sustainable seafood: aprimer



text and photos by abby luby

bover gently near the bottom, changing their appearance at will to camouflage against predators. A summer fish, they are known as chameleons of the sea, and they are savored for their delicate and tasty white flesh.

Catching fish from vast oceans and rushing rivers for sustenance is an ancient aquatic pursuit that evolved into one of the world's largest food industries. Today it's an industry in trouble. Global waterways have been polluted and overfished, endangering many species—including



flounder, whose population was severely depleted in the 1980s and 1990s, tuna, swordfish, cod and others. Efforts to rebuild and sustain the world's supply of fish has seen positive but incremental results; many countries can't—or won't—control commercial boats overfishing in international waters.

In the United States, stringent regulations are enforced by dock-side agents who scrutinize the quantity, size and type of fish caught. Catch restrictions mean there are fewer wild fish to sell, which has compelled the seafood industry to turn to aquaculture, or fish farming, which has an entirely different set of problems. Farmed and wild-caught fish lay side-by-side at fish counters—glistening fillets and steaks (fresh or previously frozen) and whole fish splayed on beds of ice suggest aquatic life is plentiful. But is it? The journey for wild fish from where they're caught to the store's fish department can take days; the counterperson might or might not know when and where the fish was caught and when it was delivered, but probably won't know who the distributor is or, if it was farmed, on what type of farm it was raised. Fish at your local supermarket already have been handled by the fishermen, the dockside, fillet and package handlers, purveyors and distributors—a carbon footprint that looms large and can deem the label "fresh" dubious. More and more fishmongers are putting their catch into the hands of consumers by selling direct at local farmers' markets.

Pura Vida Fisheries is owned and operated by Captain Rick Lofstad, of Hampton Bay, Long Island. He first started selling his fish at New York City Greenmarkets in 2004; today, Pura Vida is in more than two dozen farmers' markets from Troy to Manhattan, including the year-round Cold Spring market. (In April, Pura Vida's offerings at Cold Spring included yellow-fin tuna, salmon, scallops, oysters, mussels, clams and flounder.) "We've developed a real following here in the Hudson Valley and the fish sells very well," Pura Vida's Ralphy Laino notes.

Other fishmongers have discovered similar successes. "The Green Markets in the city have been good to us," says Stephanie Villani, who owns the Blue Moon Fishing Company with her husband, Alex. He operates his oneman boat out of Mattituck, on the north fork of Long Island, and sells the catch at farmers markets in Tribeca, Brooklyn's Grand Army Plaza and occasionally at Union Square. Villani first sold his catch at the greenmarkets in 1988 as a sideline, but the venture grew to be his sole source of income. "Over the years, we've heard people ask more questions about fish," Stephanie says. "They want to know how fresh the fish is and where it's from. Right now, we're selling sea bass, which is plentiful in the spring and summer. When people ask for Chilean sea bass, I tell them it's overfished and our fresh sea bass was swimming 24 hours ago, that it's local and sustainable. What's great is that people come up to Alex and thank him for the fish they ate last week-no one had thanked him in the 40 years he's been a commercial fisherman."

How a fish is caught and if other, noncommercial aquatic life is left untouched has a lot to do sustainability. Villani uses a small-scale dragger—an adjustable net that herds fish and minimizes "by-catch" (fish caught unintentionally). According to the National Oceanic and Atmospheric Administration (NOAA), the worst fishing methods are longlines (miles of fish lines barbed with thousands of hooks), bottom trawlers, and giant nets that dredge up the sea bottom, essentially clear-cutting the ocean floor, collecting and killing everything from sea urchins to whales. Larger commercial boats use midwater trawlers—giant nets that can snag sea turtles, dolphins and forage fish, but, if used correctly, can avoid the ocean floor without trapping unwanted fish or damaging the habitat. Pura Vida is known for using hook-and-line, a low-impact fishing method that allows unwanted fish to be returned to the water alive.

According to NOAA, 86 percent of seafood consumed in the United States is imported from China, Thailand, Canada, Indonesia, Vietnam and Ecuador. Some of this catch is legal, some isn't. Unreported and unregulated seafood doesn't only threaten the environment and the global supply, it robs legal fishermen and coastal communities of up to \$23 billion of seafood products annually. "By law, every piece of seafood has to be labeled with the country of origin," explains Sean Dinim, co-founder of Sea to Table, a Brooklyn-based fish supplier whose innovative business model directly connects chefs with fishermen and small-scale sustainable wild fisheries. "The U.S. domestic and wild seafood and farmed seafood are good, their managements are the best in the world. It's key for us to know where our fish is from and what are the real costs to the environment—an issue that particularly resonates with us."

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The core of Dinim's business is based on close relationships with fishermen and their communities and knowing who follows rules and regulations. "We partner with local commercial docks and fishermen from different regions in the United States, from Alaska to the Gulf Coast," Dinim stresses. "We personally visit fishing communities, meet with every single fisherman, shake his hand, share a drink. When we visit chefs, they love to hear how the fish was caught, who the fisherman is and the name of his boat."

