



What's Cooking

A QUARTERLY PUBLICATION OF THE SOUTH CAROLINA AQUARIUM'S

----- Sustainable Seafood Initiative -----



2011, Issue 4

Upcoming Events

SSI Dinner Series

January 9 - The Boathouse at Breach Inlet

February 25 - Middleton Place Restaurant

March 3 - 39 Rue de Jean

April 22 - Sea Island Grill

Partner Updates

Congratulations to FIG, our newest Platinum Partner. Carolina's, The Boathouse at Breach Inlet, Amen Street and Lana have renewed their Platinum certifications, and Cotton Grill has renewed its Gold certification. Twenty percent of our SSI partners have had their menus assessed and are certified as Platinum and Gold Sustainable Seafood Partners. If you are interested in an assessment please let us know.

Seasonal Seafood Feature: Vermilion Snapper

Vermilion snapper are the most commonly harvested snapper off the southeastern coast. They are smaller than their cousin, the American red snapper, but are far more plentiful. Vermilion snapper reach maturity at a young age and small size, making them resilient to fishing pressure. The South Atlantic vermilion snapper population is not overfished but the rate of fishing in the late 2000s was too high, thus in 2010 the Annual Catch Limit was lowered to a level that was expected to end overfishing.



Image credit: Duane Raver

Other regulations include a minimum size limit of 12 inches and a limit on the number of fishermen allowed to harvest and sell vermilion snapper. Vermilion snapper are caught with

vertical hook and line, one of the most environmentally-friendly fishing gears. There is little to no interaction with seafloor habitats and virtually everything that is caught holds some market value and is retained for sale, unless legally required to be discarded.

On the Menu - On the Plate

Every couple of years the media focuses in on seafood labeling, usually after a conservation organization, researcher or group of students collects seafood from retail markets or restaurants and sends samples away for DNA testing. The results usually show that one quarter to two thirds of the seafood products are something other than what they were sold as.

Mislabeling can occur during any step in the seafood supply chain, and occurs for different reasons. Sometimes mislabeling is intentional, to deceive the customer in order to get a higher price. It may also occur intentionally to replace a gastronomically unappealing name with something more appetizing to an export market. Patagonian toothfish was renamed Chilean sea bass (it is not a sea bass, nor it is always from Chile) and slimehead became orange roughy. But it happens at a local level too. Gag grouper (by far the most commonly harvested grouper in the Atlantic) is nearly always called black grouper when it reaches market, though black grouper is very rarely caught off the Carolina's with most of

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Our goal is to promote the conservation of fishery resources and the use of sustainable, especially local and domestic, seafood in restaurants.

the very limited harvest occurring in South Florida. This mislabeling is understandable because of the unappealing nature of the name “gag”. But the black grouper population is currently much healthier than gag, which experienced overfishing in recent years and is smaller than the target size. A more appropriate market name simply would be “grouper”, with well educated servers ready to educate curious guests about the type.

On the Menu



Black grouper

On the Plate



Gag grouper

Image credit: Duane Raver

Mislabeling can also occur when servers try to say what they believe their customers want to hear. It is important for chefs to teach their servers to be comfortable telling a guest they don't know the answer to a question, and that they will find the answer and return with more information. Seafood distributors may also say what their customers want to hear, so chefs must be diligent – being specific with requirements, and continually ask questions and review invoices.

Seafood mislabeling has run rampant through the industry for decades and most consumers know far too little about seafood to notice the difference. In the past decade the issue has only become more complex as we have imported greater amounts of seafood, often yielding a greater variety of products, from foreign countries. Currently, we import over 85% of seafood consumed in the U.S., which represents about 1,700 different species.

A wave of seafood fraud reports surfaced from 2006 to 2008. First, Consumer Reports magazine purchased 23 pieces of wild salmon, finding that only 10 were truly wild – the rest were farmed, which has many more negative environmental impacts. Then multiple media-led investigations in Florida during 2006 and 2007 found seafood mislabeling to be pervasive, with as much as 70% of “grouper” to be other species, including Asian farmed catfish (which are sometimes raised on farms using unapproved drugs and causing water pollution). In 2008, a group of New York City high school students conducted random testing and found that a quarter of sushi products were mislabeled. Also in 2008 a Stanford University professor published a study on an investigation in which his students purchased 77 filets of Pacific red snapper (a species in the eastern Pacific Ocean ranging from Mexico to Peru). In California, many species of native rockfish are often

called Pacific red snapper, even though they are not snappers. Yet, the students found that the mislabeling went further than the use of this common nickname and discovered a variety of products, from Pacific ocean perch (in the rockfish family) to tilapia, labeled as Pacific red snapper.

