41°N

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FACING ADVERSITY

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41°N

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FACING ADVERSITY

THE CHILDREN'S BOOK *ZEN SHORTS* INCLUDES AN OLD TAOIST STORY about a farmer whose horse runs away. His neighbors tell him this is bad luck, but the farmer answers, "Maybe." Then the horse returns with two other wild horses. The neighbors exclaim that this is such good luck. "Maybe," the farmer again replies. His son attempts to ride one of the new horses, is thrown off, and breaks his leg. Bad luck. Maybe. And so on.

This tale came to my mind when reflecting on this issue of *41°N*. The pandemic has had tragic consequences for people and communities, of course, but it has also managed to get people active outside more, as we see in Meredith Haas's article, and has even brought families closer together as we see in Elaine Lembo's article. Both writers found that some businesses had a summer COVID boom as people sought boat and kayak rentals and shopped for outdoor gear. But the crush of people flocking to limited recreation areas and activities has led to everything from littering to parking violations to angry confrontations.

Unintended consequences is also a theme running through *The Outlaw Ocean*, the book we reviewed for this issue, where pressure asserted in one area—using armed guards aboard shipping vessels to curtail piracy, for instance—leads to more pressure in another area—like increased prices for goods transported by sea.

How we deal with adversity is fluid—as Haas reports, people's reactions in early spring were very different than late summer—and with the pandemic, as with other challenges that you will read about in this issue, we still have a chance to change the ending of the story. Hopefully for the better.

—MONICA ALLARD COX
Editor

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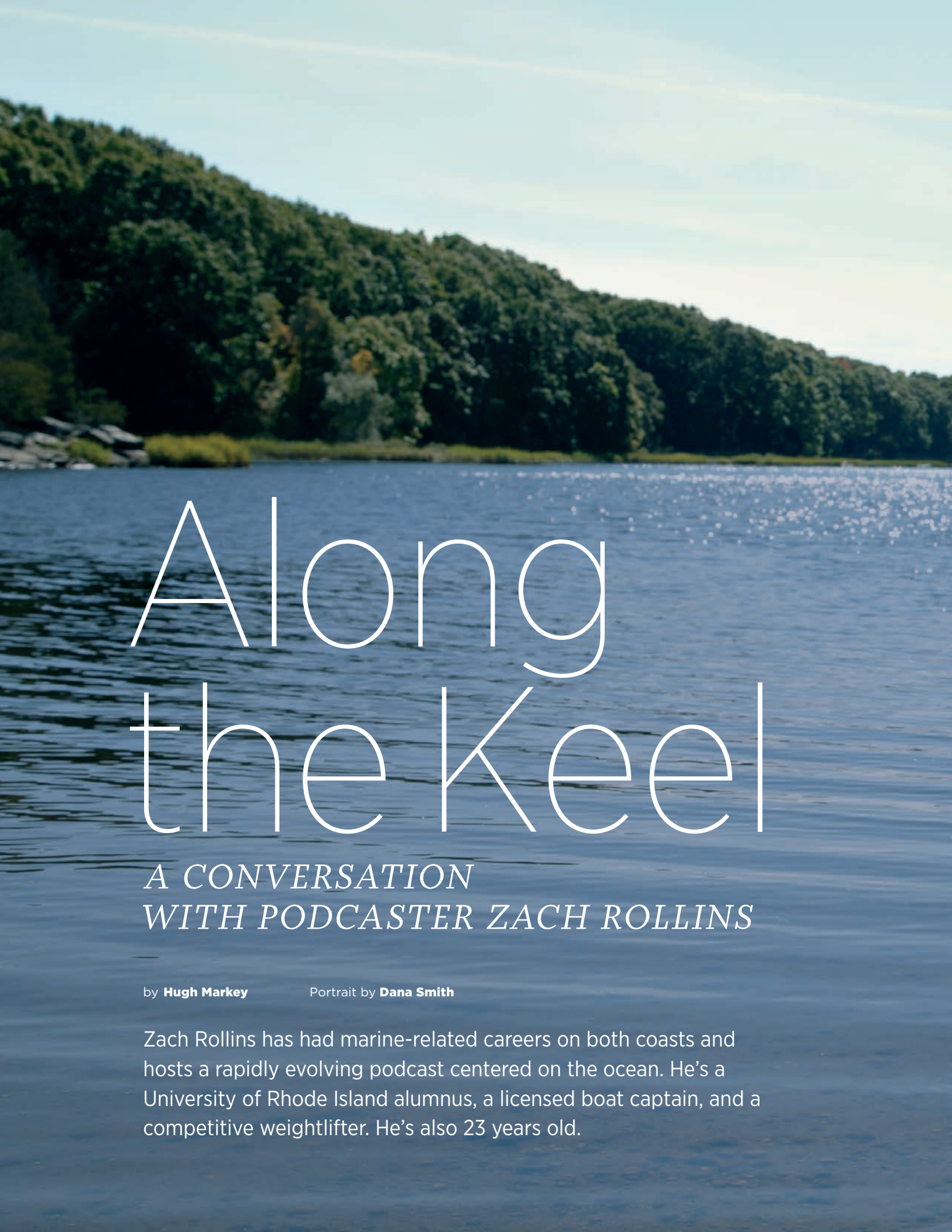


Along the Keel

A CONVERSATION WITH PODCASTER ZACH ROLLINS

by **Hugh Markey** Portrait by **Dana Smith**

Zach Rollins has had marine-related careers on both coasts and hosts a rapidly evolving podcast centered on the ocean. He's a University of Rhode Island alumnus, a licensed boat captain, and a competitive weightlifter. He's also 23 years old.

Rollins was born in California within sight of the Pacific. His parents moved around a bit when he was very young, but it was the Rhode Island coastline that was the biggest influence in his early life. 41° North spoke with him about his experience and his goals.

How did the Rhode Island coast shape who you are?

It's hard to put into words, but it was incredibly influential just because of the nature of how the coastline is constructed—it allows for so much exploration. There are so many nooks and crannies and coves in Narragansett Bay.

I grew up near Mill Creek in Wickford, and growing up, we used to call it the Amazon. As you travel down the creek, these 6-foot phragmites seem huge; they feel like they're 50 feet high, and you go up there and you see the red-winged blackbirds and the herons hunting on the shoreline and in the marsh. And as you travel down, you kind of start to see the beginning of an estuary, the estuary turns into a harbor, and the harbor turns into a bay.

Growing up, my parents wouldn't allow me to go and take out our 12-foot Zodiac Rib power boat alone. I'd been rowing a boat since I was probably 6 but couldn't take the power one. The deal was, if I could swim across the creek without a life jacket, then I would get to take the boat. Well, you'd better believe that the summer I was about 12, I swam that creek. After that, I could take the boat, so that kind of opened a whole new world for me.

As a college student, you got your captain's license.

I had been working in the marine industry at a boatyard, and I saw getting my captain's license as the next step because then I [could] get a job working on the water.

Over Christmas break and through the spring semester of senior year, I studied and got my license. It just so happens that when I went to take the test, the test administrator asked me, 'Hey, what are you doing this summer?'

'Using my captain's license, hopefully.'

'Do you want a job? I want to start this boater program to help teach people how to drive boats.'

So, I got the job teaching. It was very much trial by fire … you know, I know how to drive a boat. But to try and get someone who has never touched a boat in their life to dock it and feel confident with themselves … inside, when I first started, I was like, 'Oh [no], they're gonna crash, they're gonna crash!'

So, you know, to be kind of put in that position where it's like, 'All right, you have to figure out how to teach this person.' It was a great learning experience, and that carried over to Hawaii.

Shortly after getting his degree in marine affairs from URI, Rollins was casting about for a new challenge. He had weathered some difficult personal experiences. He began reading Zen and the Art of Motorcycle Maintenance *about a transformative cross-country journey. Then a friend with similar entrepreneurial interests and wanderlust called him and suggested they move to Hawaii. The next day, he agreed to go. Soon, he was working as a captain for one tour company, and then he was hired by another.*

For me, every time I stepped on the boat, [I thought], 'These people paid X amount of dollars to come out with me. So, it would be a disservice for me to not provide the best trip possible.' I also had this opportunity to share and to educate. You can really connect with the guests because nine times out of 10, they've never seen this in their entire life. I met hundreds and hundreds of people from all around the world, speaking different languages, from different walks of life, and some saved every single penny that they ever owned to come on this one trip with me and my crew.

To see something like a manta ray, or a humpback whale—I just knew I had to share that with someone. And to know that this might be their only opportunity to see it. Who knows, maybe if they're a younger person, they go on to become the next Jacques Cousteau. I have had customers tell me that this was a life changing experience.

But at the same time, it also gave me the confidence to think, 'I can apply what I have done so far in school, in work.' I just enjoy teaching. At the end of the day, I enjoy being able to share what I know.

The COVID-19 pandemic devastated Hawaii's tourism industry, and Rollins returned to Rhode Island. He now hosts a podcast, Along the Keel*, featuring people whose lives are tied to the ocean, from the Maine couple who recycle fishing bibs into backpacks and accessories to support local fishing charities to the artist who started out in marine science, but whose experiences led him to believe that he could best preserve his beloved underwater world by creating sculptures out of debris, including a 30-foot piece depicting waves, utilizing 20,000 golf balls collected along the shore.*

When did your podcast start?

The podcast came to me while I was on a plane a couple of years ago. I was toying with this idea of how cool it would be to be able to show people the different lives of people on the water. Like if you're a tugboat captain, that's completely different than someone that drives a ferry. I wanted to be able to hold a genuine conversation with someone that might also be educational for the listener. I started contacting people whose businesses related to the ocean.

[Guests] were very interested in being on a podcast, and, quite frankly, it was a podcast that didn't even exist yet, right? And when it was finally out there, the first week I got, like 25 downloads, mostly friends and family. But the next week I got 50, and the next week after there were 100. Now we've gone on to have thousands of downloads a month. It's kind of unnerving. Because you're like, 'All right, well I need to keep pushing and making more shows and getting more people.'

I had this fear that I was going to run out of people, you know. And it's funny because one interview led to another interview, and one person led to the next.

I noticed that a fair number of your guests are artists.

I think art and conservation go hand in hand. Because conservation is really an interpretation of what's important and what's valuable, and how it relates to you. I think that's exactly what artists do—interpret what's valuable. I think that that same concept applies to guys like Ethan Estess, who is going out there making a big sculpture out of fishing nets and golf balls that were all scavenged from the ocean. They're bringing to light issues that would otherwise go unnoticed.

What's ahead for you?

I actually just signed a contract with a company that is doing the geophysical surveys off the coast of Rhode Island and off of Montauk, and it's all for the wind farms. Whatever else may happen, I'm going to continue to work around the ocean because it continues to feed the podcast. The podcast is something with an educational element, a business side; it has a lot of legs. I want it to be a place where people can go and be entertained and learn something new about the ocean. I'm teaching people how to love the ocean.

THE EXPERIMENTAL COAST

RHODE ISLAND'S LIVING SHORELINE PROJECT COULD REDUCE URBAN EROSION

by **Annie Sherman**

Photographs by **Monica Allard Cox**

WALKING DOWN THE BEACH AT ROSE LARISA PARK in East Providence's Riverside neighborhood, Janet Freedman points out the visible signs of erosion. Trees are sliding over the silty, 40-foot bluff as if chopped at their ankles, the concrete sea wall has crumbled in large chunks that lay abandoned along the narrow shore, and ruins of ferry dock pilings sprout from the surface as a reminder of the Crescent Beach amusement park and Shore Dinner Hall that was built in the 1860s.

Narragansett Bay's increasing wave action and rising sea levels are the effects of global warming and have caused the beach and steep wall of sediment to erode, says Freedman, a coastal geologist at the Rhode Island Coastal Resources Management Council (CRMC). But a new nature-based experiment that she is co-piloting with The Nature Conservancy (TNC) might help restore the coastline, using plants and natural materials to help rebuild from the ground up.

"With sea level rise, you can only walk this beach at low tide. And the bluffs are eroding as waves undercut the base of the slope, then the trees and stone wall remnants are at the mercy of gravity, falling off the bluff and taking sediment with them. It's a constant process," Freedman says. "There have been so many different attempts to stop erosion here, and they work for a while, but they're not permanent. We needed to come up with an alternative to putting in a seawall and taking away public access. We are going to lose more and more beach, so we asked ourselves, 'Are there other things we can do that will protect this bluff and allow public access?'"

Instead of depleting the shoreline with another abiotic concrete wall, a nature-based approach featuring stone, natural plantings, and biodegradable materials is more environmentally compatible with the existing ecosystem, says John O'Brien, policy and partnership specialist at TNC. The strategy had worked elsewhere to restrict bluff erosion and create habitat, so TNC and CRMC collaborated with the city of East Providence to try it here.

Two installation sites on the beach cover 230 linear feet, including intertidal sills with beach grass plantings and coconut coir log revetments buried 30 feet up the slope that literally shore up the shore. Both sites feature layers of rock and fibers submerged in the ground to establish a strong foundation, topped by native Rhode Island plantings to secure everything in place.

The four rock sills set at mid-tide protect a garden

of 2,000 *Spartina* and *Distichlis* salt grass plants growing through a layer of fabric made of biodegradable coconut fibers. High tide washes over the sills completely, so they are spaced 5 feet apart to allow drainage and escape for any sea creatures trapped behind them. The salt grass plants will grow to form a dense wetland that binds the soil in place. O'Brien says this new tidal marsh will stop waves before they reach the bluff.

