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Good News about Seafood in the Diet

It seems that every day brings new reports on the benefits a diet rich in omega-3 fatty acids.

Omega-3 fatty acids are also known as essential fatty acids or polysunsaturated fatty acids. These are essential to human health and must be obtained from food, particularly fish and certain plant oils. Fatty acids are critical components of cell chemistry, allowing proper function of cell membranes. Fish contains two important omega 3 polyunsaturated fats, eicosapentaenoic acid (EPA) and docosahexanoic acid (DHA). The body also converts some EPA and DHA from other sources: flaxseeds, pumpkin seeds, walnuts, soybeans and some dark green leafy vegetables.

Some recent reports have provided information on new types of health benefits from omega-3s, and some have added to previous knowledge:

• Reduced risk of Alzheimer's and other dementias in people with higher levels of blood DHA.
• Reduced risk of stroke with higher rates of consumption of omega-3s.
• Reduced risk of heart attacks and chronic heart disease with higher rates of consumption of omega-3s.
• Reduced blood trigyicerides with fish oil consumption.
• Alleviation of the symptoms of depression with fish oil consumption.
• Alleviation of symptoms from several inflammatory and autoimmune diseases, including rheumatoid arthritis, Crohn's disease, ulcerative colitis, psoriasis, lupus erythematosus, multiple sclerosis and migraine headaches.
• Improved behavior in some students with attention deficit disorder (ADD), attention deficit hyperactive disorder (ADHD), autism, dyslexia, Asperger's Syndrome and pervasive development disorder. The students were given fish oil supplements and put on a diet with reduced salt, transfatty acids, sugar, preservatives and additives.
• Greatly improved hand-eye coordination, and slightly better understanding, comprehension, and vocabulary in toddlers whose mothers took fish oil supplements during pregnancy.

Some of these recent findings aren't conclusive, so keep your eyes open for updates on any topics that are of special interest. A tremendous amount of research on fish oil and fatty acid health effects is being conducted all around the world, and results will be announced frequently.

Now, which seafood is best? Cold water fish have the highest level of omega-3s, but all seafood has some. Salmon typically has from 1 to 2 grams EPA+DHA per 3-ounce serving. Catfish has about 0.2, and shrimp 0.3.

For these reasons, the American Health Association recommends that everyone consume seafood twice a week. Seafood is good for your health because every meal will add to your intake of omega-3 fatty acids, and each meal of seafood means lower consumption of saturated fats.

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NOAA Fisheries Seeks Comments on Red Snapper

NOAA Fisheries Service is requesting comments from the public regarding the proposed temporary rule to address overfishing of Gulf of Mexico red snapper during 2007. The proposed rule would:

- Reduce the red snapper total allowable catch (TAC) quota to 6.5 million pounds (mp), resulting in a commercial quota of 3.315 mp and a recreational quota of 3.185 mp.
- Reduce the red snapper recreational bag limit from four fish to two fish per person per day.
- Prohibit the captain and crew of for-hire vessels from retaining the recreational bag limit.
- Reduce the commercial minimum size limit from 15 inches to 13 inches total length.
- Establish a target red snapper bycatch mortality reduction goal for the shrimp fishery that equates to 50 percent of the bycatch mortality that occurred during 2001-2003 and a level of shrimp effort equal to that observed in the fishery in 2005.

The Gulf of Mexico red snapper stock is classified as "overfished and undergoing overfishing." Under this classification, the Magnuson-Stevenson Act requires action to rebuild the population by addressing the multiple sources of fishing mortality that influence the status of this stock. Mortality factors include the commercial and recreational red snapper fishery and the shrimp trawl fishery, which takes red snapper incidentally when harvesting shrimp.

