

There's something about shrimp: Examining our favorite seafood

Every year, the average American eats over four pounds of shrimp, the most widely consumed seafood in the country. Besides being adaptable to a range of cooking styles and techniques, strong-selling shrimp has broad appeal, even for diners with timid palates. "It's a safe seafood," says Robert Stehling, chef-owner of the Hominy Grill in Charleston, South Carolina, where shrimp is integral to his brand of low-country cuisine. For Stehling and thousands of other chefs around the country, serving shrimp is a matter of course.

As with many other products, bringing shrimp into the restaurant comes with a set of questions for chefs to consider, like whether the shrimp is imported or domestic, farm-raised or wild. If it's wild, how was it caught? Whether you aim to buy products as locally as possible, or to make purchases with minimum ecological impact, or to get your hands on the most pristine product you can find, understanding the issues related to our shrimp supply can help you make an informed buying decision.

On the market: Imported farm-raised shrimp

In the past few decades, fish farming has been increasing in intensity and scale around the globe, and shrimp farming has been one of the fastest growing sectors of aquaculture overall. 90% of shrimp in the United States is imported from Asia and South America. In 2006, the US imported 1.3 billion pounds of farm-raised shrimp—more than any other seafood.

The ecological consequences of shrimp farming are well documented. Most (not all) imported shrimp is intensively farmed in countries like Thailand, China, and India. On farms producing up to 89,000 pounds of shrimp per acre of water, there is widespread pollution from waste and antibiotics; and wild fish stocks are being depleted as they're caught and used to feed farm-raised shrimp. This intensive model contributes to the destruction of mangrove forests and other wetland ecosystems, which play critical roles in coastal communities by filtering pollution, preventing erosion, and promoting biodiversity by hosting a wide range of plant and animal species. Developing countries, where the majority of aquacultured shrimp is reared, are particularly vulnerable to the storms, floods, and other weather-related catastrophes made more intense from ecosystem destruction.

And while intensive shrimp farming produces large, uniform products that are valued in the marketplace, most chefs will tell you that the taste and texture of industrially farmed shrimp can't compare to the sweet-tasting product they can purchase from domestic shrimpers. "I'll go without if I have to use the Asian stuff," says the Hominy Grill's Stehling.

On the docks: The domestic marketplace

With six times as much imported farm-raised shrimp on the U.S. market than domestic shrimp, the U.S. shrimp industry is struggling with the imbalance. The Food and Drug Administration inspects less than 1% of seafood imports entering the United States. The low volume of inspections can mean that tainted product that doesn't meet standards in other export markets like Japan, Canada, and the E.U. gets sent here, says John Williams, executive director of the Southern Shrimp Alliance trade organization.

Connecting Land and Sea

"One of the greatest threats to the southern shrimp industry comes in the form of nutrient pollution from farms, sewage plants and development," writes fishmonger Paul Johnson in his book, *Fish Forever*.

Land-based activities affect the wetlands and estuaries that provide habitat for domestic shrimp. And excess nutrients in our waterways also affect marine life offshore.

When excess levels of nutrients like nitrogen and phosphorus are released from fertilizers, fossil fuel combustion, and animal wastes, they feed on plants in the water and cause massive algae blooms, which eventually chokes off oxygen in the water and makes it impossible for marine species to survive.

A so-called Dead Zone in the Gulf of Mexico is caused by nutrient run-off from agriculture and development that travels to the Gulf via the Mississippi River. Scientists and fishermen are concerned that its growth will result in loss of marine species and the potential collapse of the Gulf of Mexico seafood economy, in which shrimp plays a large role.

Because of the high volume of inexpensive imports on the market, prices paid to domestic shrimpers have dropped by 45% since 2000, even though costs to consumers have not dropped accordingly. To counter low prices, the domestic shrimp industry is positioning wild-caught American shrimp as a premium product, and has launched an initiative to brand and certify Wild American Shrimp.

The domestic shrimp supply is mostly wild—of the 200 million pounds of domestic shrimp brought to market in 2006, about 168 million pounds were wild-caught from the Gulf of Mexico and the South Atlantic coast, with a smaller amount of cold-water species: pink shrimp from the North Atlantic and spot prawns from the Northern Pacific coast.