"Rather than concrete or sheet piling, we added a series of rock sills in front to cut down on wave energy, as well as marsh grasses that are nature's way of reducing incoming energy," O'Brien explains. "This is just the beginning. The marsh will expand, so the bluff will be protected."

About 100 yards along the beach toward Sabin Point, the second site offers a series of coconut coir logs interred deep in the slope beneath more coconut sheeting and salt grasses. Coupled with a rock toe at the base to disrupt the force of waves here, the bluff won't ooze into the Providence River.

"Stone lasts longer than coconut coir fabric, but the test is to see if the bluff gets established with a blanket of living stem and root vegetation to stabilize it and make it resistant to the type of storm energy it sees," O'Brien says. "There are other spots in Rhode Island where this could be beneficial."

The sensitivity and potential for this coastal garden experiment means Freedman and O'Brien treat it as their pet project. Both tend the fencing around the marsh plants to keep hungry geese away and clear debris or seaweed that has washed in with the tide. They check the installations weekly, analyze progress, and take it personally when a plant doesn't make it. The *Distichlis*, for example, wasn't flourishing after six weeks, they say, but they're hopeful it will develop in time.

Construction was completed in May, and Freedman and O'Brien will continue monitoring for three years through photographic and biological analysis. Wooden posts around the sites offer a stable and consistent camera mounting spot to take photos over time, where they can evaluate the effects across the whole installation to see where it's working and ensure there aren't unintended consequences.

"We want to see if it creates erosion elsewhere, or other impacts. It's good to have controlled and uncontrolled sections of the shoreline so we can compare," Freedman says. "We were not sure if the structures would cause erosion in adjacent areas, but it looks like [they're] doing okay."

Professor Stephen Licht from the University of Rhode Island is leading a team of engineering students taking aerial drone surveys, pre-and post-construction as well as after storms, to gauge sediment fluctuation and movement of the installations themselves. Creating 3D images and digital elevation models, called photo mosaics, using "structure from motion" technology, they collect topographical data that will complete a larger state database.

"It can be a great tool, but we need to know more about it," O'Brien says. "We aspire to assemble a document about integrated coastal restoration and nature-based approaches versus alternate hard methods, to provide guidance for state agencies, engineers, and private homeowners to solve the eroding shoreline."

Adjacent homeowners also have been making their own efforts to secure their properties for decades. Freedman says there were 47 recent applications to CRMC for new structures within a mile of this site. They are already allowed to build shoreline structures because this is classified as a Type 2 low-intensity shoreline, so they don't need a variance or special exception from CRMC. But she and O'Brien advise home-owners to consider methods other than retaining walls and hard structures as erosion protection.

Mayor Bob DaSilva, who says he has fond memories of the area from childhood, when he enjoyed the amusement rides at Crescent Park, recognizes the need for a new approach to erosion control. "Previous actions such as the replacement bulkheads, riprap, and seawalls failed," he says. "I think this project is fantastic. There has been a well-thought-out approach among partners to restore the shoreline for generations to come to enjoy our beautiful coast."

Plants emerge through the coconut-fiber fabric, as intended, as part of the bluff stabilization project at Rose Larisa Park.

City engineer Erik Skadberg echoes the concern for this site, witnessing its decline for 15 years. The city has largely left the site alone, so the beach has little buffer from increased wave action and rising seas, while a second graffitied retaining wall, built decades ago, no longer offers sufficient support for the bluff. Trees continue to fall and block the beach, which becomes an issue of public safety and city maintenance. So much of the sand has eroded that the city has had to keep adding bottom steps to the stairway leading down from the park to the beach.

"Some of those walls are close to 100 years old, and environmental conditions are worse now. That bank keeps sliding down towards the beach," he says. "This has been on our radar, and it's a local beach area so residents use it actively. I think this will do a good job with everyday wave action."

In addition to providing construction materials, Skadberg and his team created a survey and existing conditions plan, which was included in the $142,000 grant application to National Oceanic and Atmospheric Administration. As part of a $1 million regional TNC program to support coastal restoration across New England, states share what they have learned with each other. Additional funds from 11th Hour Racing and CRMC's Coastal and Estuarine Habitat Restoration Trust Fund completed the $232,000 price tag.

Ocean-facing beaches shift constantly thanks to Mother Nature, but even in Narragansett Bay, shorelines are vulnerable around the state. Freedman, O'Brien, and others are cautiously optimistic that this experiment will work and can be applied to other shovel-ready projects.

"This is not designed for 100-year storms. The design life will be 20 years, and the coconut coir will break down in seven to 10 years, depending on the sunlight, then hopefully the plants take over. We can tell how it's working if it survives a big storm, like a hurricane Irene or Sandy," Freedman says.

"Nature has a great resilience," O'Brien adds. "But we need to see a change in the approach to shoreline erosion, and certainly an increase in funding."

GETAWAY

PANDEMIC DRIVES RECREATION, VACATIONS, OUT TO SEA

by **Elaine Lembo**

Photograph by Monica Allard Cox

ON A WHIM, CHRISTINE BAUM, A CRANSTON HIGH School West teacher who's prone to seasickness, decided to join the Rhode Island franchise of Freedom Boat Club, which offers access to power boats 22 to 24 feet long for day use.

Her plan was to replace a summer wrecked by the pandemic—her family's normal annual itinerary is to travel domestically and abroad for five weeks—with day cruises close to home, surrounded by her kids, their friends, her mother, and her husband.

At just past 4 p.m. on the last day of April 2020, Baum opened an email promotion from Freedom. By 4:20 p.m., she was a member, paying the deposit over the phone. In early May, her family was on the water. By mid-summer, they'd docked and dined in Warwick and anchored at Mackerel Cove, off Conanicut Island, and Potter Cove, off Prudence Island.

"The kids are learning a lot about the coastline we normally drive by," she says. "It's definitely something we didn't have on our bucket list, and it's due to COVID-19 that we have it. Now that we do, we'll still travel and fit this in next summer. We've become boat people."

Photograph by Onne van der Wal

And Baum, focused on deck work and having fun with her family, no longer gets seasick.

Silver Linings

Whether it's a landlubber dipping her toe in Narragansett Bay for the first time, an angler who decided to reunite with his Osprey cabin cruiser, or a salt who rolled the canvas sail cover off her neglected Pearson sloop, the COVID-19 pandemic is unquestionably the reason people got out on the water and enjoyed themselves in summer 2020.

While the outcome of the global pandemic is far from over, there is a silver lining for the industry that serves the recreating public—Rhode Island's marine trades sector, a highly visible, resilient contributor to the state's economy and identity.

"This is the first economic downturn that has kept the industry where it needs to be, and in many cases, has increased sales," says Wendy Mackie, CEO of the Rhode Island Marine Trades Association (RIMTA), an advocacy group. "During every other economic downturn, our industry is the first to go and last to come back, because people's recreational budgets are nonessential. You don't buy a Harley Davidson motorcycle at a bottom of a downturn, and you don't buy a boat, either—except now."

Mother Nature and the timing of the virus's spread played a role, too. "We were lucky," Mackie says. "In April, the weather's usually not great, and boatyards are not yet flooded with customers. With summer, boating is seen as a pastime that's family-oriented and naturally socially distant. You can feel free and safe out on the water without worrying about COVID-19."

What Freedom experienced—going from zero to record sales in a couple of months—is similar, with some stark exceptions, to what happened at other marine businesses and organizations. As Rhode Island phased in a reopening laden with regulations and guidance, marine businesses and groups, suddenly flooded with customer activity, also scrambled to take stock of the fallout from lockdown, port closures, and restrictions on interstate travel.

What they discovered makes for a compendium of noteworthy turns of events, statistics, and a few surprises.

Changes by the Minute

Declaring that the activities of marinas and boatyards, yacht clubs, and harbor masters are "an important part of our economy and way of life," in early April, the R.I. Department of Environmental Management (DEM) issued a policy statement detailing their continued operation under strict safety guidelines, despite status as "non-essential and elective." Marine retail outlets that fell into the nonessential category outlined by the

Rhode Island Department of Business Regulation (DBR) on March 28 had the option of operating online and by telephone.

As RIMTA ramped up activities to provide 24/7 interpretation on its website and through "zoominars," email, and phone support for members confused by rules "changing by the minute it felt like at times," according to Mackie, its staff and directors also reached out to a vast network of contacts in state government as well as to national and regional marine trades industry groups.

"Different dynamics were affecting different parts of the industry at different times, and we were trying to be as informative as we could and stay connected with members," says Susan Daly, RIMTA vice president of strategy. "We wanted to try and understand how much business was from out of state, so we conducted a members survey and found out that 50% of the boats kept in Rhode Island belong to people from other states. That was a big deal: What would marinas do if the borders are shut and owners can't come and work on their boats?"

But by the end of April, things were changing again: with new positive COVID-19 cases declining, the state unveiled plans for a phased reopening. And the RIMPTA members' survey brought more discoveries: 80% of boatyards and marinas were functioning, and the 20% of the sector that had shut down because it was retail was now busy with online and phone ordering.

20,000 Steps

Among attributes, what the tiniest state of the Union has big is a rich, diverse, nautical heritage and a 400-mile coastline, and these help account for why the marine trades are a driver of Rhode Island's economy, even now, in a downturn.

According to a 2018 economic impact study completed by RIMTA with the University of Rhode Island, the marine trades, which includes recreational boating, is comprised of 1,712 firms that generate $2.65 billion in annual gross sales and employ 13,337 people.

Specifically, the sector encompasses boat building and repair; retail boat and equipment sales; marine construction, manufacturing, services, and supply; diving and salvage; marinas, docks, and yacht clubs; and charter and cruise services. Of that list, marine services and supply is the largest subsector. Next are marinas, docks, and yacht clubs, followed by charter and cruise services.

Newport Nautical, a retail shop selling gear, parts, and consignment goods on the outskirts of the City by the Sea, was deemed nonessential and closed down as ordered.

"We scratched our heads," says Chris Heaton, who runs the store with his father, Bud. "Hardware stores remained open. We called our state representative, the governor's office, explained who we were and what we did, that we sell to commercial fishermen."

They applied for, and on the second round, received, assistance from the Payroll Protection Plan (PPP). They revamped the website, offering curbside pickup for phone and website orders.

"We adapted to a changing environment and lost business for sure, but the business churned along," Heaton says. "People would email and be outside in their cars. They'd ask us, 'Can you go in and check on this or that?' We got good exercise! My dad and I got 20,000 steps a day!"

By the time the shop reopened, the Heatons couldn't keep up. "Usually, bottom paint goes first. This year, people were calling up frantic for used dinghies and outboards. We sold a dozen trailers. We've never sold that many trailers. It's either a year for trailers, or people are using small boats to get back and forth again because launch services had been restricted."

Flying off Shelves

Rhode Island-based boatbuilders include manufacturers of personal, recreational, and racing watercraft, from 75-foot racing machines to vie for the 36th America's Cup in 2021 to 8-foot dinghies for school and junior instructional programs.

At Zim Sailing, whose Bristol plant produces up to 170 small boats annually, the pandemic solved a nagging problem. "We always had a hard time reaching the retail recreational customer directly," says Bob Adam, sales vice president, "and COVID-19 has caused them to find us in a big way."

With cancellation of regattas, boat shows, and conferences that would have added up to about 250 travel days in a typical year, Zim applied for and obtained the PPP loan and extended its retail store hours. "It's given local people an outlet," Adam says. "We also distribute three types of small boats from England, and they are just flying off the shelves."

And while Zim was carving out a new market niche, Matt Leduc, a broker with Latitude Yachts in Jamestown, was spending time talking people out of buying boats.

Latitude was selling so many boats due to pandemic-driven demand that by July they had little inventory left, and what was available for purchase wasn't necessarily the best option for clients. Leduc found himself telling potential customers to wait until inventory built back up so options for purchase would be greater and more appropriate for their desires.

Even with the loss of several months of business, by mid-summer, Latitude's sales were even with 2019, "which was a very good year," Leduc says.

The rush to buy reminds Leduc of the aftermath of the terrorist attacks of September 2001. "After 9/11 a lot of people spent money on boats," he says. "People were looking for a distraction and they got out on the water. It's how people react when stress is high. They spend money on something that will bring family and friends together."

Challenges, Choices

Boat buying solves one challenge for consumers during COVID-19 and introduces another: dockage.

According to 2019 statistics from the National Marine Manufacturers Association, there are nearly 39,000 boats and personal watercraft registered in Rhode Island.

Safe Harbor Marinas, with eight facilities and 375 employees in Rhode Island, provides dockage for about 3,000, according to Tim Moll, regional vice president.

The company's rigorous adherence to pandemic-induced regulations, and time spent counseling frustrated and confused boat owners, was stressful for staff and customers. "This has been a growing experience," Moll says, "we are still being very careful every single day. Our managers deserve a medal for the ways they've risen to this challenge."

Early on, as Safe Harbor attempted to get a handle on the situation, its findings were roughly in line with the RIMTA member survey: On average, 44% of Safe Harbor's Rhode Island customers were from out of state or out of country, according to Moll.

"These boats are very much like second homes for the people who own them," he says. "They are a substantial investment, and people are passionate about the time they spend on them. In April, people were understandably upset because they simply couldn't get to their boats. By mid-May, it started to open up. In the end, it all worked out. For every person who didn't want to put their boat in the water, there was someone who wanted that slot."