At the August 2006 Gulf of Mexico Fishery Management Council meeting, the council voted to delay consideration of regulatory actions needed to address red snapper overfishing until January 2007 when additional data and information are available. The council's decision to postpone regulatory action prevented NOAA Fisheries Service from implementing any permanent regulations proposed by the council in time to address overfishing during 2007. NOAA Fisheries is concerned that if overfishing continues through 2007, then substantially more severe harvest reductions will be required in 2008 to end overfishing within the time frame the council approved in the red snapper rebuilding plan. Consequently, NOAA Fisheries Service has determined the proposed interim measures are intended to address overfishing of red snapper during the 2007 fishing year.

There has been considerable discussion among affected stakeholders since the agency announced its intent to develop an interim rule for the 2007 fishing season. The public comment period on the proposed temporary rule will extend through the last day of the January 2007 council meeting to allow members to review the issue in light of that input and the provisions of the proposed rule. NOAA Fisheries Service is encouraging the council to carefully consider the proposed temporary rule and, in making any suggested revisions, to ensure consistency with the mandates of the Magnuson-Stevens Fishery Conservation and Management Act. Similarly, the agency encourages the affected public to participate in the council process.

Written comments on the proposed rule must be received no later than 5 p.m., Eastern Time, on Jan. 26, 2007. More information on this proposed temporary rule and answers to frequently asked questions on red snapper can be found at http://sero.nmfs.noaa.gov.

Written copies of the proposed temporary rule may be obtained from:
NOAA Fisheries Service Southeast Regional Office
Sustainable Fisheries Division
263 13th Avenue South
St. Petersburg, Florida 33701

Electronic copies of the proposed temporary rule may be obtained from the *Federal Register* at www.gpoaccess.gov/fr/ index.html.

Comments regarding the proposed temporary rule should be sent to Peter Hood at NOAA Fisheries Service Southeast Regional Office at the address provided above. Comments may also be submitted via fax to: 727-824-5308, or by e-mail to: 0648-AT87.Proposed@noaa.gov. For e-mail comments, include in the subject line the following identifier: 0648-AT87.

Red Snapper Fishery Nears Privatization

On Jan. 1, 2007 after nearly two decades of stock assessments, a license moratorium, fishery management plans with multiple amendments, seasonal closures, and much socio-economic distress, the Gulf of Mexico Red Snapper commercial fishery will reach its final stage -- privatization. By definition, privatization is the transfer to private ownership of an economic enterprise or public resource that has been under government ownership. Many changes will become effective in January, which will make the fishery more economically stable and will offer some security to shareholders.

To date there are 139 Class I and 630 Class II red snapper permit holders in the Gulf of Mexico. Class I permit holders were allowed to land 2,000 lbs. per trip during open seasons while Class II permit holders were allowed to land 200 lbs. per trip. Under the new rule, there will be no classifications.

The commercial quota (2.55 million lbs for 2007) will be allocated to current permit holders based on share averages taken from historical landings. A share is the percentage of the total quota that each shareholder will be allotted. An allocation is the annual poundage that each shareholder is allotted in January of each year. Shares and allocations may be sold among permit holders in good standings. In order to prevent anyone from controlling a monopoly share in the fishery, no person or corporation will be allowed to own at any time IFQ shares exceeding the maximum share initially issued to any one person for the 2007 fishing year. The minimum allowable share sale will be .0001 percent, which in 2007 equates to 2.5 lbs.

A person with an allocation can harvest fish at any time during the year. There is no use it or lose it clause, the share (percentage) will not change unless sold. However, any unused annual allocation is lost if not harvested by Dec. 31.

The fishery will be totally managed electronically via Internet, cell phone and phone lines. Each shareholder and dealer will have a computerized account set up in his/her name. A PIN and password will be required to access the account. At the time of sale, a shareholder's allocation will be debited instantaneously. Even share and allocation sales will be real-time.
Each vessel permitted to participate in the red snapper fishery will be required to have a vessel monitoring system (VMS) onboard and operational at all times. The VMS operates via satellites and gives the exact location of the vessel at all times. However, the VMS requirement has been delayed until March 7, 2007. The delay is necessary to (1) allow fishermen and approved vendors time to purchase, install, and activate approved units; (2) allow red snapper individual fishing quota (IFQ) participants time to receive information about their initial share and allocation under the Gulf red snapper IFQ program, and thus evaluate their overall profitability versus overall costs of VMS; and (3) allow fishermen more time to make a reasonable business decision on renewing and/or transferring their permits.

