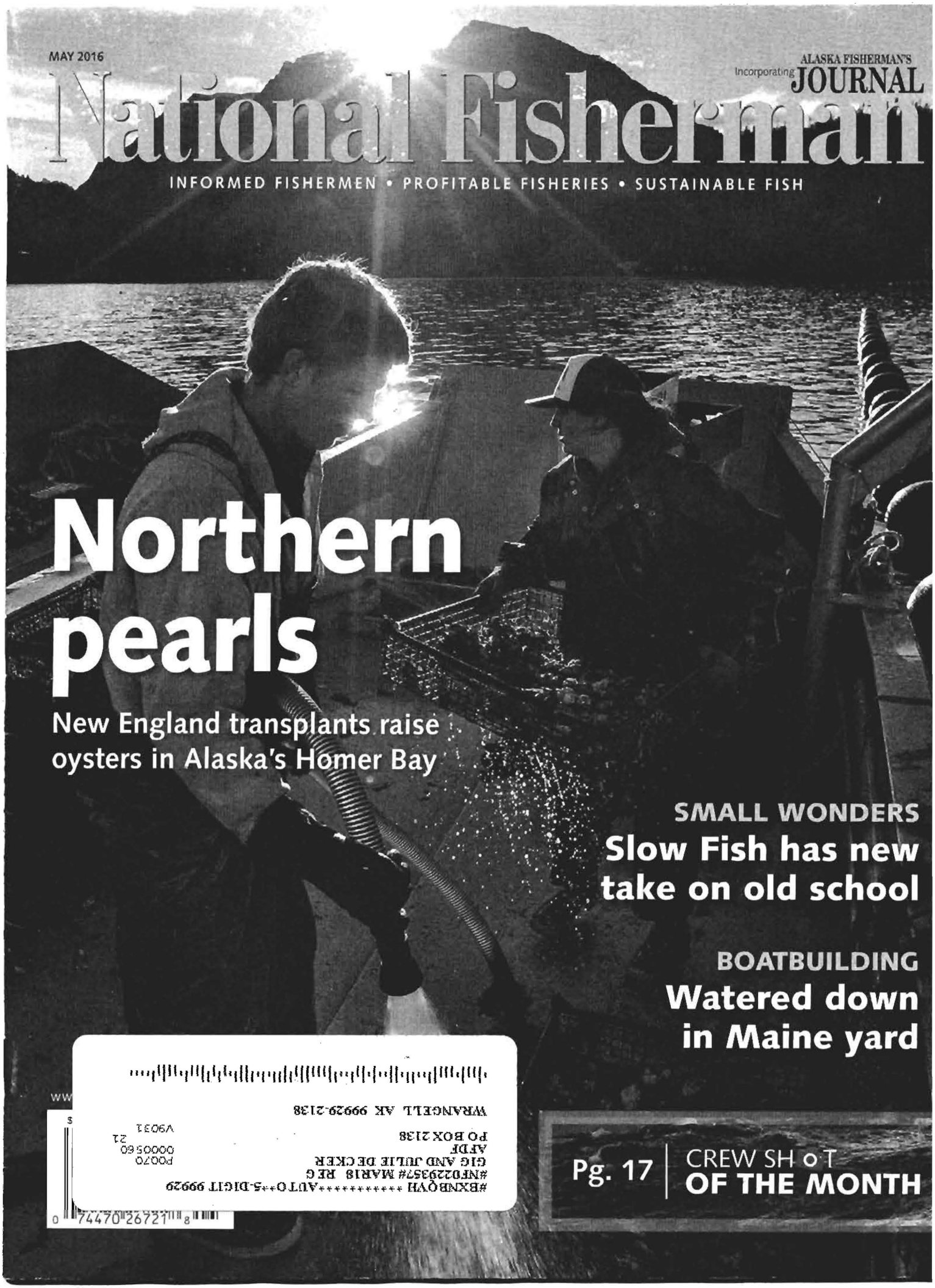


Northern pearls

New England transplants raise oysters in Alaska's Homer Bay

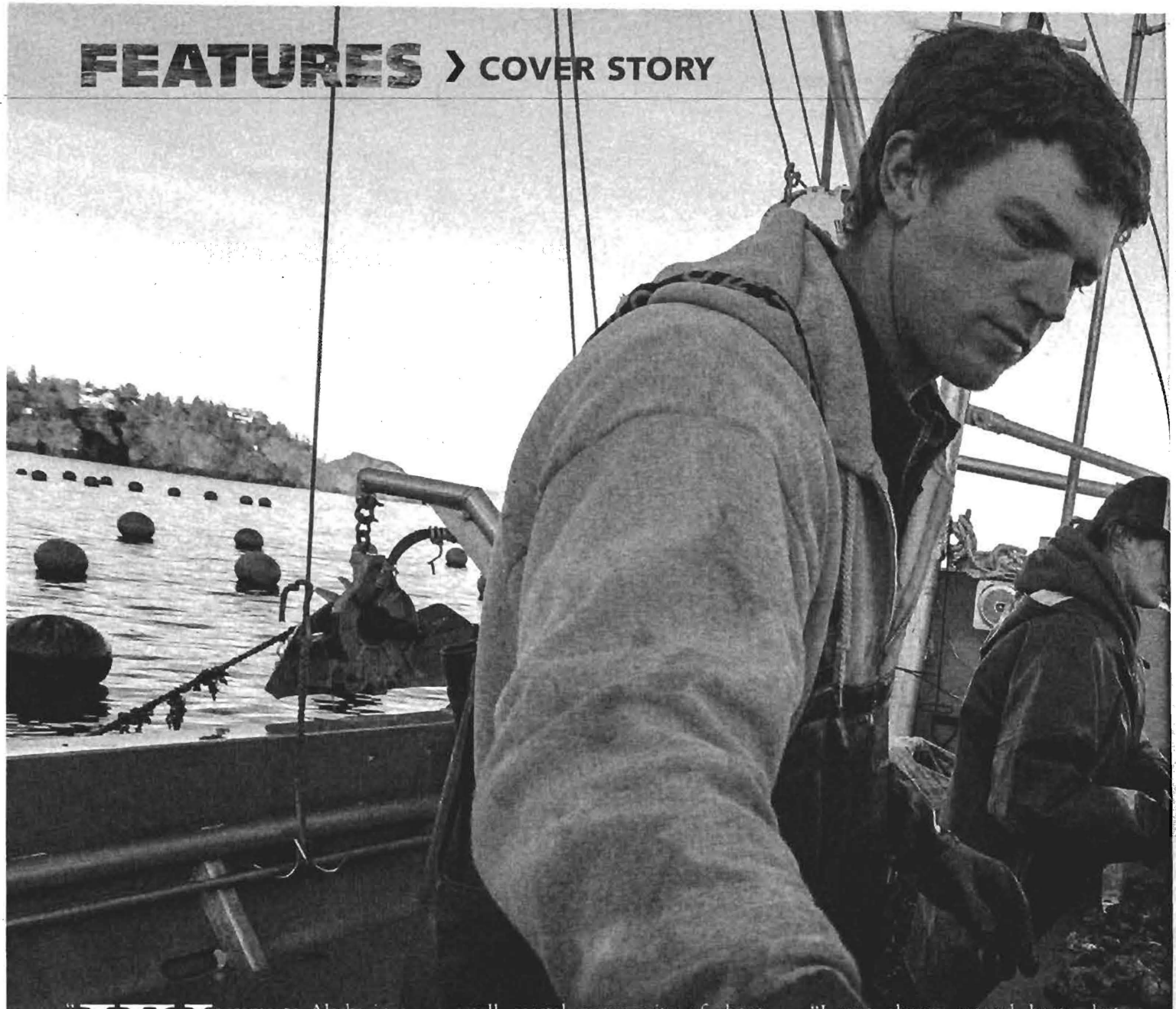
SMALL WONDERS

Slow Fish has new take on old school

BOATBUILDING

Watered down in Maine yard

Pg. 17 | CREW SHOT OF THE MONTH



"We came to Alaska in a camper for our honeymoon, made it to Homer and thought it'd be the perfect place to start up a shellfish business," says Weatherly Bates, 34.

She and her husband, Greg, also 34, grew up in Little Compton, R.I., a small coastal community of about 3,000 people. They found their footing in historic East Coast fisheries and through their studies in the University of Rhode Island's aquaculture and fisheries technology program.

GOOGLE MAPS

As a kid, she served as a deckhand to her father, Bud Phillips, in commercial rod and reel fluke, bass, scup and tautog. "The markets are all right there; people would come out from the cities, and we just sold fish from the boat."

The couple's focus on shellfish aquaculture is a response to witnessing the decline of wild species. "Shellfish has been Greg's main passion since he was a young man growing up in Rhode Island," says Weatherly.