In business in North Kingstown since 1983, the Lightship Group, a marine fabricator and repairer whose contracts include state and federal government military and research vessels, was in a unique position. Designated as essential, Lightship staff were already working seven-day weeks before the lockdown, with some of the 23 employees traveling to jobs in Boston and Philadelphia.

Once Lightship understood out-of-state travel requirements, the company laid in additional protocols: It reduced the number of employees it dispatched from six to two, had them work alone at remote jobsites, and upon their return, set them up at work stations distant from each other at the company's 10,000-square-foot shop in Davisville. Administrative workers at the North Kingstown headquarters worked from home.

"This whole working-from-home thing, which I did not like, really shocked me," says company President Thomas F. Alexander. "I thought, we're not going to get anything done. Now everybody's working from home, we're getting our work done. My apprehensions didn't pan out. We recognize that our administrative people can work from home and still be efficient. We have incorporated Zoom into our process."

"I have to say, everybody's stepped up. I've actually had several employees come to me and thank me for keeping them working throughout this," Alexander adds.

Fun Isn't Cancelled

Normally, a summer afternoon trek to the second-floor bar and open-air lounge of the Newport Yacht Club rewards visitors with panoramic views of the harbor, cool drinks, and a steady flow of fresh, self-serve popcorn.

Now a visitor's first stop is for a temperature check; the upstairs lounge is shut down. It's replaced by two venues: "Thames Street West," club steward Rudy Borgueta's nickname for the tables and chairs set out at required distances in the parking lot, and a similar setup in the main meeting room on the club's ground level. Popcorn is bagged by staff and set out. The showers and laundry room are also shut down, though launch service to and from members' boats has resumed.

While many of the club's signature racing events were also cancelled, some racing and children's camps resumed in July in limited form.

"It's painful because we're known as a racing club," says Commodore Tom Rowe. "But if you talk to members, they appreciate that the club is looking out for their safety. People realize this and are starting to come back. Staff members are looking out for each other; members are looking out for other members and staff. That's an important improvement: People are looking out for each other."

On the other end of the harbor, at historic Fort Adams, Sail Newport turned a coping mechanism into a branding strategy. "Quaranteaming" was the term coined by staff to encourage households to get back out on the water once lockdown ended. With approval from DEM and DBR, the staff devised extensive safety guidelines and organized sold-out events for parents and children from June through early July. By late summer, the center was mostly back to its full racing event schedule, staggered and without social gatherings.

"We've discovered what it means to be adaptable, nimble, and looking at opportunities instead of lamenting what we can't do," says Executive Director Brad Read. "We don't know what tomorrow looks like, but we're doing what we can. Everyone is being diligent about face coverings, whether they're in the youth

Photograph by Onne van der Wal

or adult programs. They're paying attention and understanding it's a new dynamic. We're still making the experience amazing even if you have face coverings on. We're just doing it in a slightly different way."

For the Ocean State's day cruise and term charter businesses, and those who earn their livelihood in them, the fallout runs to now-familiar extremes, and solutions have come from both customers and captains. Overall, charter operations went from standstill to fully booked status as the state reopened.

"It's wacky," says Sue Gearan, owner of Global Yacht Concierge. "I'm getting calls I'd never have gotten before, for birthdays, graduations, you name it, everybody wants to get their families and close groups out on the water for the day."

Landlubbers who previously would have booked restaurants and rooms to mark a special occasion are taking them to the water, and captains and crews can accommodate them with custom-designed face masks and disposable utensils.

Gearan and other RI-based brokers, which also book one- and two-week crewed charters globally, lost contracts and income when clients canceled or postponed trips in the Mediterranean and in the Caribbean. They scrambled to rebook some of the trips in summer 2020 closer to home. That worked if boats had made it north before U.S. Customs closed entry, which it did temporarily in New England, and if clients carried out plans to fly, charter a private flight, or drive to the port of embarkation.

"It's been difficult and complicated," says charter broker Jennifer Saia. "I had two families who were going to Greece who are now doing southeastern New England. They would have never done southeastern New England before this. Why go around the world when you haven't seen the U.S.? Help the local economy. As for tomorrow, we're all in the I-don't-know boat!"

Crystal Ball

By the end of July, temperatures were sizzling. Displeased with people "partying too much" and an uptick in coronavirus cases, Gov. Gina Raimondo extended reopening's phase three, which was set to expire on July 29, for another 30 days, and reduced social gathering limits from 25 people to 15 people. Virus spread was linked to house parties, baby showers, backyard birthday parties, pool parties, sports banquets—and boat parties.

For those in the marine trades who were working hard to follow the rules, it was too soon to tell what the future would bring or what course the virus would take. But in such an unprecedented time, one thing is clear, at least for Rhode Islander Jennifer Drake-Bohnwagner, another landlubber who joined Freedom Boat Club because her summer 2020 honeymoon in Europe was cancelled. "If this pandemic has taught us anything," she says, "it's that you only live once, and we really wanted to share this boating experience with our family and friends."


I
RI

King of the Bay

by **Ellen Liberman** Photographs by **Jesse Burke**

TWO ROCKS, ONE CLAM. QUAHOGGER JODY KING bags the latter, tosses the former, and repositions his rake. His features gather themselves into a mask of fierce concentration as he bears down on the T-handle until the teeth of the metal basket catch the soft underbelly of Narragansett Bay. King rapidly whips the rake until he hears something hard strike the cage. Three rocks.

King has devoted this July afternoon to teaching a small group of academics and environmental officials, including Rhode Island Department of Environmental Management (DEM) Director Janet Coit, how to clam. The class fans out along the shoreline of Wickford Town Beach, thigh-deep in water the color of olives and bathtub warm. Triumphal cries ring out, while

Jody King has been quahogging in Narragansett Bay for over 30 years.

King battles his rake. The ratio favors rocks over clams, and every third try, the old ash handle slips out of the basket's sleeve. Finally, it snaps in two.

"Rock soup!" He grins.

It wasn't his best day on the bay, but, in truth, every day is King's best day on the bay.

"Look at the view out of my office window!" he says ashore later, with a sweep of his hand across a Turneresque sky of gray-smudged clouds. "I was born to clam!"

In 2019, 21 million quahogs, worth $5.35 million, were landed in Rhode Island. By his estimate, King raked in a quarter of a million of them. A son of Warwick, he harvested his first clam off Rocky Point at 8 years old. The idyllic summers of his childhood were spent picnicking there with his parents, Richard and Shirley King, who armed their four sons with buckets and rakes and the following instructions:

"'Don't go past that street, don't go past that rock, and don't come back until the buckets are full,'" he recalls. "You got to play in the mud and the dirt, and you got to bring things home. It was like show and tell. And, there was the realization that I could catch these things. But never in my wildest dreams did I think it would become my life."

Clams paid his mortgage. They literally re-shaped a skinny kid into a smooth-muscled man with a strong back. They taught him an appreciation for marine ecology, and they made him into a teacher who passed along his knowledge to others. In the last nine years, well over 1,500 Rhode Islanders and vacationers have taken DEM's popular Come Clam with Me class, taught by King several times each summer.

"Jody puts his heart and soul into everything he does," says Kim Sullivan, the department's principal fisheries biologist and aquatic resource education coordinator. The lesson includes the nuts and bolts of shellfish regulations, an explanation of the hard-shell clam's importance to the ecosystem, and a tutorial on bull-raking. King also shares some of his life story and his family quahog recipes. He challenges his students to give them a try—and send pictures. They do, says Sullivan.

"There have been countless rave reviews. He cares about the participants, and he cares about the critters—it's not just a teaching job to him," she says. "I use this program to enhance the public's understanding of a public resource. I pay Jody to help create stewards of the bay. His enthusiasm really resonates and gets that stewardship across. He is one of the state's best clam-bassadors."

Unlike many quahoggers, King had no grandfather, uncle, or cousin to induct him into the solitary fraternity of commercial shellfishermen. His dad, an African American from South Carolina, was a chef, and his mother was a homemaker of Swedish extraction who grew up in East Providence. The Kings worked hard to keep Jody and his three younger brothers Tracy, Dana, and Lonnie, constructively occupied with church, basketball, and Boy Scouts. (Jody and Lonnie became Eagle Scouts.) He remembers a burning ambition to fill his sash with enough merit badges to resemble a highly decorated war hero. But his high school years were aimless; he didn't plan on college.

"I was a letterman. I played in the chess club. I was a geek, but I didn't think I was smart enough, good enough," he recalls. His Pilgrim High School guidance counselor disagreed, connecting King to the University of Rhode Island Talent Development program, which renewed his self-confidence and prepared him for college-level work. King graduated in 1984 with a degree in agricultural resource technology. He spent his restless 20s serving a four-year enlistment with the U.S. Marines, a stint as an office temp in Boston and one as a longshoreman, and two periods of cooking with his father, who ran the kitchen at the Metropolitan Life headquarters in Warwick. He expected to succeed his father as manager when he retired. But that fell through.

One day, he went quahogging with a friend.

"I watched him make $200 in four hours, and I thought, 'Wow, if I can make $100, this cannot be all that hard,'" he says. "I bought a boat, a license, and a motor, and in one year, I was divorced. With me starting a new business and not doing well—it just added to the stress. The learning curve was brutal. I would follow other guys, and I would dig right around [them] and ask questions."

It took two years for King to find good hunting grounds, to read the wind and the tides, and to master the technique of digging from a boat with a 40-foot, long-handled rake.

"The handle is hollow—like a megaphone in your hand," he explains. "As the basket gets fuller, you can hear sounds of something hard—and that's the sound of money."

"He's got a computer going in his head," says his wife Liana. "How many clams do I need to pay this bill, that bill. He's subtracting quahogs all day long."

King smiles. "And eventually, I get a few for myself."

King is also a high-profile advocate, serving as vice president of the Rhode Island Shellfisherman's Association and as a two-term member of the Rhode Island Marine Fisheries Council.

Bob Ballou, longtime assistant to the DEM director, marvels at King's ability to charm top policymakers aboard his boat, pointing to a scheduled June 2016 clamming trip with Coit, Gov. Gina Raimondo, and then-Warwick Mayor Avedisian.

"The DEM director, and the mayor, and the governor all taking the time to join a bullraker on his small

skiff? That's powerful stuff," Ballou says. "I think Jody's the only human being on Earth who can pull something like that off. "

Clamming class participants head out to dig for quahogs at Wickford Town Beach.

A Rhode Island Tragedy

On the edge of Warwick City Hall grounds is a brick circle around a granite oval bearing the etched portraits of 10 men and women who lost their lives in the Station nightclub fire. City hall occupies an island in Apponaug, surrounded by a swift current of traffic, coursing through a succession of rotaries. The memorial in its shadow is a small work of art, tastefully landscaped with six curved benches that invite reflection—and seemingly, an unappreciated blur to the drivers who rush past.

This is another spot where Rhode Island and Jody King have made a mark on each other.

On February 20, 2003, The Station nightclub was packed beyond capacity, with hundreds of hard-rocking fans of the band Great White. At 11 p.m., the band's tour manager set off fireworks to herald the headliner's entrance. Almost immediately, they ignited the acoustic foam in the ceiling tile and walls. Thick clouds of toxic black smoke and heat drove everybody to the exit. Only 132 people escaped unharmed, 230 were injured, and eventually, 100 died. King's younger brother Tracy, a tractor trailer trucker who was working club security that night and had gone back into the burning building to rescue others, was among them.

"I got there at 11:30 to check on Tracy, and I saw the worst of the worst," he recalls.

Chaos, bodies, ambulances, followed by hearses. In the following days, as the death toll rose, families of the victims gathered at the Crowne Plaza Hotel looking for solace or information on the missing. King was there, too, walking his shaggy shepherd-collie-Lab mix, Princess, around and around the ballroom, as a therapy animal.

"After my brother passed, Jody had to go to so many wakes," recalls his youngest brother Lonnie, now a Dallas-based jet pilot. For Jody, the tragedy created a family of mourners, and once he attended the wake for one Warwick victim, he felt driven to offer his condolences to as many others as he could. "But [Jody] made sure that I, my mom, and my brother were taken care of. I had trouble going to a couple of them. He had to sit and deal with everything. I don't know how he did it. I would have lost my mind, but that's Jody to a T."

The Station fire was fourth deadliest nightclub fire in U.S. history and one of the state's most traumatic events in recent history. Blame for the conditions

that led to the conflagration—cladding the interior in flammable materials, the overcrowding, the pyrotechnics—fell heavily on club owners Jeffrey and Michael Derderian. Both pled no contest to 100 counts of involuntary manslaughter, and under a plea agreement, Michael was sentenced to four years in prison. Jeffrey received three years' probation and 500 hours of community service. King was one of the few who reached out to the Derderians, who had been his classmates, but not really friends.

"He wasn't looking to crucify us because of his brother. He was one of the few who defended us. We were portrayed as demons," says Michael. "He wanted to know the real story, and we took him through the whole series of events. From that point forward he became very involved in the tragedy. We tried to make something good from something bad."

King threw himself into multiple memorial efforts.

In 2007, he and the Derderians co-founded the Station Education Fund, which raised millions in scholarships to benefit the 76 children who lost one or both parents in the fire—three of whom were Tracy's young sons. In 2012, he launched the Warwick Station Nightclub Memorial Fund to pay tribute to the Warwick victims.

Warwick Beacon publisher John Howell remembers the day King asked if the paper would run an article about it.

"I started asking him questions, and it was clear he didn't have a master plan. He was planting the seed, but he didn't know how to plant it or how to make it grow," Howell says.