Many consumers expect the government to monitor the seafood supply, but resources are limited and a miniscule amount of seafood is inspected for mislabeling. A 2009 Government Accountability Office Report found that the U.S. Food and Drug Administration (FDA) wasn't doing enough to combat fraud and mislabeling of seafood. In response, the FDA recently announced a pilot program to begin DNA testing of seafood to minimize mislabeling. DNA from seafood samples taken by the FDA will be compared to a standardized DNA reference sequence library that is being developed by the Fish Barcode of Life Initiative. But still, the FDA is more likely to act at the import and wholesale supply chain levels rather than at the restaurant level, which is under the purview of local and state governments.

Florida is one of the few states that has a seafood fraud law on the books and enforces it. Inspectors check menus and compare them to box labels and invoices. Restaurants found to have misrepresented seafood can be subject to fines up to \$800 and have their license suspended or revoked. South Carolina also has a food mislabeling law in place. The original proposed bill would've made any mislabeling of food illegal, but it was simplified such that the final version, passed in 2008, only prohibits labeling an item as a product of South Carolina if it is not.

The media quieted on the subject of mislabeling until the spring of 2011, after the marine conservation organization Oceana, released a report entitled “*Bait and Switch: How Seafood Fraud Hurts Our Oceans, Our Wallets and Our Health*”. They followed up with an investigation of Boston retail markets, focusing on items known to be commonly mislabeled, and found that 18% were incorrectly identified.

In the fall, the Boston Globe published a two part story on seafood mislabeling. In “*Fishy Business*” and “*On the menu, but not on your plate,*” reporters bought fish from 134 restaurants and markets and sent it away for DNA testing to identify the species. They too focused on seafood items that are known to be commonly mislabeled and found that 48% of their purchases were incorrectly identified. They found that restaurants had far more incidents of mislabeling than

retail markets, and that sushi restaurants were the most common culprits. Mahi and swordfish were the only items to not ever be mislabeled and some of the most common misidentifications were of the iconic New England cod, which turned out to be everything from local haddock to Pacific cod to hake from South Africa. Ironically, in this case, each of the true species are more sustainable than the named species, Atlantic cod.

Red snapper was hardly ever red snapper. It was usually something much less expensive like a less popular species of snapper, ocean perch, or even tilapia. The sustainability of all of these products varies based on species and origin.

On the Menu



Red Snapper
Image credit: Duane Raver

On the Plate



Vermilion Snapper
Image credit: Duane Raver



Ocean Perch
Image credit: FAO



Tilapia
Image credit: FAO

Asian catfish masqueraded as flounder, and an item described as containing yellowfin tuna (with healthy populations in most of the world) surprisingly contained southern bluefin tuna (an overfished species). A fine dining establishment listed butterfish on the menu, but the species served was actually sablefish from the Pacific, a very sustainable product. Along the Pacific coast, sablefish is often called butterfish, but there is also a fish named butterfish caught in New England, which, incidentally, is overfished. The use of regional names, like butterfish for sablefish can result in confusion.

One of the most concerning mislabelings, because of potential health impacts, was the labeling of escolar as "white tuna". This is common practice in sushi restaurants and has been catching on in the rest of the restaurant industry, where escolar is also sometimes called butterfish. Escolar is not a tuna, nor is it a butterfish, and the application of the name white tuna could lead consumers to believe that it is albacore tuna (labeled as white tuna when canned). Albacore is

caught around the world and sustainability varies by region, but escolar is virtually unmanaged throughout its range. The health concern with escolar is its

On the Menu



White Tuna

On the Plate



Escolar

Image credits: Fish Album

high content of oil and waxy esters that cause it to have a laxative effect. It is generally recommended that an individual consume no more than 4-6 ounces of escolar at a time, but smaller amounts can affect sensitive individuals. Sale of escolar is banned in some countries such as Japan and Italy. In addition, a closely related species called oilfish, with an even higher oil content, is sometimes mislabeled as escolar. Ironically, one of the restaurants selling escolar as white tuna in Boston was a seafood buffet.

Consumer Reports soon followed with another report, in October of 2011, focusing on seafood bought at restaurants and retail stores in New York, New Jersey and Connecticut. They found that more than 20% of seafood items were unlabeled, mislabeled or misidentified, with some of the most common errors involving salmon, sole, red snapper and catfish.

Environmental sustainability is deeply dependent on the species and origin, and incorrect information makes it difficult for chefs and consumers to make responsible choices. Swordfish harvested in the U.S. and Canada are considered sustainable because of strict conservation regulations concerning the fishing gear, which have drastically reduced the bycatch of non-target species such as juvenile swordfish and sea turtles. But most countries do not fish with these same methods, making most imported swordfish unsustainable.

