



## The toughest animal on earth

With fall underway, many animals such as the Louisiana black bear and alligator will begin consuming mass quantities of food in preparation for their upcoming winter hibernation. One type of “bear,” however, experiences an extremely unique and prolonged type of hibernation, sometimes for over 100 years and lives in water!

Tardigrades, also known as water bears, are a group of tiny invertebrates that inhabit all types of habitats on Earth, including wet habitats in Louisiana. They were first described in 1773 by German zoologist Johann August Goeze who called them *kleiner Wasserbar* meaning “little water bear,” as the physical appearance and style of movement resembles that of a bear. Tardigrades range in size from 0.3 to 1.7 mm, so they typically require the aid of a microscope to witness. They have a segmented and stocky body with stubby legs, each with several claws. They also have a tubular mouth with many hard and sharp stylets, which are used for piercing their prey. Tardigrades typically feed on algae, plants cells or other small invertebrates. They are eaten by amoebas, nematodes and other tardigrades.

Although more than 1,100 species of tardigrades have been described and live in almost every habitat on earth such as the deep ocean, tropical rainforests and even Antarctica, very little is known about these unique creatures. The most interesting aspect of these animals is their ability to withstand extreme environmental conditions, including temperatures below -383 °F or above 304 °F, no oxygen, levels of X-ray radiation exceeding the lethal human does by 1000 times, toxic chemicals and boiling alcohol.

They are able to survive in these harsh conditions by a process known as cryptobiosis, in which their metabolism stops and they essentially enter a death-like state, but is reversible once conditions improve. During these extended latency stages, tardigrades become immobile and their physical appearance may change drastically. Often, they will excrete a protective coating, or cyst, to envelope their body until conditions become favorable again.

While most species of tardigrades have evolved these abilities to survive in extreme environments, many scientists do not consider them true extremophiles as they are not adapted to live in these conditions. In fact, the longer an individual is exposed to harsh conditions, the likelihood of death

increases. However, this is not always the case as some species of tardigrades have been documented in cryptobiosis for 120 years before being regenerated! They were even the first animal to survive exposure to outer space when they were sent to space as part of a 2007 study which may help scientists better understand how humans and other organisms respond to the extreme stressors of space.

- **Jenessa Kay**

### **Whole Foods Market® hosts October Sea to Table Series**

Thursdays in October, the Whole Foods Market Arabella Station, Baton Rouge, Broad Street and Veterans stores will host sea-to-table tastings with local chefs, Louisiana Sea Grant, LSU AgCenter and Audubon Nature Institute Gulf United for Lasting Fisheries (G.U.L.F.). Attendees will tour their Whole Foods Market store's seafood department, sample fresh Gulf seafood, taste wine pairings and learn delicious ways to enjoy Gulf seafood at home. Registration is now available at [seatotable.eventbrite.com](http://seatotable.eventbrite.com). Cost is \$25 per person with all ticket sales benefiting Audubon Nature Institute G.U.L.F. and Louisiana Sea Grant.

- Thursday, October 2 from 6 to 8 p.m.  
Arabella Station • 5600 Magazine St., New Orleans, (504) 899-9119

Chef Alex Harrell, Sylvain  
Baked Louisiana oysters with mustard greens, pickled lemons, and bacon  
Pickled gulf shrimp with chilies and fennel

Chef Eman Loubier, Dante's Kitchen  
Fish in Calamari and Redfish on the Half-Shell

- Thursday, October 9 from 6 to 8 p.m.  
Baton Rouge • 7529 Corporate Blvd., Baton Rouge, (225) 218-0452

\* With Triumph Kitchen Students  
Chef Chris Wadsworth, Triumph Kitchen  
Chef Ryan Andre, City Pork II

- Thursday, October 16 from 6 to 8 p.m.  
Broad Street • 300 N. Broad St., New Orleans, (504) 434-3364

\* With Liberty's Kitchen Students  
Chef Kristen Essig, Meauxbar

Chef Bart Bell, Crescent Pie & Sausage Co.  
Redfish Courtbouillon and Gulf Seafood Pie