Howell mentored King in forming a board, finding an architect and a site, and setting up a tax-exempt nonprofit. Jody, though, had his own way of getting things done. When they needed some asphalt for the project, King said he'd take care of it, and in short order, Cardi Construction was on board.

"He said, 'All it takes is a few clams.' He was bringing a bushel of little necks to these people in appreciation for what they were doing for the project," Howell chuckles. "He always has a lot of clams to play around with."

On October 20, 2012, nine years after he first approached Avedisian about the idea, then-Gov. Lincoln Chafee and former Gov. Donald Carcieri dedicated the newly constructed memorial.

"Losing Tracy was a big deal," King says. "But in losing him, I've learned to live life to the fullest."

The 5%

One of King's most vivid mental images is of his father, spread-eagled across the family '68 VW.

"We were on the way home from basketball, about three minutes from the house. All of a sudden, the car is surrounded by a half dozen cops, and two pulled my father out of the car and threw him over the hood. Their guns were drawn—talk about racial profiling. A store up the street had been burglarized. They pulled us out and dumped all of our basketball bags—you can imagine how that smelled. They left us there in the middle of the street and they said nothing," King recalls. "I can't imagine what my father wanted to do, but couldn't because we were little kids, and he was a man. He just said, 'They must have made a mistake."

King doesn't tell this life story to his clamming classes. Why should he?

"Ninety-five percent of my life has been amazing," he says. "I don't want to dwell on the 5%. The 5% doesn't define me."

But it has gotten harder to ignore. King grew up protected in a white community who knew and accepted his interracial family. But as he aged and moved beyond Lakewood, he began to understand that his

skin color meant that some people would dislike him on sight, and others would casually use it as a weapon against him. For the most part, he practiced what his father always preached: turn your cheek and live another day.

John Calicchia, King's URI roommate and close friend, says that King was adept at flipping on its head the racial dynamic that oppresses so much of American life.

"I remember walking into a room where everyone was white, and he caught a couple of glances. He raises his hand and says 'Hi! I'm Jody and I'm the token black man for this event!' It caught them off-guard and reduced all the tension in the room. He went around and shook everybody's hand," says Calicchia, now a child psychologist and professor at Bridgewater State University. "It was pretty amazing. He knew how to defuse situations with that I'm-going-to-kill-you-with-kindness-until-you-understand-who-I-am."

But, on the water, King says, tolerance can be perceived as weakness.

"Some people will exploit that, and I couldn't be the soft guy I was made to be growing up," he says. "There were times guys would prejudice me, use the n-word on marine radio. I had to make my mark out here, and if someone used the n-word, I would come after you, bow to gunnel."

"Most people don't know that his temper can flare if he's wronged," his wife says. But that's the five percent. And King never wanted to make it part of his presentations—until the May 25 homicide of George Floyd, who was asphyxiated by a white policeman on a Minneapolis street in full view of other officers and onlookers.

"We watched a lynching live, and it had an effect on me—and the world."

And it has compelled him to have more candid conversations with his students. So, in the shade of an oak on the Wickford Town Beach, he talks about his first car, a 1972 yellow Plymouth Duster. King named it Darlene, after a high-school friend who whacked a bully with a tennis racket after he directed racial slurs at the pair in a Pilgrim hallway. (They all went to the principal's office.)

That's only five percent of the afternoon. Everyone's there to learn how to catch clams from a veteran quahogger. At 60, King is part of a graying and shrinking cohort. When he started in 1989, there were many more diggers, and seven times as many quahogs—153 million—were harvested that year. He isn't sure how much longer he'll be out there, but he regularly consults an aspirational photo on his phone of a colleague who still bullrakes in his 90s.

"There's only two people in charge: God and Mother Nature. My body will tell me," he says.

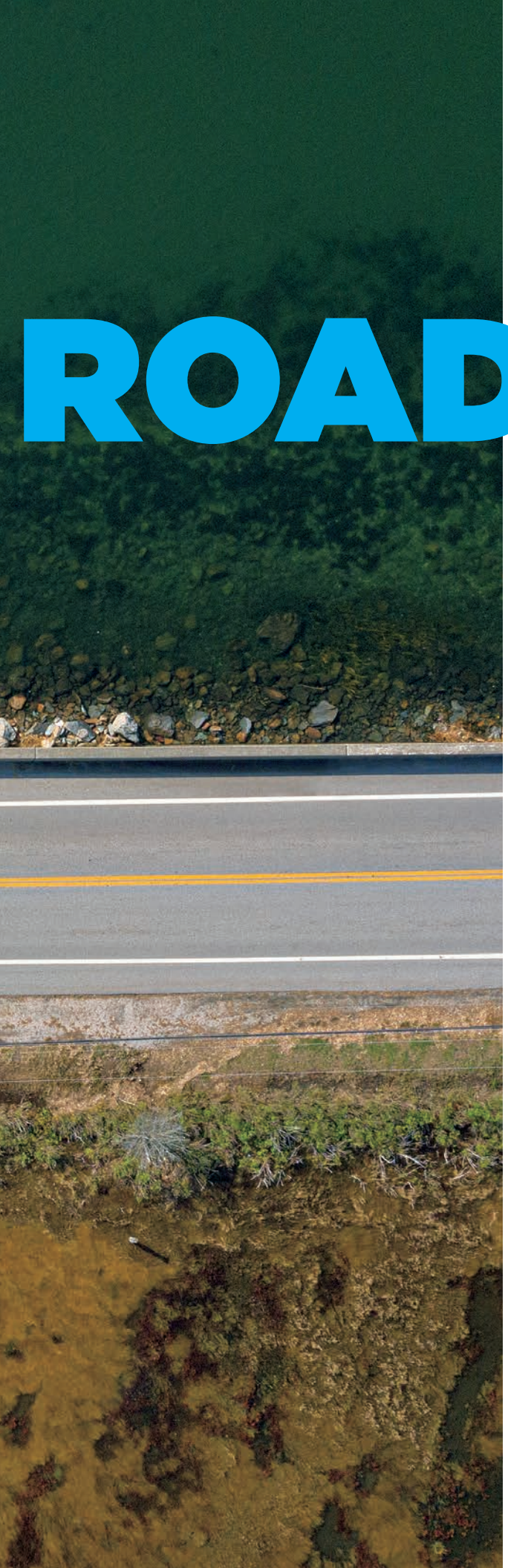
In the meantime, Jody King is proud that he's pulled a living out of the bay—and bits of history too: round-bottomed ballast bottles and centuries-old clay pipes displayed in his Oakland Beach home. And once, a terrified Maltese. (True story: in August 2018, King was crewing a race in Greenwich Bay, when he saw what looked like a mop floating by. It turned out to be a dog that had fallen off another boat. King persuaded the captain to turn around the 40-foot sailboat to scoop it up. When they could not get close enough, King broke every safety rule he ever knew, diving off a moving boat with no life jacket. He held the dog and treaded water for 15 minutes before the crew got close enough to pull them out.)

"I'm a piece worker. I'll never be a millionaire," he says. "But a quahogger is a respected profession in Rhode Island, and I love—love—my job."

BUILDING THE HIGH

by **Susan Kennedy**

Photograph by **Monica Allard Cox**



ROAD

Roadwork planning can be complicated, requiring careful coordination of state and local government efforts and financial and staff resources. Resiliency building, or preparing roads to withstand flooding and erosion, takes the complexity to a new level.

AS ANYONE WHO HAS LOST A TIRE TO A POTHOLE knows, the quality of public roads and related infrastructure, like bridges, is a perennial concern, one that raises loud complaints from taxpayers whenever regular travel is impeded or difficult. And the fact that roads are a circulatory system representing the lifeblood of communities is never far from the minds of transportation officials tasked with keeping it going.

About half of the $7 billion for the state's 10-year (2018-2027) transportation project package is slated to repair or enhance roads and bridges, which have seen increased vehicular pressure brought on by continued development. And with the Rhode Island Coastal Resources Management Council expecting that the state will be inundated with at least 9 feet of sea level rise by 2100, the potential for widespread road flooding and erosion in coastal communities adds to the stress on this infrastructure.

"I call this a predicament, as opposed to a problem. A problem is something that can be solved, but we're not going to solve sea level rise or flooding. A predicament is something you can address, and that's the way we have to consider this," says Gary Crosby, town planner for Portsmouth, where the neighborhoods of Common Fence Point and Island Park, as well as the Melville marine industrial area, already see flooding from sunny-day king tides as well as from increasingly severe storms.

Conley Zani, of Portsmouth's Common Fence Point—a peninsula on Narragansett Bay—vividly recalls the stormy weather that accompanied her move to the neighborhood in 2009. "I looked out at this rising water and just thought, 'Uh oh … this is something that we're clearly going to have to be thinking about.'"

Zani, who is among those active in Common Fence Point resiliency efforts, says she has educated herself so she can bring others along. "I see it as a mission I'm on, because if we as neighbors can be informed, then we can help each other plan, we can deal with this, we can have smart solutions."

The Rhode Island Infrastructure Bank (RIIB) works with municipalities to finance infrastructure improvements, increasingly weaving resiliency and green bonds into financing options. Through its Municipal Resilience Program (MRP), participating cities and towns are awarded action grant funds for a variety of adaptation projects, including road and infrastructure work. Also,

since 2015, the Municipal Road and Bridge discounted borrowing program has lent $106.7 million, often for local projects that answer stormwater runoff and resiliency needs.

Portsmouth secured funding from RIIB for three separate projects from the MRP, including an effort to widen and improve drainage for the narrow entrance of Common Fence Point. "If the community needs to evacuate, we want to be sure this area is as wide and clear of flooding as possible," says Crosby. "It's very important for safety."

The Infrastructure Bank awarded $1 million in action grants to participating municipalities in 2019 and has committed another $1 million for implementation-ready resilience projects in 2020. "The municipal response to the program has been fantastic since day one," says RIIB Director of Stormwater and Resilience Shaun O'Rourke. "The need is there, and the communities are showing they've done their homework and are ready to implement."

Similarly, the Rhode Island Department of Transportation's (RIDOT) Stormwater Management Program provides a conduit for communities to work with the state to plan, fund, and carry out resiliency components for stormwater management projects. The program's key focus is ensuring municipalities meet state water quality standards, with resiliency building coming in as a bonus. The program is budgeted to spend more than $110 million over a decade on water quality improvements statewide, and community stormwater management projects will be part of this effort. "Improving water quality is the goal, but it's often cost-effective and makes sense to factor in other issues related to flooding, and address as many problems as you can with a single project," says Brian Moore, administrator of the RIDOT Office of Stormwater Management.

"Bundling," is how Diane Williamson, director of community development for Bristol, puts it. "I think the days of designing a project for one aim or one goal are over. The way we work now is to achieve multiple goals with each and every project, and resiliency often rises to the top."

Bundling could also describe how towns work together: "We're a close-knit group, and our issues with water are shared, so the towns turn to each other, and I think that's a good thing," says Kate Michaud, town manager for Warren. "I also think a lot about how we can bring the community into understanding the issues we face with water. If we have an area with several resiliency projects taking place, that's an opportunity to share it, so people can be more aware."

Warren's Keri Cronin, president of the town council, says public participation is going to be more important going forward, if coastal communities are to adapt effectively. "Flooding and sea level rise is absolutely a community issue right now, but it's just not perceived or understood by many as a critical one."

Cronin has a personal reason to appreciate this threat; with her mother, she also owns and operates a Water Street clothing boutique that is vulnerable to flooding. "If you stop and think about Warren, you realize just how much of our environment here is water," she says. "This is a place that has a long history of always having to adjust to the water, and we're going to have to do it more frequently."

Even while strides are being made to layer resiliency planning into roadwork efforts, growing pains are still felt within the Rhode Island planning community, as the struggle to address increasing road flooding with limited financial resources and manpower continues.

Consider, for example, New Shoreham's recent grappling with the future of Corn Neck Road, a two-way state road on the eastern coast of Block Island that connects its northern and southern sections. It serves as an emergency evacuation route and is critical for police, fire, and rescue work. It's also prone to flooding from storms, tides, and sea level rise.

The town, with federal funds, secured a feasibility study so it could weigh options for fortifying the road. Two options—one elevating the road, the other partially relocating it—would, to varying degrees, make the road less flood prone. These estimated multi-million-dollar efforts, while providing some protection for the roadway, wouldn't ultimately be flood proof in the long run. The third option calls for a partial bridge structure, and could provide a solid and longer lasting level of protection, but at a steep price—a projected $77 million.

Ultimately, the town chose to go with a portion of one of the more moderate options—elevating a segment of the road. "Cost was certainly a factor when selecting the preferred alternative," says Alison Ring, New Shoreham town planner and GIS manager, noting that "additional studies are likely to be required as the town moves forward with the selected alternative from concept to preliminary design."

State resources are also stretched thin. RIDOT, tasked with maintaining the integrity and safety of state roads, is already working at full throttle to bring the Rhode Island's 1,178 bridges into compliance with federal minimum bridge sufficiency standards, and to have the bulk of this done by 2025. Couple this with mounting requests from municipalities—both coastal and inland—for help with flood-plagued state roads, and the result is longer waits for roadwork. Barrington, for instance, eyes Wampanaug Trail (Route 114) as a flooding concern; similarly, Bristol awaits improvements for Poppasquash Road, Portsmouth for Park Avenue, and Warren for Market Street (Route 136).