Upon leaving port, the captain of the vessel must hail the NMFS office and notify of fishing activity. When returning to port to unload red snapper, the captain must call NMFS within 3 to 12 hours of unloading. During the sale transaction, the dealer is required to collect and remit to NMFS, a 3 percent cost recovery fee on the value of the red snapper landed. In order for red snapper to be shipped from a dealer's location, an approval code must be given to the shipment listing its volume.

Once any problems with the system are ironed out the Gulf of Mexico red snapper fishery will be one of the most efficient, economically stable, closely monitored fish harvest in the gulf.

– **Kevin Savoie**
ksavoie@agcenter.lsu.edu.

New Shrimping Regulations Begin in March

Beginning March 26, 2007, vessels fishing for shrimp in federal waters of the Gulf of Mexico must have a new GOM Moratorium Shrimp Permit onboard. Additionally, vessels fishing for royal red shrimp must also have a Royal Red Endorsement.

Open-access shrimp permits currently in effect will no longer be valid after March 25, 2007, even if the expiration date on it indicates otherwise. The new permit will be the only valid permit for shrimping in GOM federal waters beginning March 26, and the new permit must be on the vessel.

Applications for the new permit should be submitted at least 30 days before it is desired. The deadline for submitting applications for the new permit is Oct. 26, 2007.

Forms that must be completed and submitted for the new shrimp moratorium permit are available at http://sero.nmfs.noaa.gov/sf/permits.htm.

Plastic Pollution in the Ocean

Frolicking in the water and playing in the sand – the scene for a relaxing day in Grand Isle, but something is unsettling. Perhaps it is the drink bottles washing ashore, or maybe it is the slimy bag that rubbed against your leg. Regardless, the picturesque day you envisioned just doesn't seem right. For those of you who have ventured to any of Louisiana's coastal beaches, the sight of plastic litter is probably easy to recall. Besides being an eyesore, this long-lasting debris is perhaps creating more problems than meet the eye.

According to a recent report by a team of British researchers, microscopic particles of plastic could be poisoning the oceans. They report that small plastic pellets called "mermaids' tears", which are the result of industry and domestic waste, have spread across the world's seas. The scientists originally found the debris on UK beaches and in European waters, but have now replicated their finding on four continents including multiple sites on U.S. coasts.

Because sturdy and durable plastic does not biodegrade, it remains in the environment for possibly hundred of years. Eventually the larger particles will fragment into smaller particles, but this mechanical degradation does not eliminate the presence of these "mermaids' tears." Scientists are worried that these fragments can get into the food chain.

Dr. Richard Thompson at the University of Plymouth is leading research into what happens when plastic breaks down in seawater and what effect it is having on the marine environment. He and his team have found plastic particles smaller than grains of sand, and estimate there are 300,000 items of plastic per km2 of sea surface and 100,000 per km2 of seabed. The scientists also conducted experiments on three species of filter feeders (barnacle, lugworm and common amphipod), and found that all three readily ingested plastic as they fed along the seabed.

Besides the unknown effects of plastic consumption by species low on the food chain, there are others problems related to plastic in the marine environment. One major problem is the accumulation of harmful hydrophobic chemicals, such as PCB's and other polymer additives, which may accumulate on the surface of the sea and latch on to plastic debris. These potentially toxic substances can bioaccumulate up the food chain resulting in negative health effects in human consumers.

Another negative aspect of plastic debris is the effect on the commercial harvest of seafood. A large plastic item, such as a trash bag, can catch on the turtle excluder device (TEDs) on shrimp nets, resulting in a significantly reduced catch. This is very frustrating for fishermen, and can have serious economic impacts besides the environmental and aesthetic consequences.