"I was always around boats, but didn't work them so much," Greg says. "But Weatherly and I did a lot of recreational harvest for clams and oysters when we were teenagers, and it seemed like a good thing to do in Rhode Island — there was a future in it."

The couple, however, found opportunity in Maine in 2003, where they ran a shellfish farm on the Saint George River for four years.

When they came west as newlyweds in 2007, they found a budding shellfish industry in Alaska, nothing like what they'd left behind.

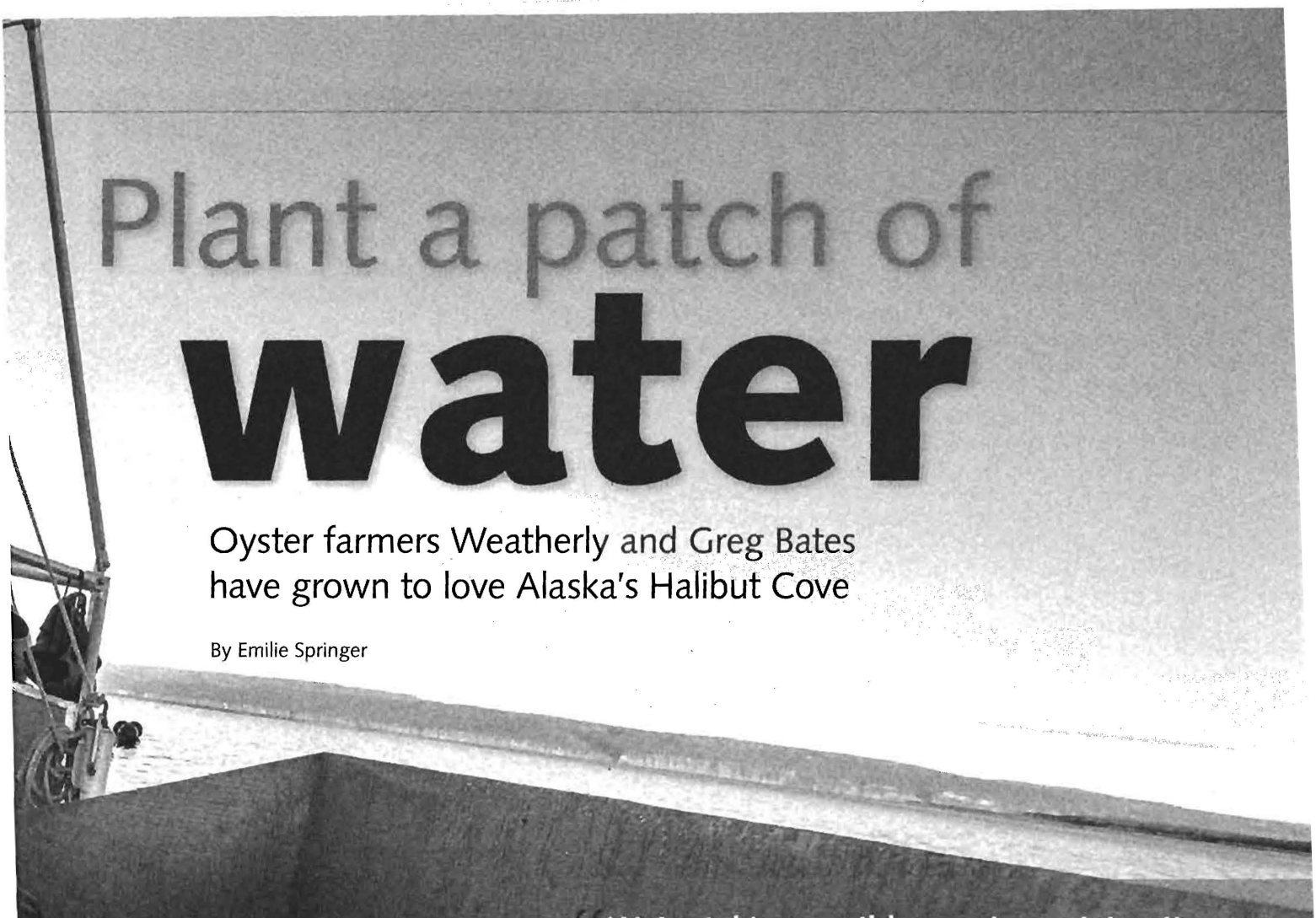
"We were kind of shocked that there really aren't any recreational diggers here or commercial diggers. There's a real digger culture on the East Coast," says Weatherly.