High tide flooding at this parking lot in Wickford Village has become so frequent there are often cones out.
Photo by Tom Sgouros, courtesy of MyCoast

Warren's Michaud understands the wait, but she says she needs to be vigilant on behalf of the town and will continue to press for the work to be done. "It is a big issue, because when you have a community on the coast, these are roads that people are living on and working on."

Crosby, of Portsmouth, agrees that the pressure is on for the state to address its flooding roadways. "Let's just say I have had fish flopping up and onto the road when it's flooded."

RIDOT acknowledges the concern of the community planners for road flooding issues tied to sea level rise and storm surge and urges continued partnership —and patience. "We hear them, and we get it," says RIDOT Policy Director Pamela Cotter. "Resiliency is definitely an issue we are going to continue to need to work on together, for the long haul."

Indeed, as a road's flooding increases in the future, decisionmakers will likely be faced with potentially tough choices about whether to invest in keeping the road usable or to relocate or even abandon it. Read Porter, senior staff attorney at the Marine Affairs Institute at Roger Williams University School of Law and the Rhode Island Sea Grant Legal Program, has studied the legal ramifications of chronic road flooding. "Responding to coastal road flooding requires communities to balance the value that people place on roads to keep their lives moving against the cost to government of keeping them open, often for the benefit of just a few residents," he says. "From a legal standpoint, there is no get-out-of-jail-free option, so these decisions will become more difficult over time. We're really only at the beginning of this process."

IN TIMES OF HARDSHIP, SAVED BY THE SEA

by **Sarah Schumann**

Portrait by **Jesse Burke**

SEVERAL YEARS AGO, A WOMAN APPROACHED MY table as I offered seafood for sale at a Providence farmers market. Instead of gravitating towards the gleaming fillets of striped bass and the pearly white scallop meats at the front of the display, her gaze settled on a pair of whole scup lingering in obscurity at the back of the ice tray.

"Scup!" she exclaimed, as if seeing an old friend again after a long time. Then she explained: a few years earlier, she and her husband, both performing artists, were going through a gap between gigs. With their dollars running out, they turned to a place where they could fill their plates for free: Narragansett Bay.

"We caught and ate scup every night to get us through," she said. "I still find scup scales under the fridge and in the cupboards. Those scales get everywhere, and they never go away!"

This couple's story is not unique. Narragansett Bay, its tributaries, and Rhode Island's ocean waters have unfurled their generous social safety net generation after generation for those in need. Their bright beaches and shimmery bayscapes—a space of carefree entertainment in boom times—double as something more essential in lean times: an aquatic food pantry, an underwater victory garden, a floating work relief program.

In the midst of today's global coronavirus pandemic, many Rhode Islanders are navigating the most economically uncertain time in living memory. It is a comfort to know that the sea has saved many before. Can it do so again?

Gifts of the Sea and the Land

For the original inhabitants of the land that is now Rhode Island, meals were not packaged or bought; they sprinted through the woods, swam through the creeks, and flew through the air.

"We always utilized the gifts of the sea and the land," recounts Lorén Spears, who is the executive director of Tomaquag Museum, as well as an educator, activist, author, artist, and former councilwoman of the Narragansett Indian Tribe.

"Prior to European arrival, we were thriving. Our ancestors were all using resources in their season. There wasn't freezing, but we did preserve things through storing food in caches and drying and preserving: salmon, bluefish, a myriad of other saltwater fish, cod, sturgeon, whales, and things of that nature."

After European conquest, Spears says, using the resources of the land and sea remained vital—not only for nutrition, but increasingly for cultural survival as well.

Lorén Spears, executive director of the Tomaquag Museum, says that the poor fared better than the wealthy during the Great Depression because they were used to harvesting their own food from the land and the water.

"As indigenous people, it's important to be connected to the land and respect the gift of the land and waters, and make sure that the next generation knows how to hunt and fish and make things," Spears explains. "Think of the Great Depression. Indigenous people weren't necessarily affected by that the way that others were. We were used to living off the land. I remember hearing from my grandmother that people who were poor fared better than those who were wealthy, because they were used to living off the land and processing their harvest and their catch."

The need for these skills is becoming apparent again today, Spears adds. "Now we have food deserts and food insecurities that are creeping up into the middle class. People who have those skills are going to go out and harvest wild edibles and live from the land and hunt, fish, or gather their food."

Salvation, Swimming Upstream

For farming families in the early republic, winter was a difficult time. Stored foods from the previous summer ran low, and cooks had to stretch their meager reserves. But each April brought sweet relief: a protein-packed replenishment coursing up the rivers in the form of salmon, alewives, shad, and blueback herring, all heeding a seasonal cue to sprint from the sea to their freshwater spawning grounds.

Just as George Washington's troops were purportedly saved by shad after months of starvation at Valley Forge, many early New Englanders survived thanks to the providential timing of the region's anadromous fish cycles. Along the Blackstone, Pawtuxet, and Pawcatuck rivers, residents fished not only to feed themselves but also to feed their crops. Dense nutrients incorporated in these fishes' bodies while feasting at sea gave a boost to the area's sandy soils and helped ensure ample crop yields to feed the community.

Given their nutritional dependence on anadromous fish runs, it is no surprise that farming families faced off against pioneers of the Industrial Revolution over the construction of milldams to power factories. Unfortunately for these families, it was a losing battle.

Despite extolling the importance of anadromous fish runs in providing for "the poorer Sort of people," state authorities allowed industrial progress to proceed of its own accord. By the early 19th century, Rhode Island's once free-flowing rivers were splintered into fragments by milldams and waterwheels. Springtime salvation no longer came swimming upstream, and farming families lost a source of reliable protein.

The Mackerel Year

The summer of 1816 was like no other. Spring's lengthening days went dark, as a dry fog settled in over the fields and towns, reddening the sky and making sun-

spots visible to the naked eye. Snow fell in June, ice formed on ponds, and frost gripped the young crops. New Englanders who had food hoarded it, and everyone else scrambled to survive.

The cause of this apocalyptic weather was a volcano on Mount Tambora, Indonesia. Its eruption, which today still ranks as the most powerful volcanic eruption in recorded history, filled the Earth's atmosphere with ash and lowered temperatures across the globe.

New Englanders who lived through that nightmarish year called it the "Year without a Summer," the "Poverty Year," or "Eighteen Hundred and Froze to Death." But they also gave it a more appreciative name—the "Mackerel Year"—in honor of the fish that saved them.

"As harvest failure and famine forced New Englanders to look to coastal seas for sustenance, the only fish available in large quantities near commercial distribution centers was mackerel," a team of climate scientists at the University of Massachusetts at Amherst explained in a 2017 study.

Their research showed that alewives and shad—already diminished due to the damming of their spawning rivers—remained at sea in 1816 because freshwater temperatures were too frigid for them to migrate upriver. But marine-spawning fish like mackerel were more resilient. "[H]istorical records suggest that desperate people turned to mackerel in extremis because mackerel were available early and in great numbers when other species were not," the climate researchers concluded.

The effects of this switch were long-lasting. Fisheries infrastructure and markets were reconfigured for mackerel, and before long, this once overlooked fish had become an indispensable staple of the New England diet.

A Bay for All People

On October 24, 1929, a cataclysmic stock market crash slammed the door on the Roaring Twenties and shook the country to its core. In the decade that followed, countless Americans lost their savings, their jobs, and their homes. At the peak of this Great Depression, parts of Rhode Island saw unemployment rates surpassing 30%.

IT WAS EVERY AMERICAN'S DUTY TO CHOOSE FISH

Luckily for some, Narragansett Bay was undergoing a transformation in benthic ecology that would tilt in favor of the struggling lower and middle classes.

Ever since the Gilded Age of the late 19th century, the bay had been dominated by a constellation of privately owned leases held by prosperous "oyster barons." But by the 1920s, pollution, siltation, and starfish predation were making it harder for oyster companies to remain viable. Many chose to relinquish their leases. These areas, once off-limits for wild harvest fishing, reverted to the "free and common" fishery.

Without the restocking of "cultch," or oyster shell substrate, the previously ubiquitous oyster began to disappear from Narragansett Bay. In its place, a previously inconsequential species ascended in importance: the quahog.

By 1931, more than a thousand Rhode Islanders were employed in the harvest and selling of quahogs. This species swap could not have come at a better time for Rhode Island's struggling masses.

"Owing to the business depression," stated the Rhode Island Commissioners of Shell Fisheries in 1932, "the number of persons procuring shellfish from our shores have doubled in number, giving many employment. The Commissioners have opened certain closed areas for the taking of seed oysters for the purpose of transplanting by licensed fishermen, assisting them in obtaining a livelihood."

A Fighting Food

During World War I, the U.S. Department of Commerce published a bulletin encouraging the public to eat oysters during wartime, calling it "a duty to utilize this vast food resource as far as possible and save other foods of which there is a dearth." Then in World War II, the Office of War Information produced a poster with the words "Fish is fighting food."

The message of these publications was clear: during wartime, it was every American's patriotic duty to choose fish for dinner. However, fish is a finite resource, and seafood promoters realized that if all Americans were to eat more fish, fish supplies would soon become scarce. Therefore, they began encouraging Americans not only to eat more seafood, but also to eat a wider variety of it.

This message was most clearly delivered in "Food from the Sea: Fish and Shellfish of New England," a 1943 pamphlet published by naturalist Rachel Carson while employed by the U.S. Bureau of Fisheries:

> Millions of Americans are developing new wartime food habits, trying foods they once neglected,

The Scalloptown community in East Greenwich made their living from the bay for generations. September 14, 1930.
Photo courtesy of *The Providence Journal*

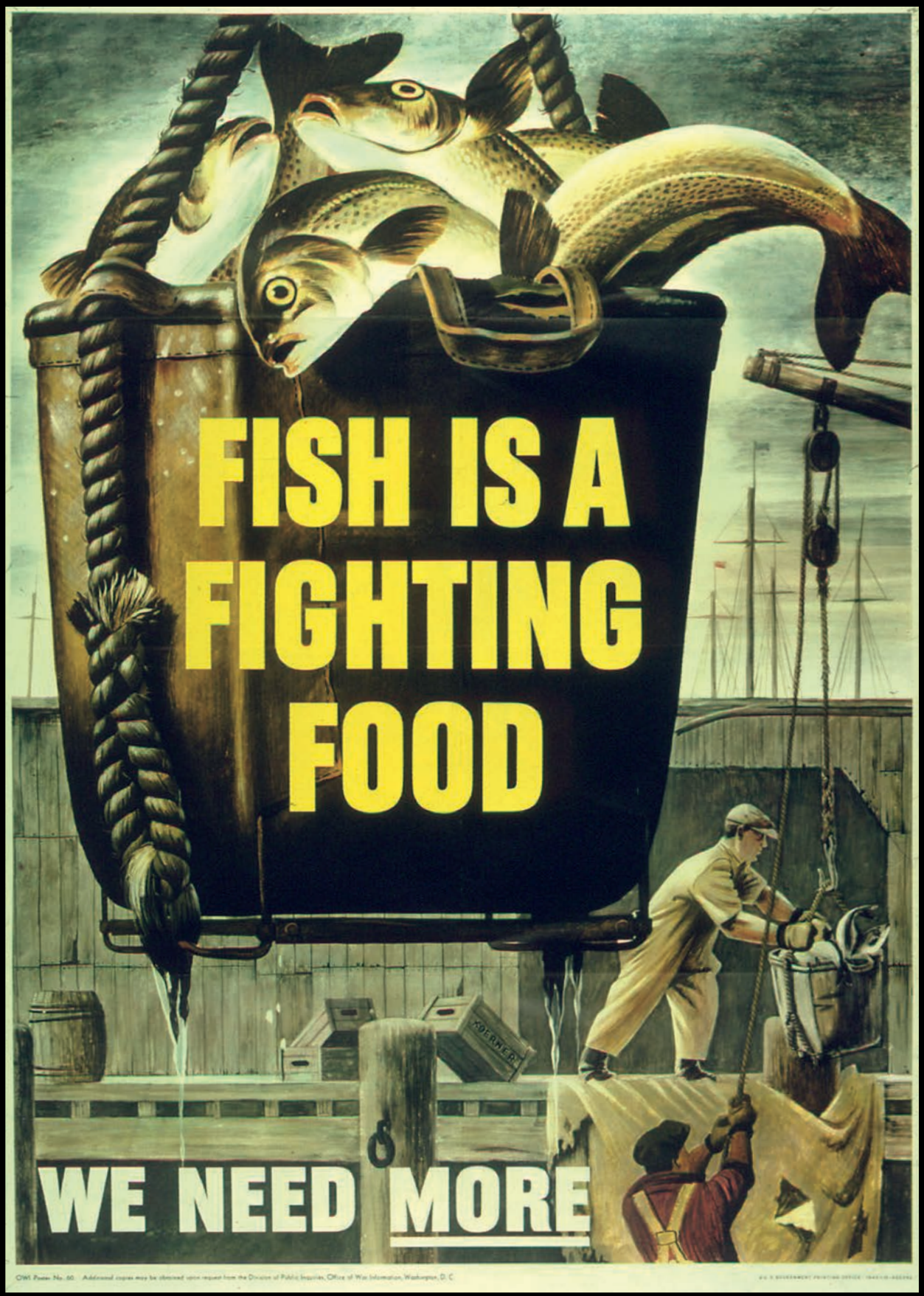
> turning to alternates for long familiar products. For every one of the ten fish or shellfish that make up more than four-fifths of New England's catch, there are seven species little known or utilized, many of which could provide tasty and nutritious foods. Turning to these under-utilized species will conserve food resources by lifting the burden of over-exploitation from such fishes as cod and haddock and will augment dwindling supplies of protein foods. Exploring the seafood markets for unfamiliar species rewards the housewife and her family with delightful taste surprises, for scarcely any other class of food offers so great a variety, so rich an opportunity for mealtime adventures.

