THE MAGAZINE for YOUNG ANGLERS and CONSERVATIONISTS.

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Why is this **EXPLOSION** a GOOD thing?

Meet Mary Lee! OCEARCH GLOBAL SHARK TRACKER



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THE MAGAZINE for YOUNG ANGLERS and CONSERVATIONISTS

The largest marine conservation group of its kind, Coastal Conservation Association (CCA) is a non-profit organization made up of 17 coastal state chapters. CCA has been active in almost every national fisheries debate for decades and has been a driving force in state and federal fisheries management issues. With your continued support, CCA will continue to battle for the health and longevity of our coastal fisheries and for recreational anglers' interests in them.

Editor and Designer Heather Peterek Consulting Editors Pat Murray Ted Venker

What's Inside:

Run Redfish Run

All your bull red questions answered - what exactly is a bull, why do they run, and how to catch one!



Barotrauma!

Learn what it is and how this harmful phenomenon among deep water caught fish can be prevented.



Fishermen are excited about the new artificial reef made from a World War II Coast Guard ship.

Activity Time Test your skills with these fun challenges.

Try it or Buy it!

Try and master a new fishing knot or get some cool ideas for holiday gifts!

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This publication is sponsored by

Shark Tracker

Ocearch uses a global tracking system to follow and study big sharks (including Mary Lee) across the nation.

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Kids Fishin' Kids from all over the US show off their trophies.

ON THE COVER: CCA member and experienced angler, David Garcia, releases a huge bull redfish too big to reel in the boat! Photo by Mike Garcia.



Angler David Garcia, 8, after a long fight with a 34 inch bull redfish caught while fishing some jetties in Galveston, Texas

AGE LENGTH 1..... 12 inches 2 19 inches 3 24 inches 4 27 inches 5 30 inches 6 32 inches 7 34 inches

8 35 inches 9 36 inches

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The IGFA Junior World Record for red drum Is 50 pounds, 4 ounces, caught by Kristen Dize, age 9, in Chesapeake Bay, Virginia,

The black spot on their tail is meant to mimic an eye to fool predators into attacking the red's tail instead of their head, allowing them to escape.

The name 'red drum'' describes both their reddish color and the drumming sound they make during spawning. This drumming occurs when special muscles rub against the swim bladder - the muscles act as drum sticks and the swim bladder acts as a drum.



Since you are bottom fishing with natural bait it's likely you'll also catch some sharks

WHAT IS A BULL RED?

LDG

Adult redfish or red drum measuring more than 28 inches long are commonly called "bull" reds. They range from Massachusetts to Florida, and are most common along the Gulf Coast.

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WHAT IS THE BULL RUN?

Every year between August and November, adult bull redfish, some as early as age 3 and above, come together on Gulf beachfront passes to spawn. This time is known as the *bull redfish run, bull red run,* or *bull run.*

WHY IS THIS GOOD TO KNOW?

This is a very important stage in the life of a redfish, but at the same time, it gives you the oppurtunity to catch some big fish! Fishing for these big bull reds is something people along the Gulf Coast look forward to every year. Because of their size, bull redfish are basically a catch-and-release fish, so you get to have your fun fishing, but you also get to be a conservationist and let them go.

How Do I Catch a Bull ReD?

You catch these fish in many different ways; surf fishing off the beach, at a bridge or jetties, or from a boat. Fishing for big bulls is actually not very complicated. It basically involves casting a big piece of bait out and waiting for a hookup. Also there's no need for any fancy working of the bait to increase your chances of a strike, it's pretty much a waiting game.

While there are several man-made lures, such as spoons or jigs, that you can use to catch these bull redfish, the best way to hook them is with natural bait. Mullet, shad, shrimp, whiting, sandtrout and crabs are among some of the best baits to use for these fish. When fishing, you should check your bait every so often to make sure you haven't lost it and keep it fresh by changing it about every 30 minutes.

The best hook you can use for this type of catch-and-release fishing is a circle hook because it is safest for the fish. Circle hooks are designed to catch the fish's lip once they grab the bait and turn to run. Catching a bull red like this reduces the chance of an injured, deeply hooked fish and makes it easier to unhook and release.

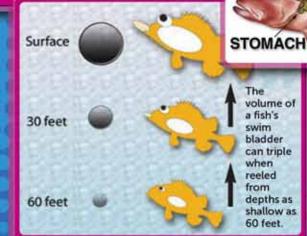
Because bull reds are bottom feeders, you will want to use a heavy enough weight to keep the bait at the bottom. A simple 'fish-finder' rig or Carolina style rig works great.

It's good to remember these large fish grab and run with your bait at a high rate of speed. If you hook one, you're in for a strong fight. An unsecured rod may easily be pulled into the water. Landing bull redfish on light tackle can be challenging so using heavier line and tackle, especially in dark or deeper water is a good idea. Your reel should have a good drag system and have several hundred yards of line available.

GO TO THE NEXT PAGE TO SEE THE BEST WAY TO RELEASE YOUR CATCH!

Release your fish correctly so they won't be a victim of... BAROJTRAUMA

ouch! that's gotta hurt!



SWIMBLADDER

WHAT IS BAROTRAUMAY Every fish has a gas-filled organ called a swim bladder that allows the fish to gently control how much it floats or sinks. When a fish is caught in very deep water and reeled in quickly, the fish doesn't have time to regulate its swim bladder and like a balloon being blown up, the swim bladder gets "over-expanded."