Along with Asian imports and trade regulations, operating costs are pinching the domestic industry, “Five years ago we were paying 40-60 cents a gallon for fuel,” says John Williams of the Southern Shrimp Alliance. “Now we’re paying \$3/ gallon.” Costs of labor and materials have risen, as well. These combined factors are driving domestic shrimpers out of business—the number of shrimp boats in the Gulf of Mexico declined from approximately 4000 in 2000 to approximately 2500 in 2005, according to the Gulf Fisheries Management Council.

A deeper domestic dive

Domestic wild-caught shrimp is not without its own set of issues. Offshore trawling for shrimp can harm the ocean floor and pull up high levels of bycatch—for every pound of shrimp harvested, more than four pounds of other marine life is caught and discarded. Fishermen have worked with conservationists and their regional Fisheries Management Councils to craft less damaging gear and to require the use of fish and turtle excluder devices on the boats to reduce bycatch.

Chefs located away from the Gulf Coast and South Atlantic states where fresh seasonal shrimp is abundant might consider importing frozen-at-sea Gulf shrimp, which despite being caught by bottom-dragging trawlers, are a less damaging alternative to rock shrimp, which are caught by trawlers from rock and coral reefs.

Further background and sourcing information:

www.wildamericanshrimp.com
www.montereyfish.com
www.cleanfish.com
Ray Brandhurst/ Four Winds Seafood:
504-228-8038

www.scshrimpmkt.com
www.foodandwaterwatch.org
www.oceansalive.org
www.blueocean.org
www.scaquarium.org
www.whitebootbrigade.org

Some chefs, however, take a more seasonal, regional approach.

“We import pink shrimp from Maine, in season,” says Michael Leviton, chef-owner of Lumiere restaurant near Boston. “We don’t get involved in any other way.” (The season for net-caught fresh Maine shrimp runs from December until the quotas are met; usually through the winter.) At Back Forty restaurant in Manhattan, chef-owner Peter Hoffman uses frozen Maine shrimp, available year-round, in shrimp beignets. Another choice is pot-caught spot prawns, a large, sweet, cold-water shrimp from the Northern Pacific coast. With little to no bycatch, spot prawns are thought to be the most ecologically sound shrimp on the market. They’re also one of the priciest. Many chefs run these as seasonal specials.

Shrimper-chef alliances

Hurricanes Katrina and Rita in 2005 were an added hardship for shrimpers in the Gulf of Mexico, many of whom lost their boats to the storms. But the hurricanes also called attention to the ailing industry and for some, resulted in renewed market strategies, including direct sales to restaurants. “Selling to chefs allows me to stay in business,” says Louisiana shrimp boat captain Ray Brandhurst, who works his state’s inshore shrimp fishery and with his wife Kay has been shipping fresh shrimp to restaurants since right after the storms.

The Brandhursts are also involved in the White Boot Brigade, a group of Louisiana shrimpers who travel the country raising awareness and developing markets for their product.

Unlike shrimp caught in deep ocean waters by offshore trawlers, Louisiana shrimpers work close to shore near estuaries where fresh and salt water mix and form a brackish water that gives the shrimp a sweet, briny flavor. The product is unique, sustainable, and in a position to command higher prices in boutique markets, says New Orleans-based chef and activist Poppy Tooker.

Chef-consumer alliances

Restaurants can be key markets for fresh, sustainably caught shrimp, especially when the chef can pass some of the added cost onto willing consumers. Robert Stehling, who pays twice as much for the Carolina shrimp sold to him by a local husband-and-wife team than he would for imported Asian shrimp, says his customers are “happy paying more,” because they trust Stehling and know his food is carefully sourced. Still, a close attention to portion size and other costing measures keeps Stehling’s overall price point low enough to not alienate his clientele.

For chefs to successfully pass the increased cost on to their customers, they must effectively market the story behind the product, says Tim O’Shea of CleanFish, a seafood purveyor based in San Francisco whose Laughing Bird white shrimp from a family business in Belize is sustainably farm-raised. “If the story is good and the taste is fabulous,” he says, “people will start to connect the dots and understand what they’re paying for.”

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Chefs Collaborative
89 South St., Lower Level
Boston, MA 02111
(P) 617.236.5200
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