The same year, the *Providence Evening Bulletin* chimed in with an article promoting the "neglected mussel, plentiful in these waters." This "victim of neglect," it proclaimed, "is easy to find, easy to catch, easy to cook and good to eat, which makes the neglect of this prolific, delicious shellfish a paradox at this time of food shortages and rationing."

The Bay's Gig Economy

In 1900, three out of five Rhode Island wage earners were employed in manufacturing. By 2000, fewer than one in six worked in industry. This transformation was gradual, and the state went through repeated waves of economic contraction: first in the 1920s-1950s, then in the 1970s, and again in the 1990s. Frequently, an exodus of textile makers and silver plating workers from the factories was matched by an influx of novice shellfishermen into Narragansett Bay.

"There are reasons to believe that the number of people who acquire a commercial [shellfish] handraking license is related to the state of the economy," stated a University of Rhode Island Cooperative Extension Service publication in 1981. "That is, the higher the rate of unemployment, the more licenses are bought. In this sense, the quahog industry performs an important function in the state's economy."



OWI Poster No. 60. Additional copies may be obtained upon request from the Division of Public Inquiries, Office of War Information, Washington, D. C.

While many of those who found temporary economic relief in shellfishing were glad when another option became available, others found their life's true calling in the bay's waters. Steve DePetrillo is one of them.

"Forty-two years ago my wife was pregnant with our first child," DePetrillo recalls. "I had just finished college, and there were no jobs. A friend told me that you could make a hundred dollars a day digging quahogs on the bay. I borrowed some money and bought a wooden skiff and an old outboard … I was only going to fish until something better came along. It was a temporary situation. But a few years later, I was sitting on my skiff on a beautiful summer day eating my lunch, when it came to me that this is what I was intended to do. I realized that I was made to work the bay. In 42 years, I've never had a day when I didn't want to work."

Angling for Dinner

In a country defined by sharp income inequality, some families struggle to make ends meet even during economic boom times. I asked Mike Bucko of the Rhode Island Department of Environmental Management (DEM) to reflect on the importance of fishing for food as an economic coping strategy in Rhode Island. Bucko heads the Recreational Information Program's Access Point Angler Intercept Survey, and before joining DEM, he owned a bait and tackle shop for 40 years.

"Rhode Island has always had a subset of individuals who fish for sustenance," Bucko allowed. But the story does not end there. "Anecdotally, it's more cultural [than economic]," he clarified. "If you are of Asian descent or Portuguese descent, those individuals seem to use the ocean as sustenance."

"More people fished for subsistence in the past," Bucko went on. "They would work in the mills on the weekdays, and on the weekends, they would spend their time fishing. Gather the fish, freeze it, and eat it. That was big between about 1965 and 1985. Then the demographics kind of changed. As they got older, it seemed like the younger kids didn't fish for subsistence as much. Habits change."

Ecosystems change, too. Bucko says that one reason that subsistence fishing may not be as prominent as it used to be is that there is no longer a reliable year-round supply of fish to catch. That's because of a sharp decline in local winter flounder populations that occurred in the 1990s due to habitat deterioration and climate change.

"Without winter flounder, it created this hole on the bookends of the season," Bucko said. After that, people began to think about fishing differently: not so much as a household provisioning strategy, and more as a recreational pastime. Now, he says, most of the subsistence anglers he encounters are immigrants, and their motivation is primarily cultural, rather than strictly economic.

During World War II, the U.S. government encouraged fishing companies to catch more fish in support of the war effort, as in this poster from 1943.

Saved by the Sea in 2020?

The COVID-19 crisis has altered daily life in Rhode Island just as suddenly and fundamentally as the Mount Tambora climate event, the Great Depression, and the 20th century's two World Wars. We have seen signs of economic breakdown: empty supermarket shelves, long lines at food banks, double-digit unemployment, and dire predictions about how long the pandemic and its economic effects could be with us.

In this uncertain atmosphere, are Rhode Islanders turning to the sea for support, as they have in the past?

Observers think so, in theory. "With the shelves being empty like they were in the stores not too long ago, fishing can be a main staple for [people], helping them get through the tough times," notes Russell Benn, captain of the Point Judith-based party boat Seven B's V.

But in practice, the picture is more complicated. Stay-at-home orders followed by capacity restrictions on charter and party boats have drastically limited the number of fishermen on each trip, Benn adds. Even shore angling has been curtailed, as a result of parking restrictions meant to prevent people from gathering in public places.

Although Mike Bucko senses an uptick in the number of first-time anglers on Rhode Island's shores this year, he says it's hard to tell how much of this activity is driven by economics and how much is driven by a need for fresh air and distraction during these stressful times.

Perhaps this distinction is immaterial. After all, whether the benefits are economic, nutritional, cultural, or psychological, everyone who fishes is, in some way, saved by the sea.

But as the vignettes in these pages show, the sea's capacity to catch us when we fall has diminished over the last 300 years. Climate change, habitat destruction, coastal gentrification, and the forgetting of sea-based food-ways: all have made it harder to use fish to fill the pot when dollars run short.

If the sea has saved people so many times, perhaps we should be doing a better job of saving it.

"At sea everything is a miracle," author Paul Greenberg wrote in *American Catch*. "All that the sea asks of us is that we be wise in our harvest, recognize the limits of its bounty, and protect the places where seafood wealth is born. In return the sea will feed us and make us smarter, healthier, and more resilient. Quite a covenant."

Photograph by Onne van der Wal

TAKE IT OUTSIDE

COVID-19, MENTAL HEALTH, AND THE GREAT OUTDOORS

by **Meredith Haas**

Being outside is good for you, according to research that shows a strong connection between time spent in nature and reduced stress, anxiety, and depression. The COVID-19 pandemic has driven more people to seek solace outdoors, but restrictions to limit crowds this past summer at Rhode Island beaches and parks tested the patience of visitors and staff alike, leading to questions for what's to come this winter.

AFTER AN EARLY SPRING SPENT STAYING CLOSE to home, taking only necessary trips to the grocery store and not seeing friends and family, many Rhode Islanders sought refuge outside as the weather grew nicer. As spring turned to summer and the virus remained a threat, travel restrictions, summer camp cancellations, and shuttered entertainment venues meant that more and more people were looking for local outdoor recreation opportunities.

Erika Moore of Jamestown says working from home during the pandemic encouraged her to walk more in her neighborhood, and even to take up jogging and running again.

"When I do see friends, the activities are all outdoor-recreational related: walks, hikes, swims, picnics," she says.

Outdoor retailers have seen a boom thanks to this new, or reignited, interest in being outside. Kayak sales were up 30% by mid-summer for the Wickford Kayak Centre.

"We sold out of entry-level boats, and for [four to six weeks] the least expensive thing we had on the floor was about $1,300," says owner Jeff Shapiro, explaining that the manufacturers had a difficult time keeping up with preexisting demand plus increased demands from the pandemic.

"Despite the stock issues, business has been up … it would've been up more if we had more entry-level product to sell."

At the height of sales and rental demands, 11 kayaks and two stand-up paddleboards were stolen from their rental lot. Only three of the kayaks and one of the paddleboards were recovered from Facebook Marketplace, putting a strain on already limited rentals.

"It's a challenging time," he says. "When you can't meet expectations, it's another thing they can't do."

Beating the Heat

A record hot summer further drove people to seek refuge at the beach. Despite eliminating half of all available parking spots at state beaches, the Rhode Island Department of Environmental Management (DEM) reported a 79% increase in visitors in June compared to last year and 50,000 more cars parked at state beach lots.

Caswell Cooke, president of the Misquamicut Business Association, says June was "a free-for-all ... we were flooded with people from everywhere. We're used to disasters like hurricanes where you have this big event and you just clean up. This is obviously different."

Many beach and park managers agree that June was the hardest month of the summer to manage due to new and varying restrictions and people being stir-crazy after spending months inside.

"They were the largest and most dense crowds I have ever seen on Westerly town beaches since I started working there in 2009," says Carl Critz, a lifeguard supervisor for Westerly Town Beach, describing this year's beach season. "Because the outdoors, by nature, is socially distant, people have taken to all forms of outdoor recreation to free themselves from everything from frustration about the situation to their own desire to get up and moving and get on with some semblance of a normal life. As a result, we've definitely seen an increase in beach traffic and with it, the frustration of managing tighter crowds when we are supposed to be more spread apart."

Part of that frustration stemmed from changes in parking restrictions put in place at state or town beaches.

"THEY WERE THE LARGEST AND MOST DENSE CROWDS I HAVE EVER SEEN ON WESTERLY TOWN BEACHES"

"The basic dynamic is when it's hot, people want to cool off, so they want to go to the water," says Mike Healy, DEM chief public affairs officer. "So, all across the state and not just at the state beaches, you have more people competing for access ... It's a competition for this limited space."

And that competition was further exacerbated when parking restrictions that were initially capped at 50% in the spring were raised to 75% in late June and then dropped to 25% in mid-July at two major state beaches, Misquamicut and Scarborough, in response to overcrowding. Those who couldn't find parking at the beach turned to municipal and private lots, says Critz.

"Those lots didn't enforce any restrictions whatsoever and filled to capacity, and in some cases, it was difficult for emergency vehicles to access those that might have been in trouble."

And parking restrictions didn't mean people restrictions, explains Kyle Cahoon, DEM regional manager who oversees Burlingame State Campground, Charlestown Breachway, East Beach, and Misquamicut State Beach.

"There've been days where there's certainly more than 25% capacity on the beach front, especially at high tide. People will park anywhere or even be dropped off because they can go to the beach no matter what, and we can't do anything about that because it's public access," he says.

Narragansett Town Beach used tally counters at each of their six admission sites to keep track of people entering and leaving the beach. Based on the 6-foot recommendation for social distancing, Narragansett Town Beach calculated roughly 100 square feet of beach space per person, which would allow for 3,500 people at high tide, as opposed to 10,000 in a regular season, according to Steve Wright, parks and recreation director for Narragansett.

"That's what our target was and where we kept it for most of the summer," he says. Wright added that a few days saw 4,000-5,000 visitors due to low tides allowing for more space, but parking was limited to residents only between 6 a.m. and 8 p.m. in order to maintain those numbers.

If people couldn't find a place to park at any one of the beach or private lots, some sought parking—legal and otherwise—in the surrounding communities. To curb that issue, communities throughout Washington County increased tow zones and parking tickets to as much as $150.

Other beach-goers would venture to places that aren't officially manned, like Camp Cronin Fishing Area or Black Point in Narragansett.

"These areas were getting packed first thing [in the morning]. Unless you kept tabs on it all morning,

keeping up with the ticketing so that new people see that these cars have tickets and you can't park there, people will continue to show up and there'll be 30 cars all lined up alongside the road in front of 'No Parking' signs," says Jake Maione, a DEM field officer, of Camp Cronin. "Probably five, maybe 10, of these cars are fishing. All the rest are using it as a beach, and there are no lifeguards on duty."

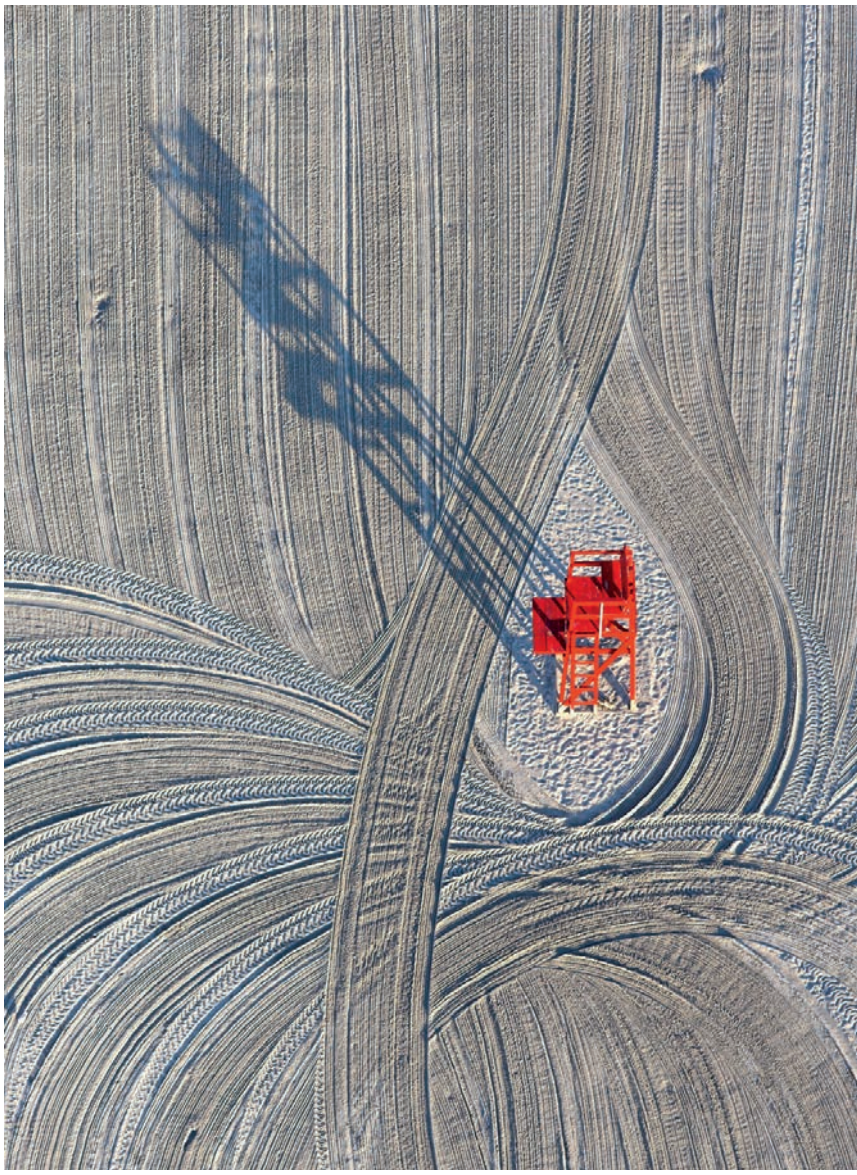
But parking and overcrowding at shoreline access areas and beaches weren't the only issues. Maione notes that DEM officers had to partake in more standard policing activity related to disorderly conduct rather than environmental or natural resource enforcement, and that people had been leaving their trash behind.

