Ready to Put Lionfish on the Menu?

Lionfish are native to the warm waters of sub-tropical and tropical Indo-Pacific regions. So why are they rapidly becoming residents along the cooler Southeastern Atlantic coast from Florida to NC - even as far north as Long Island, NY? This is what researchers are trying to find out. With no natural enemies, these predatory, brightly colored and well-armed fish (with poisonous spines to catch their prey), are migrating farther north, increasing in numbers, and beginning to have an adverse effect on native fish populations by reducing the food resources for juvenile stages of important reef fish. Studies are being done collaboratively with NCSUs College of Veterinary Medicine and NOAA on monitoring lionfish movement, density, distribution, life history, temperature tolerance and more.

But just maybe these invaders can be put to good use - as food. In addition to the scientific research being conducted, the Seafood Laboratory staff has been testing recipes utilizing these intruder fish. With assistance from NOAA and a local diving business in Beaufort, lionfish were caught,
poisonous spines clipped, scaled, filleted and prepared in five recipes at the Lab. The results have been delicious. See *Seafood Tastes & Tips* below for a description of the fish and a sample recipe.

As she prepares a lionfish recipe, Dot Whitley (left), Seafood Lab Kitchen volunteer, is filmed and interviewed by Discovery Channel Canada producer Agatha Rachpaul.

News of this invasion and subsequent research has traveled fast. In addition to local and state publicity, *Discovery Channel of Canada* got wind of the research and recipe testing and visited CMAST in July to film and interview the folks involved. The segment is to be aired sometime in the fall on *Daily Planet*, a daily science news program. We were promised that a web site link would be made available so Americans would be able to watch. Be sure to "stay tuned" for more info.

**Seafood Blog Launched**

*Mariner's Menu: Blog Features Fresh Seafood Ideas*

**Mariner's Menu**, the new blog based on Joyce Taylor's popular book of the same name, offers consumers a new way to get seafood recipes, learn about local fisheries and traditions, and stay up to date on safety, handling and preparation tips. The project is in response to the increase of consumers
eating healthier and including more seafood in their diets.

Partners on the project include North Carolina Sea Grant, North Carolina State University Seafood Laboratory, Core Sound Waterfowl Museum, and North Carolina Division of Marine Fisheries.

Follow Mariner's Menu online at www.marinersmenu.org.

**Commissioner's Food Safety Forum**

The 5th Annual Commissioner's Food Safety Forum was held in Raleigh on August 18, 2009. Presentations were made on the future of food safety from national food safety experts, N.C. Congressional Delegation, industry leaders, regulators, public health officials, emergency management, and academia.

A special seafood presentation in "Food Entrepreneurship: Facilitation Innovation Through Partnership" was given by David Green and Barry Nash.

To download presentations from the forum: www.ncagr.gov/ncfoodsafetyforum/.

**GOVERNMENT UPDATES**

**Ragan Named to Lead NCDA Food and Drug Protection Division**

State Agriculture Commissioner Steve Troxler has named Dan Ragan director of the Food and Drug Protection Division at the N.C. Department of Agriculture and Consumer Services, effective September 1. Ragan replaces Joe Reardon who has been named Deputy Director in the Division of Federal-State Relations, Office of Regulatory Affairs (ORA) at the US FDA.

In other NCDA news, longtime NCDA staffer Johnnie Peele, Food Regulatory Supervisor for Eastern NC, retired after 38+ years of
service. Larry Gabriel, Food Compliance Supervisor and Food Administrator in the Food and Drug Protection Division in Raleigh has also retired.

**FDA Sets Deadline for 483 Forms**

The Food and Drug Administration announced starting September 15, 2009, a 15-day deadline for businesses to respond to form FDA 483, Inspectional Observations, will be in force. This will aid in a timelier issuance of warning letters by the FDA in support of public health protection.

The FDA issues a form FDA 483, upon completion of an inspection, to notify an establishment of any objectionable conditions relating to products and/or processes, or other violations of the Federal Food, Drug, and Cosmetic Act and related acts that were observed during the inspection. As allowed by FDA regulations, a business may respond to the inspection findings. Responding to a 483 form is not required but is a highly recommended post-inspection follow-up activity as it provides the business an opportunity to outline any correction activities or to formally disagree with an observation, prior to the issuance of a warning letter.

Click here to view the FDA notice in the Federal Register, Docket No. FDA-2009-N-0335.

If you need assistance in filing a response to a 483 Form, contact David Green at the Seafood Lab, 252-222-6304.

**House Passes Food Safety Act**

By a 283-142 vote on July 30, the House passed the Food Safety Enhancement Act of 2009 (HR 2749), a food safety bill that will require more government inspections and oversight of food manufacturers and give the FDA new authority to order recalls. The Senate must vote on the bill before it can be signed into law by the president.

Some Highlights of HR 2749:

- Creates an updated registry of food facilities;
- Requires annual registration fee of $500 per food facility;
- Requires safety plans for food facilities;
- Increases inspections for highest-risk facilities to once every six to 12 months;
- Directs FDA to issue regulations for fruit and vegetable
production and harvesting;

- Directs FDA to issue traceability regulations; and
- Grants FDA new authority to subpoena records related to possible violations.