• Thursday, October 23 from 6 to 8 p.m.  
Veterans • 3420 Veterans Blvd., Metairie, (504) 888-8225

Chef Tenney Flynn, GW Fins  
Sautéed Red Snapper with Spoonbread and Jumbo Lump Crab Corn Butter  
Sautéed Shrimp with Mirliton Slaw

Chef Anthony Spizale, New Orleans Marriott Metairie at Lakeway  
Crispy Gulf Oysters Brussels Sprout Caesar Salad with Parmigiano Reggiano  
Jumbo Lump Louisiana Crab Cake Fresh Herbs and Light Crab Butter

“It’s a great opportunity to learn how seafood is sourced locally and various ways to enjoy Gulf species at home, while benefitting a great cause,” said Kristina Bradford, Louisiana community and media relations coordinator for Whole Foods Market. “We’ve truly enjoyed collaborating with Louisiana Sea Grant, LSU AgCenter, Audubon Nature Institute G.U.L.F. and area chefs to share information on more responsible fishing methods and great recipes to cook with Gulf seafood.”

“The fisheries in the Gulf of Mexico are unique and are such a large part of the heritage of this region,” said G.U.L.F. assistant director Julianna Mullen. “By working with Whole Foods Market and Louisiana Sea Grant, we can connect attendees of the Sea to Table Events and encourage them to support the men and women on the water who work so hard to bring us fresh seafood every day.”

## Crabbers Workshop

Our fourth Louisiana Sea Grant Crab Industry Workshop is coming.

WHEN: Nov. 12, 2014 from 8:30 a.m. to 2:30 p.m.

WHERE: Lake Pontchartrain Basin Maritime Museum  
133 Mabel Drive, Madisonville, LA 70447

COST: Free

Some of the topics include:

- Industry Updates- including new regulations
- Shedding
- Quality: sizing, economics of loss and size

## Lagniappe Fisheries Newsletter

Editor: Julie Anderson Lively

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- Farm to Table/ Slow Food/ Restaurant or Chef
- Value added
- Gear- Engine and Fiberglass Repair
- Direct Marketing Demo
- Shedding Demo

For more information or to register, contact: Twyla Herrington — [THerrington@agcenter.lsu.edu](mailto:THerrington@agcenter.lsu.edu) or (504 ) 858-9826, or Carol Franze — [CFranze@agcenter.lsu.edu](mailto:CFranze@agcenter.lsu.edu) or (985) 543-412

Registration is encouraged by Nov.1. Participation is limited to 50 attendees. Lunch is included.

### **17<sup>th</sup> Annual *Wild Things* Event Offers Something for Everyone**

The U. S. Fish and Wildlife Service will once again celebrate National Wildlife Refuge Week at the 17<sup>th</sup> annual Wild Things festival on Oct. 18 at the Southeast Louisiana National Wildlife Refuges Headquarters in Lacombe. Admission, parking and all tours and programs are free. Wild Things will take place from 10 a.m. until 4 p.m. at the Southeast Louisiana National Wildlife Refuges headquarters at 61389 Hwy 434 in Lacombe.

Now in its 17th year and still growing, Wild Things is one of the most popular nature/conservation events in the region. This free family event showcases the National Wildlife Refuges and hosts more than 40 guest organizations and individuals that share wildlife and conservation-oriented displays, presentations, and hands-on activities for the whole family.

Some new additions this year include more live animals to both touch and see, more guided tours, a new outdoor selfie photo station, and a Twitter based nature scavenger hunt that will get participants active and outside! The visitor center provides an opportunity to get out of the sun and learn more about the local area resources. The popular “hayride shuttle” will return, offering a fun way to get around the 110-acre site. The casting pond will also be back providing kids a place to try their luck hitting targets with spin-cast fishing gear. The Kids Tent hosts fun nature crafts and learning games, with face painting all day long.

## **GULF OF MEXICO REGULATIONS**

### **Recreational Gulf of Mexico Red Grouper Fishing Season is Extended**

NOAA Fisheries is implementing an in-season adjustment to the red grouper recreational fishing season that changes the closure date from Sept. 16, 2014, to Oct. 4, 2014, based upon updated landings. With this adjustment, the red grouper recreational season will close at 12:01 a.m., local time, Oct. 4, 2014 and remain closed until Jan. 1, 2015, unless changed in subsequent rulemaking.