The Bateses and their two children are now the first family in the state

Plant a patch of water

Oyster farmers Weatherly and Greg Bates have grown to love Alaska's Halibut Cove

By Emilie Springer



> "We're taking a wild organism, giving it a habitat to grow and then harvesting it."
>
> — Weatherly Bates

to be fully supported by their farms, which they started in 2010. The couple's 22.5-acre sea plot across the bay from Homer also supports a stronger local ecosystem by establishing healthy shellfish stocks that benefit many other marine creatures. The farms "deliver habitat like a fish aggregating device, juvenile fish and invertebrate habitat. The farms create major ecosystem benefits," Weatherly says.

Alaska's mariculture industry has been slow to start, but production was over $1 million in 2015. There isn't much competition in it because the United States is so far behind in aquaculture production compared to production in Asia, South America and Northern Europe. Weatherly explains markets increasing for "algae and aquatic kelp for things like bio fuel. There's sugar kelp — all kinds of prospects."

From seed to sold

Securing a credible seed source is an important first step, and certification requires a strict importation process. Currently there are two state hatcheries — one in Southeast and one in Seward, but all oyster seed originate out of state because, to date, oysters are not spawned in Alaska. "Our farm is based on Pacific oysters, *Crassostrea gigas*," says Weatherly.

Seed orders are secured when the oysters are at 3 to 4 millimeters, about the size of a grain of sand. Then the oysters go into nursery before being planted in lantern nets or the more modern Aqua-Pacific wire mesh trays. The Bates farm uses 10,000 of the trays. "We have 22

Weatherly and Greg Bates plant and harvest oysters on 10,000 trays.

Lorin Holmes / Alaska Dispatch News photos

500-foot-long lines with 50 buoys each, and the oysters hang in trays suspended from the lines," says Weatherly. "The mussel rafts are 40 by 40 feet, and these are huge compared to anything attempted earlier."

They've tended their patch of sea on a 28-foot Snobal bowpicker, originally used for the Copper River salmon drift-gillnet fishery. At press time they were expecting to upgrade to 40-foot Osmond Beal designed lobster boat, built by H&H Marine in Steuben, Maine. "We chose this boat for increased deck space and general transportation needs of the product from the farm," says Weatherly.

"We are aiming to plant between 3 [million] and 5 million seed a year, and that's still pretty small by West Coast standards," says Weatherly. "We don't really have employees yet, but we will in the next year." By comparison, the large Washington state farms might start with something like 50 million seed.

"The standard expectation is about 50 percent survival," says Greg. Many features affect survival: winter water temperatures, husbandry results. "We've never experienced that much mortality. It's just what's projected by industry standard," he adds.

"At this point, our farm is about three quarters oyster and one quarter mussel. We want to expand the mussels for various reasons," says Weatherly. "The Kachemak Bay mussels, *Mytilus trossuls*, provide a native seed source — we collect them here. They're endemic — we set out spat collectors. The mussels are wild to the region and again, that promotes the local appreciation of food source. We're proud of that because we're taking a wild organism, giving it a habitat to grow and then harvesting it. The mussels have been pretty wiped out by the sea otter congregations here. But they'll grow, and we can market them."

Mussels grow on 25-foot strings in 40- by 40-foot rafts.

Alaska farmed oysters are not fed, they eat what the local water provides — algae and zooplankton. But aside from eating, farming requires constant hands-on attention. The oysters need to be regularly sorted and tumbled to prevent them from growing together, sticking to each other.

Greg and Weatherly do all of this maintenance themselves and also run the gamut of jobs from growing to processing to dealing because the industry doesn't have

Growing in numbers

"The first aquaculture sites were in Halibut Cove Lagoon," says Homer, Alaska, local Bob Hartley, former oyster harvester, of the first oyster farms in Kachemak Bay.

"They were kind of a test case to see how it could transpire. These were supported by the state of Alaska to get a sense of how the operations might best work. And it was actually a mussel operation, not oysters." The lagoon sites became a challenge to operate when the water space conflicted with Alaska's Kachemak Bay State Park. Halibut Cove and Jakolof Bay hosted other originating sites.

The first legalized aquaculture farms in the state of Alaska were established in the early 1990s, but there was some much earlier activity, especially in Southeast Alaska, without structured regulations. "People were trying to farm even around the Gold Rush time, and at that point were probably modeling after the farms in Washington," Hartley explains.