The plastic debris that is already out there is impossible to clean up completely, and will remain with us for decades. Solving the problem can begin simply by properly disposing of waste, and picking up litter that is already present. A seemingly small step, once taken by many people, will help encourage our neighbors and industries to take strides in ensuring a beautiful beachside sunset for our children and grandchildren.

– **Craig Gauthreaux**

Source: Ayre, Maggie. "Plastics 'poisoning world's seas'". www.news.bbc.co.uk.

Pompano Treasure

Florida pompano, *Trachinotus carolinus*, are attractive marine finfish with greenish-gray backs, shading to silvery sides, and occasionally yellow on the throat, pelvic, and anal fins. These relatively small fish have short, deep flattened bodies, and are renowned for their tenacity when hooked and delectability on the dish. This species is important recreationally, but by bringing in one of the highest prices (per pound) of any marine food fish in the continental United States it has drawn much commercial fishing and aquaculture attention. Unfortunately for commercial fishermen, the small stock size and elusiveness have resulted in routinely small catches. However, their natural environmental flexibility and adaptability to various culture systems and formulated feeds have encouraged aquaculture attempts over the last five decades.

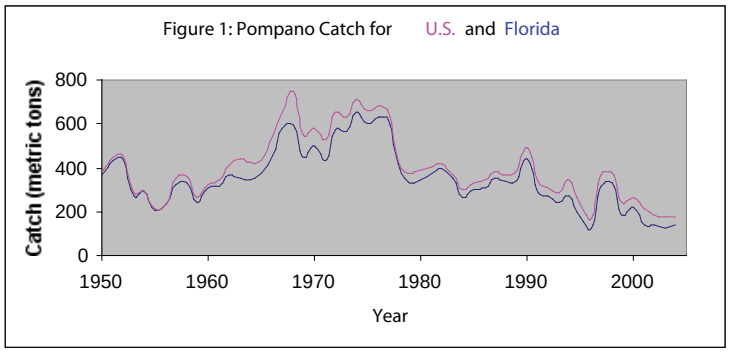
Florida pompano are found in the western Atlantic coastal waters from Cape Cod, Massachusetts, to southeastern Brazil, including the Gulf of Mexico and Caribbean coasts of the Americas, and occasionally in the Greater Antilles. They are uncommon north of Chesapeake Bay, and absent from the clear waters of Bermuda and the Bahamas. Despite making northern and southern migrations due to temperature change (they are rarely found in water temperatures below 19^{o}C), they are found year-round off of the Florida coasts.

Life history and ecological requirements of the Florida pompano, based mainly on populations in U.S. coastal waters, are not completely understood. They apparently have a prolonged spawning season, lasting from February to September. In the Gulf of Mexico there is a peak in recruitment in April/May and a smaller wave in September. After spending their first month at sea, larvae move inshore to the beaches where they remain until declining water temperature causes them to move offshore in the late fall.

Florida pompano juveniles exhibit very rapid growth rates for length and weight; as the fish get older the length increase slows, but the weight increase continues. Researchers in Florida determined that pompano lived to 7 years on the Atlantic coast and 5 years on the Gulf coast, with roughly 50 percent achieving sexual maturity as early as year 1 (300 mm–325 mm FL) and 100 percent maturity by year 3 (375 mm–400 mm FL). The average catch size of Florida pompano is 1-3 lbs, with the record over 8 lbs. The Louisiana record pompano was taken in winter of 1969, and weighed 8.5 pounds.