Even within the U.S., origin is important. Pacific and Atlantic halibut are two different species with drastically differing sustainability. The Pacific halibut population is very healthy and the longline gear used to catch them has little impact on their habitat. Conversely, the Atlantic halibut population is extremely depleted and the trawl gear that catches them has a greater impact.

And finally, even within the same region, mislabeling can confuse sustainability-minded individuals. Atlantic sea scallops are primarily harvested with dredges – heavy metal nets dragged across the seafloor. While this gear is strictly regulated to minimize the negative impacts, it is still a less sustainable choice than scallops

that are hand-harvested by SCUBA divers - called "diver scallops". But the seafood industry often uses this name for large scallops – even though true diver scallops comprise less than 1% of the harvest, and are generally only available during the winter months in New England. Chefs and consumers that feel the environmental impact of dredging is not acceptable are misled by the "diver scallop" label.

Most importantly, mislabeling can have implications on health. Today, many people consume seafood for the health benefits of omega-3 fatty acids. When something like tilapia or Asian catfish is substituted for grouper or snapper, the consumer is ingesting far less of the beneficial fat than intended.

Mislabeling can pose overt health risks as well, due to contaminants, toxins and allergens. In 2007 a few people in Chicago got sick after eating what they thought was monkfish. It was actually pufferfish imported from China, which can have toxins in the flesh, but mislabeled to avoid import restrictions.

In addition, some seafood products can contain higher concentrations of mercury. The majority of consumers are not at risk from these levels of mercury, but pregnant women and nursing mothers should avoid some products. When seafood is mislabeled (even based on the origin: Gulf of Mexico tilefish should be avoided due to mercury concentrations, but Atlantic tilefish is safe - and more sustainable) such vulnerable groups are not able to avoid the products they should.

In addition, some people are allergic to specific species, not just shellfish or fish in general. The Food Allergen Act of 2004 requires that seafood species names be included on product labels to notify consumers who might be allergic to a particular species, but this law currently is not enforced.

After the 2011 media blitz in New England, U.S. Representatives Barney Frank and Edward Markey, both of Massachusetts, requested that the Federal Trade Commission get more involved in species substitution and mislabeling because they believe this seafood fraud likely qualifies as an "unfair and deceptive act or practice" under Section 5 of the Federal Trade Commission Act. The request is pending.

Two valuable resources for chefs concerned about mislabeling are FishBase and the FDA Seafood List. FishBase (www.fishbase.org) is a searchable database of nearly every known fish species in the world. It

contains basic information such as common name, Latin scientific name (which is unique to every species), images, geographic origin, and biological characteristics. This site is helpful for identifying exactly what species of fish you may have in your kitchen.

The FDA Seafood List (most easily found simply by typing "FDA Seafood List" into an internet search engine) is a searchable database of names that the FDA considers to be acceptable market names for seafood products sold in the U.S. While there is no legal obligation to use these names, it offers a way to avoid confusion and the possibility of mislabeling.

The information given on The Seafood List includes the *Acceptable Market Name*, the *Scientific Common Name* (which is also an acceptable market name), the *Scientific Name* (the Latin name) and the *Vernacular Names*, which are commonly recognized local or regional names for a species. According to the FDA, a vernacular name is NOT an acceptable market name, but is only shown to help with cross-referencing or to help users identify a species in question.

✓	✓	✗
ACCEPTABLE MARKET NAME	SCIENTIFIC COMMON NAME	VERNACULAR NAME(S)
Snapper	Vermilion Snapper	Beeliner/ Clubhead Snapper/ Night Snapper

Source: FDA Seafood List

Seafood consumers have become accustomed to the limited variety of farmed proteins – beef is beef, chicken is chicken, and pork is pork. Within the local and sustainable food movement there is now a move back towards identifying different breeds of one species. But most seafood mislabeling is of completely different species. Should a chef put bison on a menu and serve a guest beef? How about changing the name of chicken to white duck? What if a supplier did these things and charged a premium price for the product?

There is so much variety within the world of wild seafood and it can be intimidating to consumers who are not used to such variety. Thus it falls to chefs to help them become more comfortable with new products. Often, sustainability attributes can serve as a marketing advantage for new products. The variety of wild seafood should be embraced and celebrated as we do with cheeses or wines, not hidden behind mislabeling with familiar names.

What's Cooking is a quarterly publication from the Sustainable Seafood Initiative at the South Carolina Aquarium. Please contact Megan Westmeyer at (843) 579-8502 or mwestmeyer@scaquarium.org with any questions or to be removed from this distribution list.