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Royal Red Shrimp: Stonington's Succulent Secret

by Suzanne Zack

Twelve years ago when faced with a dwindling catch, veteran Stonington, Connecticut scalloper William I. Bomster looked deep into the ocean for an answer and discovered one in royal red shrimp *Pleoticus robustus*, a crustacean whose distinctive bright red color and sweet flavor make them treasured by many over their Gulf Coast cousins.

Although Bomster had hoped the new fishery might supplement if not replace his diminishing scallop business, things didn't work out as planned. Insufficient quantities of the new shrimp, known locally as "Stonington Reds", tided him over only for a short time, until scalloping improved. But in that brief time, he succeeded in whetting the appetite of regional chefs and foodies alike for the new and different crustacean.

"They're very 'seafoody'; sweet, delicate, and lobsterlike," says Bill J. Bomster, 47, William I.'s son, who now sits at the helm of the family's wholesale and retail seafood operation, Stonington Seafood Harvesters.

Initially, the Bomsters promoted their new catch by giving five-pound blocks of the shrimp to local chefs, who tried them, wowed diners with delectable recipes, and sang their praises to their colleagues. Fans snapped them up at the Bomsters' retail store at the Stonington Town Dock and kept their eyes peeled for the small notices of their impending arrival in the local newspaper placed by local fisherman and purveyor, Bob Guzzo, who sold them at the Stonington Farmer's Market. In no time, they were a precious commodity among seafood connoisseurs.

A soft-fleshed shrimp, they can measure anywhere from four to 10 inches, and have colors ranging from pink to red, making them look as though they've already been cooked. At \$16 per pound they're pricier than their Gulf relatives, but to the seafood savvy, the price is irrelevant.

"They're very expensive and they're hard to get, but they're worth it if you can grab hold of them," says Nancy Balcom, extension leader with the University's Sea Grant College Program.



Bill J. Bomster is a fan of royal red shrimp, also known as "Stonington Reds". When he began fishing for them, he gave the shrimp to local chefs to try the new catch (see facing page.)

Balcom worked with the senior Bomster to develop the project proposal and to write a report on the results of his \$118,000 Fishing Industry Grant from the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration that enabled him to find the royal red shrimp. The grant was part of a \$9 million Congressional appropriation to support Northeast fishermen in their exploration of new opportunities in fisheries, aquaculture, and marine business. The federal funds came as a response to diminished fishery resources in the Northeast due to over-fishing, pollution, loss of habitat and natural population fluctuations.

The grant the senior Bomster received in 1994 enabled him and sons Bill, Joe, and Mike to outfit their 95-foot western-rigged sea scalloper *Patty Jo* and trawl for scarlet shrimp at depths of 250-450 fathoms (1,500-2,700 feet). The objectives were to locate areas where the shrimp were, assess commercial quantities of the shrimp, determine market acceptance, and conduct a scientific analysis. Although the family failed to find commercial quantities of the scarlet shrimp they sought, they did land 11,000 pounds of royal red shrimp and other unusual species of deep sea fish that are now catalogued and housed at Yale's Peabody Museum. But it

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Stonington fisherman Alan Chaplaski, captain of the Neptune, began fishing for royal red shrimp in 1997.

was the royal red shrimp that generated a flurry of interest and demand among chefs and consumers alike.

According to the Marine Fisheries unit of the Connecticut Department of Environmental Protection, Connecticut fishermen landed more than 169,000 pounds of royal reds with a value of more than \$880,000 from 1995 through 2006. While impressive, the statistic is dwarfed by the state's total catch of more than 207 million pounds of fish, valued at \$440 million, during the same time period.

Although small in relation to the state's overall landings, Balcom says the discovery of the off-shore species, new to Northeast fishermen, is important. "It's a small fishery that allows fishers to trawl for them for a few months, so they don't have to fish in competition with everyone else, especially if they don't have many days to fish remaining on their permits. It's an alternative, and the shrimp can bring in some pretty decent income."