"Originally, shellfish farming was an opportune choice from the state of Alaska after they put a ban on finfish farming," says Marie Bader, one of Homer's original Peterson Bay oyster farmers. "Fish and Game first started talking about it in the 1989-90 legislative session."

"No one can own marine water, so you get an extended lease on the space of interest," says Hartley. "In the beginning you could only have a lease for a year, but a crop of oysters takes three years to grow, so that really wasn't feasible — you don't know how everything looks after only a year. A bank didn't want to give you a loan for something so brief. Eventually that transitioned to a much longer renewable lease."

The state of Washington produces the most shellfish in the nation. The Pacific Coast is the largest producer of farmed shellfish. Virginia has an increasing market, Cape Cod in Massachusetts is substantial, and midcoast Maine's Rockland, Camden and Saint George are productive areas. The Pacific Coast Shellfish Growers Association was founded in 1930 as a support organization and represents growers in Alaska, Washington, Oregon, California and Hawaii. Alaska projections are quickly rising.

At the end of February, Alaska Gov. Bill Walker issued an administrative order for the creation of a mariculture task force in the state. The task force has until March 2018 to establish a set of comprehensive recommendations related to social and environmental components of Alaska's prospective mariculture industry.

"Mariculture represents a tremendous opportunity to diversify our economy, strengthen our coastal communities, and provide healthy food to the world by using sustainable practices that are a foundation of our current fishery resources," says Walker. "The goal of this task force is to bring key stakeholders together and determine how the state can help this industry prosper with Alaska-grown products."

The positions on the 11-member task force are not set yet, but the appointed members will include the commissioners of the Alaska Department of Fish and Game and the Department of Commerce, Community and Economic Developments, a University of Alaska representative, the director of the Alaska Sea Grant Marine Advisory Program and seven at-large stakeholders with various backgrounds. — *E.S.*

The pair weighs and bags mussels, which they started growing in 2013.

processing infrastructure.

"Imagine trying to go out and get all that salmon that you do in your seiner and not having a way to deliver it," says Greg. "We have to deal with all the logistics of business, from seed to selling."

Once harvested, the shellfish are transported back across the bay on ice in insulated fish totes. They are then packed, shipped and delivered with gel packs in wetlock boxes from the Bates family shop on the Homer side of the bay to locations across the state and beyond. Another variation that separates farm standards from the east to west coast, "here the on the west coast, oysters are sold by the dozen, not weight or number. Back east, oysters are typically sold in 100 count boxes and West Coast is 10 dozen count bags," said Weatherly.

Homer is "on the road system," as Alaskans accustomed to remote island living like to say, so delivery to other locations like Seward, Soldotna and even the restaurants in Anchorage is easier to manage compared to more remote farm sites. "Most of our deliveries are on the Kenai Peninsula," Weatherly says, though she has driven four to five hours to deliver orders to Seward or Anchorage.

As far as their customers are concerned, appealing to the senses is important. Touch, taste, smell, physical appearance and consistencies in size, habitat and water quality — are key components for the connoisseur of live oysters. Mussels, however, are a more uniform product, and buyers aren't necessarily looking for all the details of an oyster buyer.

The Homer Spit is a long, narrow stretch of land extending into Kachemak Bay and summer runs full-speed with innovative restaurants, art galleries, sport fish operations, lodging opportunities.

So with all this building opportunity, why aren't more people jumping into the business?

"It's very hard work. The worst thing to do is have a fisherman try to go into aquatic farming because it's hard, meticulous labor, and many fishermen aren't accustomed to dealing with the actual seafood product that way... You have to take care of the crop full-time. And you really have to care for it," says local and former oyster harvester Bob Hartley.

But those perspectives may begin to shift for Alaskans — who certainly enjoy the lifestyles of coastal communities and working waterfronts — now that there are success stories like this one to tell.

"We really want to talk about commercial production and encourage young people to get into this," says Weatherly. "It's really exciting, and we're pleased to be a fresh and supportive voice."

Even as pioneers in their own right, the Bateses recognize that they didn't make the first wake in this venture.

"We need to credit those first farmers for taking the initial step and creating a marketable name for the Kachemak Bay oyster," Weatherly explains. "They really helped get this started, and we appreciate that very much." NF

Emilie Springer is an anthropology Ph.D. candidate at University of Alaska at Fairbanks, focusing on cultural components of fishing.