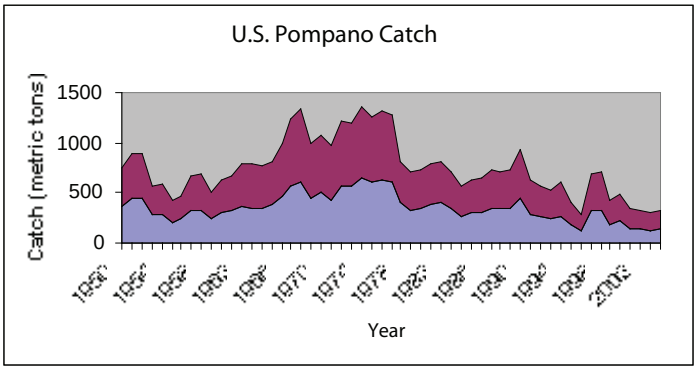
Juvenile Florida pompano utilize the surf zone of exposed, sandy beaches as a preferred nursery habitat. Pompano have small mouths that are subterminal (below the “nose”) and protrusible (able to extend outward). They also have and well-developed pharyngeal plates – hard structures in the throat for crushing crustaceans. Juvenile pompano are daytime feeders that select a wide variety of planktonic and benthic organisms, yet become increasingly selective as they grow. Adults are found in inshore and nearshore waters, especially along sandy beaches, oyster banks, over grassbeds, near oil rigs, even in water as deep as 130 feet, and feed primarily on mollusks, crustaceans, and small fish.

Looking at the other end of the food chain, juvenile pompano are undoubtedly eaten by larger fish and beach-foraging birds, particularly brown pelicans. As adults, the only regular predator on the pompano is probably humans. Pompano can be parasitized by monogenetic trematodes, protozoans, and metazoans, which can make problems in aquaculture operations.



The National Marine Fishery Service has kept commercial catch records for Florida pompano since 1950. The total U.S. catch is comprised almost entirely from the state of Florida, and has fluctuated over time. Currently, the Florida Fish and Wildlife Conservation Commission classifies the species as overfished with overfishing occurring in that state. Commercial fishing was halted in Florida in 1995 in an effort to protect the species, and additional recreational catch limits imposed.

A few specialized Louisiana commercial fishermen have historically taken part in a very limited strike-net fishery, mostly in the Breton Sound area. These fishermen have traditionally "hunted" pompano on sandy beaches, running net skiffs along until pompano are sighted jumping into the air as they escape the prop-wash. And a few recreational fishermen have learned some techniques that can put pompano in their ice chests fairly consistently. These folks often fish shallow rigs in sandy-bottom areas with small jigs tipped with bits of shrimp.



As far back as the late 1960s, research and commercial projects have attempted to culture Florida pompano, but were met with little success. Over time there has been a better understanding of the requisite spawning techniques and culture conditions. With the consistently high price of Florida pompano (Figure 2) combined with the relatively low supply, the economic incentive for pompano culture still exists. A number of studies have been conducted recently on husbandry and production issues (such as the nutritional requirements) of Florida pompano in order to formulate effective feeds and to economically produce fish for the market. This information can be combined with the technological improvements in cage culture systems, which may be the most effective method of pompano growout; giving high growth rates, high yield, and resistance to disease. This type of culture system is one that is recommended in the National Offshore Aquaculture Act of 2005 (which is still awaiting Congressional approval), and demonstration of successful, sustainable offshore Florida pompano production could serve as a milestone for pompano aquaculture and other marine fish culture.

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THE GUMBO POT

Cream of Shrimp Stew

Jessica Schexnayder

Ingredients

1 lb 70/90 count shrimp
1 onion, chopped
1 stalk celery, chopped
1 bell pepper chopped
1 can cream of shrimp soup
1/4 cup extra virgin olive oil (or substitute 1 stick of butter)
creole seasoning
1/2 half cup of water

Directions

Season shrimp to taste with creole seasoning. Saute onion, celery and bell pepper in oil over medium heat until onions are slightly translucent. Add shrimp and cook until pink, stirring frequently. Mix soup and water togerther in a seperate bowl. Add to shrimp and vegetables. Continue to cook over medium heat until heated through. Serve over rice with french bread.

Serves 4

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