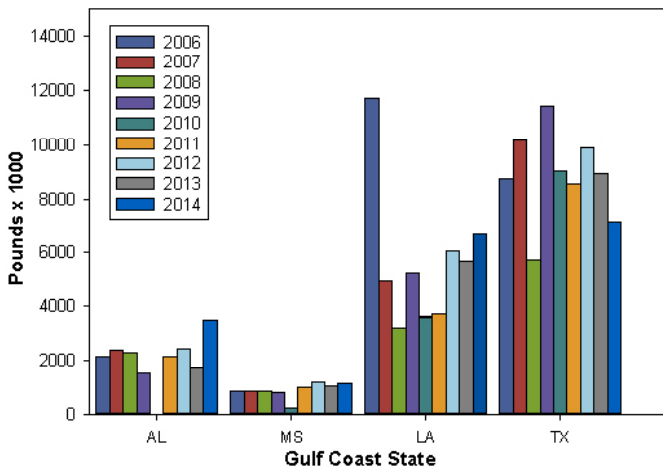
The recreational red grouper daily bag limit will remain at three fish per day.

This bulletin provides only a summary of the existing regulations. Full regulations can be found in the *Federal Register*.

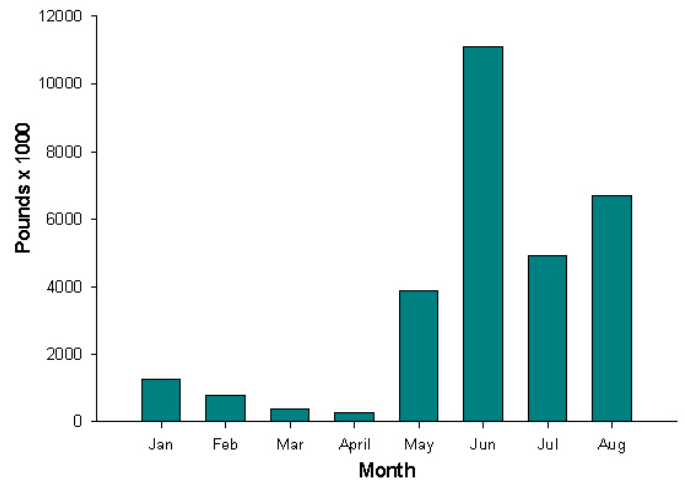
### Louisiana Shrimp Watch

Louisiana specific data portrayed in the graphics are selected from preliminary data posted by NOAA on its website. All data portrayed are subject to final revision and approval by NOAA. Shrimp landings are ex-vessel prices, inclusive of all species harvested. Missing, inadequate or withheld reports are portrayed as “zero” in these graphics. Price graphics reflect central Gulf states only (Texas and Florida are reported independently). For more information, please refer to: [www.st.nmfs.noaa.gov/st1/market\\_news/index.html](http://www.st.nmfs.noaa.gov/st1/market_news/index.html).