"Usually there's a trash pile right at the entrance ... It's a mound that's half the size of a car at times," says Maione. "We don't put trash receptacles on our fishing properties. It's carry out what you carry in, and obviously not everyone adheres to that ... Fish and Wildlife picked it up biweekly. Sometimes it's people picking up trash from the beach, trying to do the right thing, but then still leaving it on the pile."

Maione also added that it wasn't until mid-August that rangers and port-a-potties were placed in some of these unmanned areas that were receiving a high volume of visitors to better manage trash and human waste issues. So, if August looked bad, he says, "imagine what it was before."

Other town or state officials echoed similar frustrations.

"The amount of trash was unlike anything I've ever seen before," says Cooke. "It was almost like people forgot about manners or respect, and they just came here to trash our beach and left ... just all this stuff that's always been there, but it was amplified by COVID."



Photograph by Onne van der Wal

Short-Tempered

In his 44-year career, Wright says the 2020 season has the been most challenging.

"I'm sure like others, we pride ourselves on good public relations ... but this year, you'd think with COVID, people would be a little more patient, and it was just the opposite," he says.

"For the vast majority of people that I see, they are very much at wit's end, and they don't want to be told one more thing to do," says DEM's Cahoon. "One of the biggest challenges [is] people's attitudes. People's tolerances are very low right now for anything that is not what they want to do. Usually we can work with that, and people are generally understanding that you're just trying to do your job, but this year they're not quite as responsive."

On July 6, a mother and father that started out enjoying the day with their two kids on Scarborough Beach found themselves in handcuffs after refusing to move despite multiple requests from a lifeguard and beach manager to clear a path when a new lifeguard chair was added and then assaulting one of DEM's environmental police officers called to the scene, according to a DEM police report.

"It was a complete scene over moving a blanket 6 feet ... That typifies the dark side of behavior," says Healy, adding that the couple swore and yelled at beach staff, who are relatively young and trying to keep everyone on the beach safe. "We try to understand that COVID has knocked everyone for a loop. Everyone is anxious, everyone is uptight. COVID has really exposed all of our weaknesses as a society and culture."

Photograph by Cate Brown

Surfing spots have seen more traffic as people have sought socially distant outdoor recreation opportunities.

The pandemic has presented an existential threat that has caused an abrupt change in our daily lives, compounding anxiety and stress for everyone, says Mark Robbins, professor and chair of the psychology department at the University of Rhode Island, who specializes in anxiety, stress management, and depression, and how these translate into daily moods.

"With the pandemic, there's a threat to my existence, there's a threat to my family's or children's, or friends' existence. I can't see it, but I believe it's there—mostly—and suddenly the world is shut down to prevent people from dying. Some people will get it and not even know. Some people it'll kill, but we don't know who in advance except for age and preexisting conditions. So, if that isn't a recipe for stress and anxiety, I don't know what is," he says.

Robbins, who is a clinical psychologist by training, says that people don't need to be diagnosed with depression or anxiety to be affected by what is happening. His main area of research is health psychology, behavioral medicine, and behavior change. When the pandemic prompted lockdowns and travel restrictions in the spring, he was teaching an undergraduate course in health promotion and used the pandemic as a case study in behavior change in real time.

"[The pandemic] became an example of how talking about the conditions under which people change their behavior, how hard is that to do, and what are the experiences as a result of forced change versus unforced change," he says, adding that the politicization of the pandemic and other social issues have made it all the more reasonable to expect people to be short-tempered either because they're angry or because they're anxious.

Robbins points to the case of Brickley's Ice Cream that closed its Wakefield location in mid-July because of adult customers angrily confronting high school employees who, he says, were not in a position to handle that situation. Part of the issue, he says, was that the rules had changed.

"'Now I can't even sit down and eat my ice cream because I have to take my mask off to do it, and we're too close so we can't have social distancing,'" he says, as one who might feel aggrieved. "[They] want you to buy your ice cream and leave. 'And that's a violation of my rights,' was the reaction, and [they] got angry. They later apologized, but at that point it didn't matter. In the moment, we're all a little more on edge."

Mask wearing has been contentious on all sides.

"We've had an increase in unfriendly relations with the public when it came to mask-wearing, with the public attempting to call out our lifeguards for not wearing masks when they're in the chair by themselves," says Westerly's Critz.

Michael Hurley, a regional manager for DEM who oversees Fishermen's Memorial State Park and Scarborough, Roger Wheeler, Salty Brine, and East Matunuck state beaches, says that only 5% of visitors wore masks in the beginning of the summer. He also fielded complaints about lifeguards who, he says, were screened every day, "and they sit at least 6 feet off the ground."

"These kids have been working together as a family since the end of May, everyday. They get their temperature taken every day and asked the COVID questions every day … If these kids go out in the water and they touch somebody, they have to go take a shower, decontaminate, and go back in the chair," he adds.

And stronger rip currents due to a more active hurricane season have not made the job any easier.

"With additional crowds, we've had additional rip currents to be vigilant of, and with more surf days this year, we've had an increase in our rescue volume," says Critz. "We average 150 rescues per year between the two [Westerly] beaches, and [by mid-August] we'd already hit over 200."

Just to see what it was like for his staff, Narragansett's Wright spent an 8-hour day in 85°F weather wearing his mask.

"I'm in the parking lot and I have to take down my mask to take a drink of water or just to breathe, just to catch my breath, and the first thing someone wants to do is take a picture of a staff member and complain that staff aren't properly wearing their face coverings … Excuse me, but that's a snapshot in an 8-hour period." he says. "You try that … it's impossible."

> "YOU DON'T GROW FROM SOMETHING THAT'S EASY"

By the end of summer, however, many people had acclimated to the new norms, if not the "new normal."

"Misquamicut [beaches] are looking good," said Cooke in mid-August, noting he thought people had figured out the rules more or less and that the trash was more manageable. "It's not overcrowded. Nobody's disrespecting the place that I can see. People have been complying with the mask usage. It took us all summer, but we got there."

A Daunting Winter, a Time of Growth

With the shorter and colder days of winter approaching, people will have to get creative to continue to enjoy the outdoors.

"When I felt cooped up in the house, I kept thinking, 'What's this going to be like in December?'" says Robbins. "When this all started, the weather was getting better, but what happens when it's February and going outside is less ideal?"

Taking walks, kayaking, and swimming is a much taller order when the temperatures dip and the sun sets at 5 p.m. Perhaps retailers will see an uptick in snowshoes, firepits, and long underwear. But finding ways to nurture mental health while keeping safe during the winter months will determine how people come out on the other side—maybe even better than before.

"Anytime you've learned or really grown, there was hard work and struggle in front of that. Any time you've come out of any situation, it wasn't easy," says Robbins. "You don't grow from something that's easy. Something that builds you is something that doesn't overwhelm you but challenges you."

"It's incredibly complicated, [but] there is a light at the end of the tunnel," says Robbins, noting that the pandemic won't last forever—and neither will the winter.

CATCHING A BREAK

FISHERMEN, OYSTER GROWERS EXPLORE NEW MARKETS AS COVID TRANSFORMS SEAFOOD INDUSTRY

by **Kate Masury** Portrait by **Jesse Burke**

I TURN LEFT OFF GREAT ISLAND ROAD INTO THE PARKING lot near the lobster boats, put my face mask on, and walk towards dock TT, the second dock down from Great Island Bridge.

It's July and this is the first time I've visited Point Judith since COVID-19 started, and I'm not sure what to expect. But on this Wednesday afternoon, things seem fairly normal. The port is bustling with tourists heading towards the ferry and beach, in the distance I can see boats returning to the docks from a day of fishing, and over near the lobster boats things are active yet calm. There are a few people waiting in their cars as a lobsterman wearing a mask approaches them and asks how many lobsters they want before turning to his friend, who hands up four lobsters in a bag from the boat below.

"Lobsters?" another fisherman asks me. "Not today," I say. "I'm looking for James and Briana Leonard, from the F/V *Briana James*." "Second boat from the end on the left," he says, pointing towards the end of the dock.

James Leonard is one of over 75 fishermen who have signed up for the new direct sale dealers license that allows Rhode Island fishermen to sell their catch directly from their boats to consumers. The emergency regulation establishing this temporary license is an effort by the Rhode Island Department of Environmental Management (DEM) to provide relief to both harvesters and consumers during the coronavirus pandemic.

"We understood from the industry that the traditional markets had collapsed. There was this break in the seafood supply chains. Many of the major dealers had closed [or] were unable to … accept catches during the early weeks of the virus because their market had crumpled. That left the commercial fishing industry high and dry," explains Bob Ballou, assistant to the director at DEM.

Previously, it was illegal for Rhode Island fishermen to sell their catch to anyone but a licensed dealer, who would then in turn sell to the public, restaurants, and into the wholesale and retail markets. This dealer/fishermen relationship isn't necessarily a bad thing. Dealers take care of the business of catch reporting, marketing, and selling the product that the fishermen harvest. Fishing is a full-time job with long hours and so is being a seafood dealer. The division of labor allows each side to focus and do what they do best.

However, because of the way the license structure was set up, fishermen were beholden to the dealers, and when the dealers had to close their doors, fishermen were left with no one to sell to.

"There were actual indications early on that there were fish sitting on the dock going nowhere and were just being wasted. Yet at the same time, we were hearing that there were food shortages. So there was a clear need to open up a channel whereby fishermen could continue to fish, and consumers could continue to get the food that they were harvesting," Ballou says.

With the temporary direct sales program in effect until October (with the permanent adoption of the program possible if approved through a formal regulatory process), fishermen with the new license now have the option of selling their catch direct to consumers with some restrictions. The fishermen can only sell fish from their boat or nearby dock within the same 24-hour period in which it was caught. The exception to this is lobsters and crabs, which, with the new license, can now be delivered and also stored live for longer than 24 hours. Finfish must be sold whole and crustaceans, live.

While over 75 fishermen have signed up for the new license, as of July 31, only about 17 fishermen are actively using it, and those fishermen have landed just over 20,000 pounds of seafood with a value of approximately $74,000, according to DEM.

Briana and James Leonard market their catch to customers through social media and their website, which includes videos on how to fillet and skin whole fish.

The Leonards have been selling their catch directly to the public from their boat in Point Judith.

Leonard is one of those, and for him and the others, direct sales give them an opportunity to get better prices in a market where prices are still reduced. But Leonard says his favorite part is interacting with his customers. "I'm very happy when my customers show up, whether they buy one fish, 10 fish, or 100 pounds of fish. That's the best part for me—I love teaching the public about our local fish and engaging with them."

The Leonards try to set up dockside sales every Saturday, and they have customers from Rhode Island, Connecticut, Massachusetts, New York, and New Jersey making the pilgrimage to Point Judith specifically to purchase fresh local seafood. Briana started a Facebook page for the boat, and they also started using the new FishLine app to advertise their catch.

The app, which is available free in the Google and Apple app stores, allows fishermen to share with consumers when and where they will be selling their catch, what species they expect to have available, prices, and preparation tips. This allows the Leonards and other fishermen using the app to reach a broader range of consumers—people they don't already know or who don't follow them on Facebook.

The direct sales program is not without its challenges, however. "The biggest obstacle at the end of the day is we don't have enough customers to sell our whole catch," says Sherry Kourtesis, wife of fisherman Jon Kourtesis from the F/V *Christopher Andrew*, based in Newport.

Their son Seth, who fishes with his dad and helps with the dockside sales, explains, "We aren't getting enough consumers, especially in this area [Newport]. Not enough people who want whole fish, fresh like this. A lot of people want it filleted, and we aren't allowed to do that. In Newport, there are a lot of people around, but many are tourists staying in hotels and they can't fillet a fish in their hotel room. If you go to other areas, like a city where it's more populated, you get people who are comfortable buying whole fish in large quantities to eat. We get people coming down from the cities to buy from us, which is great, but we need more people like them to make this work."

For fishermen targeting finfish, the restriction of only being able to sell whole fish from their boat means customers need to come to them, and they have to be willing to work with a whole fish, which, while simpler than it sounds, can be intimidating to some people. Therefore, both the Leonards and the Kourtesises have spent time educating their customers on how to prepare the different whole fish they sell.