Not only was the discovery of the shrimp unusual, but so was the new federal initiative that enabled people like Bomster, to explore at no cost to them, other viable fisheries. John Leamon, a UConn graduate student, collected scientific data during Bomster's trips. Balcom used the data to create a non-proprietary report, made available to fishermen, which shared details of the fishing techniques, area and depths fished, and results of each tow.



The Stonington Red, or Royal Red Shrimp, in the flesh-and very tasty flesh it is.

After Bomster's discovery, several fishermen in Connecticut and neighboring states tried their hand at royal reds, but due to the limitations of the fishery and cost of outfitting a boat with deep water nets, miles of wire needed to tow it, and other gear, their numbers decreased.

Today, Alan Chaplaski, captain of the fishing vessel *Neptune*, also out of Stonington, is the sole fisherman in Connecticut, who routinely plies the waters from June through the fall in search of what seafood aficionados consider one of the state's best kept secrets.

Chaplaski, 57, began fishing for the shrimp in 1997, hoping to get in on the ground floor of a new unmanaged, low-volume, high-priced product. Today, a decade later, he and his two-man crew, continue to steam 12 hours out to the Continental Shelf some 100 miles southeast of Stonington where they spend three or more days in search of the shrimp.

A native of Fishers Island, New York, Chaplaski began lobstering with a row boat when he was 16, progressed to a powerboat, and used the profits to earn associate's degrees in engineering and commercial fishing.

Some fishermen wouldn't dream of operating without the assistance of fish finders, electronic devices that track fish by color and depth. Such devices are useless in tracking shrimp, Chaplaski says. Shrimp emit sound by rubbing their legs together, similar to crickets, and

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Bob Guzzo sells red shrimp, when available, at farmers markets in Connecticut.

unwittingly become targets of underwater surveillance equipment used by the military, he says. "The only way to find shrimp is the way the U.S. Navy does, with an underwater microphone," Chaplaski quips.

He relies upon his knowledge, instinct, and record of prior hauls to find his often elusive prey. His record-catch to date: 2,500 pounds during one three-day trip.

The royal reds are considered a bycatch; Chaplaski's fishing permit is for whiting. The shrimp are only available six months of the year; the rest of the time the fishing grounds are reserved for off-shore lobster gear. When not pursuing shrimp and whiting, Chaplaski fishes for monkfish, squid, summer flounder, and hake.

Catching the shrimp is labor intensive. After hauling the bottom trawling net on board, the shrimp are sorted, washed, and headed, a procedure that's akin to snapping your fingers, Chaplaski says. With an estimated 30 shrimp to a pound, the crew will handle anywhere from 6,000 to 75,000 shrimp during a trip. Once the heads are removed, the shrimp are washed and iced down in a mixture of ice and water, then dipped in a solution that prevents black spot or melanosis from occurring. Blackspot is a harmless, but unappealing surface discoloration resulting from a series of biochemical reactions. The reaction is similar to the browning of

apples or potatoes which can reduce commercial value.

When the *Neptune* and its crew return to port, they will spend a day unloading their catch, and a day replenishing supplies and making repairs. The crew gets a day or two off, before heading out to sea again. Chaplaski must cope not only with the weather, but with market demand, making holidays a luxury. The *Neptune* will only be found in port on Christmas, Thanksgiving, Easter, and during the local "Blessing of the Fleet" festival in July. While an admittedly grueling schedule and life, Chaplaski smiles and admits it's one "that grows on you."

Although some of the shrimp go directly to lucky individuals Chaplaski knows, the majority are sold to Gambardella's Wholesale Fish Dealers of Stonington and East Haven, which in turn sells most of them to Bob Guzzo, a local fisherman, who has created a local niche market by selling them along with other locally caught fish at Farmer's Markets in the Connecticut shoreline communities of Lyme, Stonington, Madison, and Mystic. "The shrimp and scallops go first," Guzzo says. "I can't keep them in house."