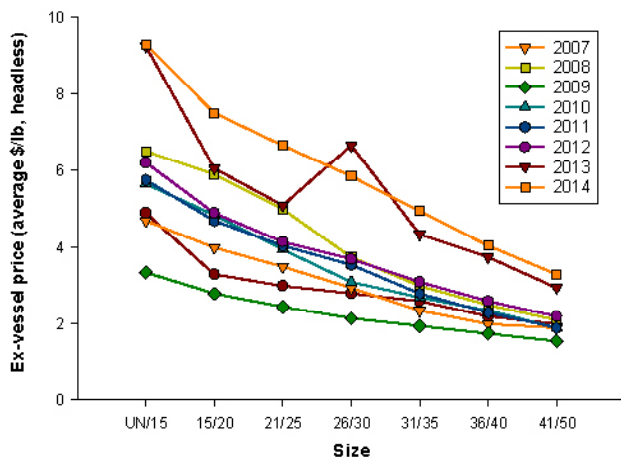
August Shrimp Harvest



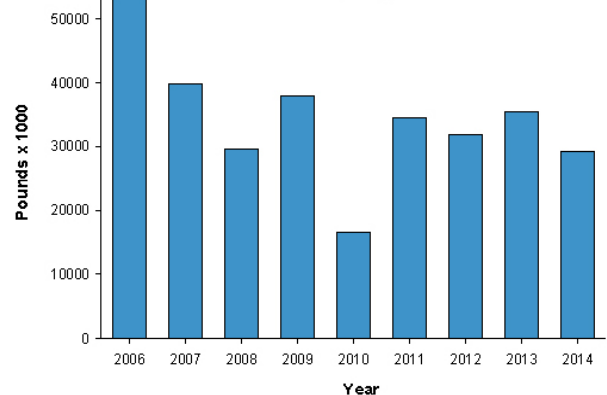
Louisiana 2014 Shrimp Harvest



August 2014 Northern GoM Shrimp Prices



Louisiana Year to Date Shrimp Harvest January- August



## Fish Gear Coordinates- August

In accordance with the provisions of R.S. 56:700.1 et. seq., notice is given that two claims in the amount of \$10,000.00 were received for payment during the period Aug. 1-31, 2014. There were 0 paid and 2 denied.

Latitude/Longitude Coordinates, Degree Decimal Minutes, of reported underwater obstructions are:

29 41.493	89 46.673	PLAQUEMINES
29 46.259	93 16.992	CAMERON

A list of claimants and amounts paid can be obtained from Gwendolyn Thomas, administrator, Fishermen's Gear Compensation Fund, P.O. Box 44277, Baton Rouge, LA 70804 or you can call (225) 342-9388.

## The Gumbo Pot

### Lemon and Herb Crusted Drum with Bok Choy

Recipe courtesy of *Louisiana Kitchen & Culture*. For more recipes or to subscribe to their magazine or free newsletter, please visit <http://louisiana.kitchenandculture.com/>

#### Ingredients:

- 4 teaspoons lemon zest, chopped
- 4 teaspoons fresh dill, chopped
- 4 teaspoons fresh parsley leaves, chopped
- 4 teaspoons fresh chervil leaves, chopped
- 2 teaspoons cracked black pepper plus more for seasoning
- 4 6-ounce Louisiana black drum fillets
- 1/4 teaspoon salt plus more for seasoning
- 4 teaspoons Dijon mustard
- 1 tablespoon vegetable oil
- 4 heads baby Bok Choy
- 4 tablespoons olive oil
- fresh lemon juice for serving
- Extra-virgin olive oil for serving

#### Method:

In a bowl combine the lemon zest, dill, parsley, chervil and black pepper. Season the fish with 1/4 teaspoon of the salt, then lightly brush each piece with 1 teaspoon of the Dijon mustard on one side. Firmly press the mustard-coated side of each drum fillet into the lemon-herb mixture. In a skillet (nonstick is useful here) heat the vegetable oil. Place fillets, coated side down, into the hot oil for 3 to 4 minutes or until crust turns golden brown. Flip and continue to cook for 3 minutes longer or until the

fish flakes easily. Meanwhile in a separate pan, place the Bok Choy cut side down. Add a little water to the pan to steam the Bok Choy until just tender, about 7 minutes. Remove the Bok Choy from the pan and toss in a bowl with olive oil and season with salt and pepper. When ready to serve, divide the Bok Choy among 4 plates and place 1 fish fillet over the top of each serving. Drizzle with lemon juice and extra-virgin olive oil to taste.

If you have a favorite seafood recipe that you would like to share, please send it to Julie Anderson Lively [janderson@agcenter.lsu.edu](mailto:janderson@agcenter.lsu.edu) for inclusion in future issues.





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We would like to hear from you! Please contact us regarding fishery questions, comments or concerns you would like to see covered in the Lagniappe. Anyone interested in submitting information, such as articles, editorials or photographs pertaining to fishing or fisheries management is encouraged to do so.

**Please contact Lagniappe editor Julie Anderson Lively at [janderson@agcenter.lsu.edu](mailto:janderson@agcenter.lsu.edu).**

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