However, for lobster and crab fishermen, direct sales have been a bit easier. Most people are familiar with steaming a

lobster and can apply the same concept to the less well-known crabs, so there is less of a knowledge barrier there. Lobstermen, like the ones I passed on the dock in Point Judith, have been able to survive this season of low boat prices by selling at retail-level prices direct to consumers. The new program also brings the added freedom for lobster and crab fishermen to offer delivery, and for some, that has been a game changer.

"As part of the new program, they allowed us to deliver lobsters and crabs, so that lets me sell in Bristol, where I live. My boat is in Newport right now, but I don't know anyone there. All my friends, family, and connections are in Bristol. So, I've been bringing crabs and lobsters, live on ice, back to my garage and selling them once a weekend. I've sold every lobster I've caught this year, and it pretty much saved our season," says Kenny Murgo from the F/V *Johnny B.*

Fishermen aren't the only ones adapting to changes in markets due to COVID-19. Dealers are feeling the same impacts and are also turning towards more direct-to-consumer solutions.

"In March, we were at zero sales at one point. We had a handful of markets, but we aren't a supermarket-oriented business; we primarily sell to local restaurants," says Tom LaFazia, sales and purchasing manager at Narragansett Bay Lobster. "With restaurants shut down or trying to survive on takeout, it wasn't enough. We started doing the whole home-delivery service thing initially to just try to keep staff employed."

With the help of his wife, LaFazia put together a new website for home deliveries where customers can place their orders, leave a cooler outside their homes, and later that week, the Narragansett Bay Lobster delivery trucks drop off anything from locally caught tuna steak, to littleneck clams, to picked crab meat, to whole scup and flounders, to live lobsters, to fillets of a variety of different local species.

LaFazia says while it's more work dealing directly with consumers, it's been going well, and they plan on continuing the home delivery option.

Graham Brawley from the Ocean State Shellfish Cooperative shared a similar story.

"We were having a good winter. It wasn't great, but it was good, and things were picking up as we expected. And then literally it was March 11th, and it stopped, and it stopped for two solid weeks completely. No sales. Nothing," says Brawley, director of sales and marketing for the cooperative, which buys and distributes oysters for 12 different oyster farms in the state.

As another business that had relied on restaurant sales, Brawley says they got hit particularly hard when their New York, Boston, Washington, D.C., and Philadelphia customers disappeared. He said with local restaurants opening back up, things have improved somewhat, but he still hasn't been able to replace those big city markets, which represent about 50% of his revenue, and he's worried what that will mean come fall.

Brawley also added a way for consumers to order oysters directly from the cooperative's website. "I have some restaurants I have known for 25 years, and they aren't opening, and so their customers have come to us asking for our oysters because they miss eating them in the restaurant," says Brawley.

For consumers, with all these businesses focusing on direct-to-consumer sales, accessing local seafood has never been easier.

"A lady came from Connecticut last week and bought over 100 pounds of butterfish. She spent like $300 on fish because she said she normally can't find these local fish and she loves them," Seth Kourtesis shared.

Locals have also taken advantage of the direct-sales program, such as Tricia Perez of Newport, who is now a regular customer of the F/V *Christopher Andrew*. "I've definitely bought way more seafood during this time. I feel like it's way more accessible, and I've made a point to buy it. It's my new weekend thing. This weekend my roommate and I will buy some scup, maybe some black sea bass, squid, or fluke, too, scale and clean it, and have a big dinner together. It's been fun!" Perez says.

The freshness of the fish is definitely one of the draws for her, but she says another thing she really likes is the opportunity to try some "weird" fish or fish that she wouldn't normally be able to get and experiment with in the kitchen. "Like I had weakfish for the first time!" she shares. "It's not something that I've ever seen in a fish market, but it was so good!"

She also has really enjoyed being able to support her local fisherman. "I think it's so cool that I got to meet a Newport fisherman, truly like my local fisherman who is going out fishing every day. It's also a family affair—his wife is there, his kids, and his in-laws. It's nice to be able to support this family."

For Laurel Ruma of Medford, Massachusetts, eating Rhode Island seafood during the pandemic has helped her connect with the Rhode Island experience she had been missing. During the early part of the pandemic, her partner, Mike, actually drove down to Narragansett specifically to pick up 100 oysters from the Ocean State Shellfish Cooperative, and after enjoying the oysters raw, fried, in oyster stew, and sharing with some friends, they later had 100 more shipped from the cooperative to Medford.

"Without COVID we would usually be in Rhode Island every two months just to hang out and explore. During COVID, we were still looking for that Rhode Island experience, and eating Rhode Island oysters helped provide that. We've absolutely missed Rhode Island and shopping for our seafood and oysters there. One of the last trips we did was down to Bristol to Andrade's Seafood, and we can't wait to come back to get more fresh fish and see what they have. And of course, following them on Facebook has been so much fun," Ruma says.

While this year has certainly been a difficult one, especially if you work in the seafood industry, there have been some silver linings. According to Kenny Murgo, "One of the only good things to come out of this was that people realized that they want food from close to their homes. The support around me has been great!"

SERVING UP RHODE ISLAND SEAFOOD

Photograph by **Monica Allard Cox**

To encourage people to try their hand at preparing Rhode Island seafood, James and Briana Leonard have shared recipes, including these for flounder and black sea bass. Other fish may be substituted. These and many other recipes may be found at Eating with the Ecosystem's website at www.eatingwiththeecosystem.org/recipes.

FLOUNDER FRANCAISE

Courtesy of F/V *Briana James*

Ingredients

2 eggs, beaten

1 tablespoon olive oil

1 tablespoon butter

½ cup flour

¼ teaspoon salt

¼ teaspoon onion powder

¼ teaspoon garlic powder

⅛ teaspoon paprika

⅛ teaspoon black pepper

4 large flounder fillets (1 ½ to 2 lbs)

Sauce

4 tablespoons butter

¼ cup white wine

¼ cup water

¼ cup lemon juice

½ teaspoon parsley

lemon slices and parsley to garnish (optional)

Directions

In a large skillet, heat the oil and 1 tablespoon of butter over medium heat.

Place the flour and all the seasonings in a plastic bag and shake to blend.

Place the beaten eggs in a shallow dish.

When the skillet is good and hot, put the flounder fillets in the bag one at a time and then dip in the egg. Coat them completely with the egg and place in skillet. The egg should sizzle immediately. If it doesn't, the oil isn't hot enough.

Save 1 tablespoon of the flour mixture for the sauce.

Fry over medium heat until brown on both sides, about 3 to 4 minutes per side. Add extra butter if you need to.

Remove from skillet, keep warm.

Discard any oil left in skillet and add the butter and the 1 tablespoon of seasoned flour reserved from the flounder.

Whisk until smooth. Add the rest of the sauce ingredients, stirring constantly until well blended. Bring to boil and cook 5 minutes, stirring frequently. If the sauce thickens too much, add more water—just 1 teaspoon at a time until you achieve the desired consistency.

To serve place flounder over a bed of buttered rice (or whatever you're using) and pour a little sauce over each fillet. Garnish with lemon slices and parsley.

BLACK SEA BASS IN HERBED BUTTER

Courtesy of F/V *Briana James*

Ingredients

1 pound fresh Tautog or blackfish fillet

¼ cup butter or margarine

2 tablespoons lemon juice

2 tablespoons fresh chives, chopped or 1 tablespoon dried

2 tablespoons fresh parsley, chopped

3 tablespoons fresh dill, chopped or 1 ½ teaspoon dried

dash cayenne pepper to taste

paprika to taste

¼ cup salt, plus more to taste

Directions

Place fish in salt water brine (4 cups of water mixed with ¼ cup of salt) and let it soak for 30 minutes. Wash well, then rinse and pat dry with paper towels.

Preheat oven to 400°F.

In a small saucepan, melt butter or margarine and stir in lemon juice, parsley, chives, dill, and cayenne, and salt lightly to taste.

Cut fillets into serving size pieces and place them in a lightly oiled baking dish. Pour butter and herb mixture over fillets. Sprinkle with paprika. Bake uncovered for about 8 to 10 minutes or until fish begins to flake.

Transfer fish to a warm serving platter. Boil pan juices until reduced to about ¼ cup and pour over warm fish.

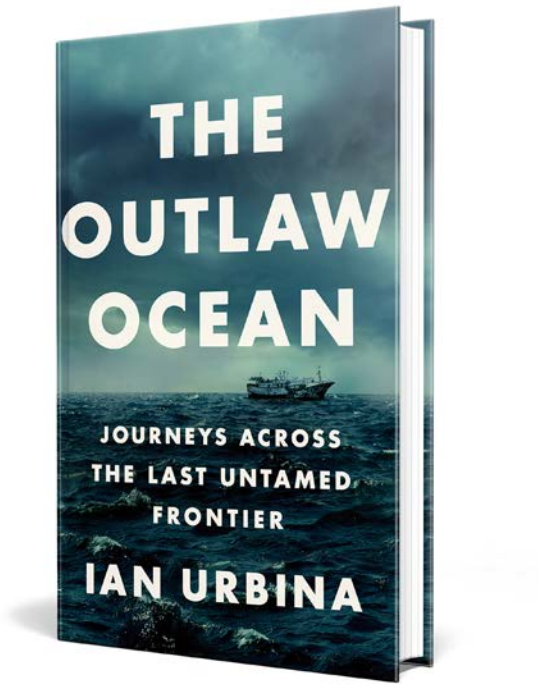
Serve immediately.

The Outlaw Ocean

JOURNEYS ACROSS THE LAST UNTAMED FRONTIER

By Ian Urbina

Reviewed by **Monica Allard Cox**



THERE IS THE STORY YOU THINK YOU KNOW—say, the controversy surrounding Japanese "research" whaling in the Antarctic. Then there are the details you didn't know, perhaps—the brutality of how the whales are slaughtered, or the vast bureaucracy around government-sponsored whaling that would view any curtailing of the program—especially at the pressure of other nations—as a source of embarrassment. And then there is the rest of the story—the battle of wits between whales and the toothfish ("Chilean sea bass") boat captains, who try to fend off the whales as they eat the fish right off the hooks before the fishermen can haul them on board. The whales, author Ian Urbina writes, have learned to recognize the sound of the winch motor that tugs the fishing line and can hear it from 15 miles away.

> "The problem got worse in Alaska in the 1990s, after fishery authorities lengthened the fishing season from two weeks to eight months. Rather than tightly limiting boats' time at sea or, for example, giving boats two weeks to land as much as they wanted, the authorities permitted captains to take however long they pleased, but only to land a set quantity of fish.
>
> The authorities' goal in extending the fishing season had been to discourage boat captains from taking dangerous risks as they tried to beat the weather and race the clock, but an unintended consequence of the policy was that by having boats in the water for longer, the likelihood of overlap between the whales and these boats went up.
>
> It also gave whales the time to hone their skills and pin down exactly when and how to best hijack the long-liners."

Urbina adds that the captains have tried numerous tactics, from blasting heavy metal music to using decoy boats to trick the whales. But the orcas, in particular, are intelligent and tough to deter. One captain says he had tried using a series of noise-making equipment, but eventually the orcas learned to ignore the sound.

This fascinating sideline returns to the story of the Japanese (and Norwegian) whalers, who justify their hunts due to whales' depredation of the fishing vessels' catch. ("Most whale researchers reject these claims," Urbina notes).

The tale of these whales doesn't end there—Urbina goes on to chronicle how other fishery regulation changes made the whales even more dangerous to the fishing boats, and how vacuum boats that suck massive quantities of krill—whale's dietary staple—out of the ocean are also threatening the whales, as is global warming. And along the way he profiles the nonprofit organization and its boat captains and crew who supply vigilante justice where governments, in their eyes, fall short.

Ian Urbina's reporting for *The Outlaw Ocean* took him across five seas and 14 countries in Africa, Asia, the Mediterranean, South America, and the Middle East.

The shifting narrative, the insights into human and animal behavior, and the cascades of unintended consequences in this one chapter of *The Outlaw Ocean* may give a clue as to why Leonardo DiCaprio optioned the film rights to the book—and reveal the challenges in adapting even one chapter for the screen. How could a filmmaker narrow down the plot twists or the characters? How could someone make this true story believable?

For in fact, the story of the whales, hunter and hunted, is not the most shocking chapter in the book. Urbina, who spent more than five years reporting for *The Outlaw Ocean*, takes readers on board rickety boats many miles offshore as high seas set in, to the depths of the ocean on submarine voyages, and to the tiny island "nation" of Sealand. He brings us face-to-face with stowaways, scientists, maritime repo men, human traffickers and their victims, and the humanitarians and environmentalists who fill in the voids between competing, complacent, or ill-equipped governments. Portions of the book have a spy-caper-movie feel to them as Urbina talks about getting out of any number of scrapes with death, while his subjects describe conning government officials, "extracting" ships from unfriendly ports, or chasing poachers more than 11,000 miles across three oceans and two seas.

But in the end, he writes, "the most important thing I saw from ships all around the world … was an ocean woefully underprotected and the mayhem and misery often faced by those who work these waters."

What he saw created for him an urgency to continue this reporting after his leave from the *New York Times* ended, said Urbina during a virtual talk at the University of Rhode Island Graduate School of Oceanography in September.

"The stories were so urgent and so dramatic … that I had touched on and also hadn't gotten the chance to touch on … I stepped away from the *Times,* created a nonprofit to produce these stories … for the *New York Times* and other venues around the world." He described some of those stories and his organization's work with artists to create musical and animated works inspired by the reporting.

Urbina's talk can be seen at https://youtu.be/ZS9DKk6cckw, and information about The Outlaw Ocean Project may be seen at https://www.theoutlawocean.com/.

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