Among Guzzo's regular customers at the Lyme Farmers Market is Peter J. Auster, science director of the National Undersea Research Center and associate research professor of marine sciences at UConn's Avery Point campus.

Auster studies the ecology of fishes and the ecological effects of fishing. "Royal reds are not a new species, just a new species that's reaching the market," he says.

Royal reds are found throughout the Gulf of Mexico and along the Atlantic coast from Cape Cod, MA to French Guiana in South America. Their larvae are carried north by the Gulf Stream to settle into adulthood along the Atlantic Coast. In the southeastern U.S., the core habitat area is located off Florida and the northeastern Gulf of Mexico. In both the southeast and New England, they are found in water that is about 50 degrees.

Royal reds were developed as an experimental fishery in 1950 in the southeastern U.S. with support from the Bureau of Fisheries, the federal agency that later became the National Oceanic and Atmospheric Administration (NOAA) Marine Fisheries Service. The commercial fishery began officially in the Gulf of Mexico and off Florida's east coast in 1962.

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Auster, who has observed the large-eyed species in his underwater studies since the mid-1980s, says that many species of shrimp are predators and serve an important ecological role. Motioning to the waters of Long Island Sound just outside his Avery Point office, he says, "There are small shrimp out here that feed on little baby flounder, other crustaceans, and all other types of beasts. They're ubiquitous. This just happens to be one that's large."

"From my perspective, what is interesting is that these are considered a bycatch fishery," Auster says. "Because there's such a small amount of fishing effort, I feel less angst about eating these than eating any other shrimp. I tend to avoid eating non-U.S. shrimp because I don't view those as sustainable."

Auster says its unclear if or where the species aggregate to reproduce, so spawning groups likely are not affected by the fishery. "I would suggest, and this is simply an educated guess, that we're not having that large an impact on their population given that it remains a highly localized fishery."

The sustainability of the species and the fact that they are caught locally are meaningful to Auster. "Buying local, in general, whether it's vegetables or fish, puts us as consumers on a path toward reducing our impact on the world," he observes. "If you're buying some product that comes from the other side of the globe, the carbon footprint is large just in transport, as opposed to buying something that's caught locally, marketed locally, and consumed locally."



The *Neptune*, now the sole vessel in the Stonington fleet that fishes for royal red shrimp, with crew at the annual Blessing of the Fleet in Stonington, Connecticut.

For Auster, not only are the shrimp sound environmentally, but exceptional in flavor. He buys them, "whenever they're available" from Bob Guzzo at the Lyme Farmers Market and either marinates them in garlic, soy sauce, sake, and honey and grills them, or else sautés them in butter, garlic, black pepper, Worcestershire sauce, and white wine. "Cook up a pound in the shell, serve them with some crusty bread and a good white wine, and they're a great dinner."

UConn Professor Emeritus of Molecular and Cell Biology Hans Laufer, who studied royal reds through a grant from the Northeast Regional Aquaculture Center, a division of the U. S. Department of Agriculture, attributes their sweet, delicate flavor to increased levels of glycogen, the main form of carbohydrate storage in animals.

Their unusual coloring, he says, is likely the result of camouflage. "They live on the bottom at least 1,000 feet down where there's little

light. They're probably sitting on a dark brown background and want to blend in," he suggests.

Unlike tropical, farm-raised shrimp – the variety most commonly eaten by consumers – which complete their life cycle within a year, royal reds seem to breed all year long and mature very slowly, taking anywhere from three to five years, Laufer notes.

Today, well over a decade after first surfacing in Connecticut, royal reds continue to maintain their regal reputation among seafood's cognoscenti.

"They're touted because they're just a really cool product," says Nancy Balcom with a grin. "You're in the know if you've had some of these shrimp."

About the Author:

Suzanne Zack, who first discovered the delectable flavor of royal red shrimp seven years ago, handles communications for UConn's libraries. When not in Storrs, she can usually be found exploring Connecticut's coastline.