[Click here](#) for more information about the bill.

**Study Reveals Mercury Contamination in Fish Nationwide**
*from USGS News Release August 20, 2009*

Scientists detected mercury contamination in every fish sampled in 291 streams across the country, according to a U.S. Geological Survey study released today.

About a quarter of these fish were found to contain mercury at levels exceeding the criterion for the protection of people who consume average amounts of fish, established by the U.S. Environmental Protection Agency. More than two-thirds of the fish exceeded the U.S. EPA level of concern for fish-eating mammals.

[Click here](#) for more information on the findings.

**USDA Announces Available Funds for the Value-Added Producer Grant Program**

The USDA is now accepting applications for the Value-Added Producer Grant program. Authorized in the 2002 Farm Bill, the VAPG is a competitive grants program administered by the Rural Business Cooperative Service at USDA.

Visit the [USDA VAPG](#) or [Grants.gov](#) web sites for further information, application forms and requirements. The deadline for submitting applications is **November 30, 2009** for reserved and unreserved funds. Contact Bruce Pleasant, USDA Business Program Specialist at 919-873-2031 for assistance or if you need to discuss your project. Applications that are not eligible or complete and received by the deadline will not be considered for funding.

[back to top](#)

**INDUSTRY NEWS**

**Entrepreneur Workshops Announced**
Workshop dates have been set for the "Developing a New Food Business" workshops, sponsored by NC Cooperative Extension, the NCSU Departments of Agricultural Economics and Food, Bioprocessing and Nutrition Sciences. Attendees will explore how to start a new food business by speaking with successful producers and Extension personnel.

- **December 1-2, 2009**  
  [New Hanover County Extension Center](#)  
  Contact: Al Hight, CED, 910-798-7660

- **March 23-24, 2010**  
  [Pitt County Extension Center](#)  
  Contact: Mitch Smith, CED, 252-902-1700

- **March 30-31, 2010**  
  [Buncombe County Extension Center](#)  
  Contact: Cathy Holenstein, CED, 828-255-5522

- **May 2-3, 2010**  
  [Orange County Extension Center](#)  
  Contact: Fletcher Barber, CED, 919-245-2050

Contact [Lisa Gordon](#) at 919-515-2956 for registration information, or [click here](#) for more information.

Workshop coordinators are [Dr. Gary Bullen](#), Extension Associate, NCSU Department of Agricultural Economics and [Dr. David Green](#), Department Extension Leader, NCSU Department of Food, Bioprocessing and Nutrition Sciences.

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**CALENDAR OF EVENTS**

**September 15-18, 2009**  
[TAFT 2009](#)  
3rd Joint Trans-Atlantic Fisheries Technology Conference  
Copenhagen, Denmark  
Contact [David Green](#), 252-222-6304

**October 6, 2009**  
Basic Seafood HACCP Segment II Workshop  
Fletcher, NC  
[Online HACCP training](#) required prior to attending  
Contact [Jill Miller](#), 252-222-6334
SEAFOOD TIPS & TASTES

Lionfish on the menu . . .
As the world seems to be growing smaller, the availability of new foods and tastes change almost daily. But to find a new delicacy in one's own backyard is a treasure. Despite the fact that lionfish are becoming more abundant and threatening North Carolina's juvenile reef fish, they are hard to come by. They are not caught readily with hook and line, although some end up that way. Mostly it's divers who find them either using a net or spear. And they are not shy fish, since they have no natural enemies. (If you attempt this technique, be cautious of the spines which have a nasty venom - not life threatening, but uncomfortable to say the least!)

Tips . . .
Here's what the folks in the Seafood Lab have discovered so far. If you are fortunate enough to have lionfish end up in your kitchen, look forward to a white, somewhat firm flesh and a mild flavor - slightly similar to snapper. If you are cleaning them, be careful of the spines - the venom may still be active. And don't fear, there is no venom in the flesh. Depending on the size of your fish, you may find many small bones to contend with as you fillet, but it is worth the effort when you try the new Seafood Lab Kitchen recipe below.

And Tastes . . .
Broiled Lionfish with Garlic-Basil Butter

6 small lionfish fillets
1/4 cup margarine or butter, melted
salt
freshly ground black pepper
garlic-basil butter

Prepare Garlic-Basil Butter (recipe follows) and set aside.

Place fillets on broiler pan. Brush with melted margarine. Sprinkle lightly with salt and pepper. Broil about 4 inches from heat for 4-5 minutes or until fish flakes with a fork. Serve with Garlic-Basil Butter.

Garlic-Basil Butter

1/2 cup margarine or butter, softened
1 teaspoon pressed garlic
1 teaspoon finely chopped fresh basil
1 teaspoon fresh lemon juice
1/8 teaspoon salt

In small bowl, combine margarine, garlic, basil, lemon juice and salt. Allow to stand at least 1 hour for flavors to develop. Spread over warm fillets.