"I need to know how the fish is caught from the sustainable perspective," says Shelley Boris, co-owner and Executive Chef of Fresh Company, a catering company that runs a full time food service at the Garrison Institute, the Storm King Café and is a vender at the Cold Spring Farmers' Market. Boris frequently checks for recommendations at SeafoodWatch.com, a widely used web resource and guide. "I try to be informed as well as I can. Fish is expensive and we sometimes serve smaller portions or put it in hors d'oeuvres." At a recent Earth Day celebration dinner for over 100 people, Boris used tilapia from Continental Organics, an aquaponic farm in New Windsor, and created Tilapia Brandade, a flavorful puree. She also made shrimp cakes using wild Florida Gulf shrimp delivered to her by Sea to Table, a Brooklyn-based fish supplier whose innovative business model directly connects chefs with fishermen and small-scale sustainable wild fisheries.

High-tech social media and the internet speeds up the journey from fish to plate. A supplier can post the catch of the day on line or Instagram a picture of fish just hauled out of the water. A chef sees it, orders it and gets it within 24 hours. Checking Instagram for Sea to Table's daily catch is Eric Gabrynowicz, chef and co-owner of Restaurant North in Armonk. "We've come a long way from getting tuna at the fish market and not knowing where it comes from," he says. "There's a great level of comfort knowing everything about the fish that is going to be on your menu that night. We get the fish in rigor, it's beautiful, tight, hard as a rock."

Every summer, Gabrynowicz eagerly awaits salmon from an Alaskan fishing community in Bristol Bay where for generations, families have fished the bay during the sixweek wild sockeye salmon season, many using traditional hand-woven nets. Sea to Table flash-freezes the salmon at the bay and ships it to the restaurant overnight. "Bristol Bay Salmon is the one thing the staff gets excited about," asserts Gabrynowicz. "The incredible thing about it is it's flesh it's fire engine red and the craziest thing I've ever seen." A recent order to Restaurant North was golden tile fish from Montauk, which is plentiful in the spring and summer. The catch was taken off the boat, graded, tagged, put in boxes and delivered the next day. "My menu lists the docking point and the servers always know the fisherman and the vessel that caught it. Whatever kind of fish you order my server has a story to tell," Gabrynowicz says.

Not long ago, a diner at Farmer & the Fish in Purdys asked their wait person when soft shell crabs would be on the menu. The server approached Ed Taylor who co-owns the restaurant with Chef Michael Kaphan for an answer. "It depends on the water temperature," he tells her. "We should get them in next week." Taylor also owns the wholesale fish company Down East Seafood, housed in a 17,000-square-foot facility at Hunt's Point in the Bronx and employs about 60 workers (some have been with the company for 20 years). "We have a good handle on what we're buying and we try to inform chefs and give them guidelines to what's sustainable," says Taylor, who grew up with a passion for fishing and has decorated the restaurant walls with family photographs of smiling, proud fish catchers. Down East delivers to restaurants and markets in Westchester, Southern Connecticut, Long Island, Northern New Jersey, and the five boroughs. Hudson Valley restaurants and markets getting Down East fish include DeCiccio, Mrs. Greens, Village Social in Mt. Kisco and Good Life Gourmet in Irvington. Because of the great



demand for oysters, Down East regularly sends a truck to the Northeastern Cape Cod Bay dock where fresh, farmed oysters are bagged and tagged, taken to the Bronx, re-tagged by Down East and delivered to restaurants and markets.

Shellfish culture, including clams, mussels and scallops, is grown on beaches or suspended in water by ropes, plastic trays or mesh bags, methods that are considered sustainable. Most, if not all, oysters we eat are farmed. Oysters are filter-feeding shellfish that are actually good for coastal waters and can restore oyster reef habitats. Some 350 small-scale family and co-op producers harvest oysters in the Northeast, according to the Northeastern Regional Aquaculture Center, and can be found off the Long Island Sound in waters between Connecticut and Long Island, from New York City to Fishers Island and bays along the island's south, Atlantic shore.

Experts tell us that over the next decade most of the fish we eat will be farm-raised, not wild. In the U.S. there are strict regulations for fish farm management practices that must comply with food safety and environmental standards. FishWatch (fishwatch.gov), a resource maintained by NOAA Fisheries, cites fish farms that negatively impact the environment as well as those that are managed well and considered sustainable. Some are better than others: hatchery fish are bred and reared in nurseries and can ultimately compete with wild populations for food. Open net pens or cages enclose fish, like salmon, in offshore coastal areas or in freshwater lakes; this type of fish farm sees fish waste, uneaten food, disease, parasites, pesticides and antibiotics leach out into surrounding waters that pollute wild habitat. Operating from the opposite spectrum of sustainable are farms that feed carnivorous fish other wild fish. It's estimated that it takes over three pounds of wild fish to grow one pound of farmed salmon. Each year millions of fish escape from aquaculture operations but the exact impacts on nearby waterways aren't known. The "escapees" compete with native fish and may interbreed — changing forever the native species gene pool. Farmed non-fish eaters are shellfish, tilapia and catfish.

Even though the future of wild fish populations is tenuous, some species have already benefited from sustainable harvesting methods. The once lonely flounder blending in with the bottom of the ocean has more company these days. In 1996 the summer flounder population started to rebound and by 2010 commercial and recreational fishermen were allowed to catch limited amounts. Regulations require that the size of mesh fishing nets could allow juveniles to escape. Current estimates say global seas are home to some 30 million flounder. SeafoodWatch recommends we buy wild flounder from the Atlantic and avoid those caught by bottom trawl or gillnet. Perhaps we can ultimately save the planet's wild fish, allowing them to thrive in coastal lagoons, estuaries, rivers and seas, offering a bounty that is carefully harvested, sustainable and seasonably fresh. ×



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