Their swim bladder may swell so much it's stomach is forced out its mouth. Ouch! The eyes may also bulge out of the sockets and other internal organs can be injured.

If a fish is released in this condition, it may not be able to swim back to the bottom and will float away on the surface, eventually dying.

BAROTRAUMA MYTHS:

Myth: Reeling a fish slowly prevents barotauma. Fact: Fish cannot get used to the pressure drop even when reeled in slowly.

Myth: The organ protruding from a "popped" fish's mouth is the swim bladder. Fact: It's the stomach! Never try and vent the stomach or try and force it back inside the mouth.

Myth: You can tell by looking whether a fish will survive or die. Fact: When properly recompressed, even a fish with severe barotrauma can survive.

What is the solution?... RECOMPRESSION!

In other words, you have to **help** get the fish down to the original depth from which you caught it so its swim bladder can shrink back to normal size. There are many ways of returning a fish to a depth at which it can recompress.

UPSIDE-DOWN CRATE, WEIGHTED AND ATTACHED TO A ROPE:



Crate is dropped over the fish and then, with the fish inside, lowered to about 60 feet and kept down until it can swim out on its own.

BACKWARDS BARBLESS HOOK WITH WEIGHT:



Hook fish through lower lip from inside to outside, to keep hook from puncturing an extruded stomach and to prevent line cuts to eyes. You can also hook a fish through the membrane on its upper lip from outside to inside, which some say makes for easier release. In both cases, the weight must lead the fish into the water and be heavy enough to sink it to the desired depth. Fish is released with a sharp jerk on the line.

COMMERCIAL FISH DESCENDERS:

"To descend" means to "go down." So a fish descender is a tool designed to help a fish get back down to where it came from. There are a variety of easy-to-use fish descenders out there for sale. These products are Black Tip Catch & gaining popularity in the fishing Release world and should be considered a Recompression Tool necessity when catching deep water fish. The best one for you may depend on the sizes and The RokLees Recompression Tool species you catch. You should check your local fishing stores, or the internet for your options. The SeaQualizer Recompression Tool Shelton Fish Descender™ SFD™ Recompression Tool



VENTING: This is the practice of deflating the fish's over-filled swim bladder with a sharp needle or hollowed out sharp object. This method was once thought to be a good method of helping the fish get back down but there have been an increasing number of studies showing that venting may do more harm than good. Recently, a study by the Alaska Department of Fish and Game announced in large red letters: "Do NOT vent" as "this practice leads to...eventual death." Even when done properly, venting can damage a fish's swim bladder. Recompression devices are proving to be a much-more effective method of successfully releasing deep-water fish.

BHILDING

NSERVATION

REEFING PROJECT CREATES FIRST VETERANS MEMORIAL REEF DEDICATED TO ALL U.S. VETERANS.

CCA Florida deployed the U.S. Coast Guard Cutter *Mohawk* to its final resting place this summer in 90 feet of water, 28 nautical miles off of Sanibel Island on Florida's southwest coast. Fishermen and scuba divers alike are excited about the new artificial reef. The official name of the new reef is the *U.S.S. Mohawk CGC Veterans Memorial Reef*.

The *Mohawk* was built in 1934 for patrol and icebreaking duties in the Hudson and Delaware rivers. During WWII, she traveled the world defending her country until 1945. The Mohawk launched 14 attacks on German submarines, rescued more than 300 survivors from torpedoed ships and was the last vessel to radio General Dwight Eisenhower that the weather would be clear enough to launch the invasion of Normandy on June 6, 1944.

"The sinking of the *Mohawk* will bring a new home to fish and marine life as well as new opportunities for fishermen and scuba divers from all over the world," said Don Roberts, CCA Florida Habitat Committee chairman.

CCA salutes the sailors who served on the *Mohawk*, and everyone who has served or is currently serving to protect the United States of America.

The Building Conservation Program funds local, state and national marine fisheries and habitat conservation projects.

The volunteer-based projects achieve one or more of five key goals:

- RESTORE DAMAGED HABITATS
- CREATE NEW HABITATS
- ADVANCE THE SCIENCE OF COASTAL HABITAT AND MARINE FISHERIES
- ENCOURAGE HABITAT PROTECTION
- EDUCATE COASTAL COMMUNITIES OF THE VALUE OF CONSERVATION

The money raised from this program is combined with local CCA chapter efforts to organize conservation projects that inspire local communities to work together for marine conservation.



CONSERVATION

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CROSSWORD

ACROSS

- 2. A fish that people eat out of cans.
- 3. An orange fish that is a pet.
- 8. A freshwater place where fish live.
- 10. Fish use these to swim.
- 11. Fish are covered in these
- This is when a fish's swim bladder may swell so much it's stomach is forced out it's mouth.
- hooks are best to use when catching bull reds.
- Redfish have a black spot on it's _____ to fool predators.
- Recompression devices are used to get fish _____ down!

DOWN

- 1. A very small fish
- 4. Great white _____
- 5. A saltwater place where fish live.
- 6. A fish with whiskers.
- 7. Fish need these to breathe
- 9. A very long snake-like fish.
- Adult _____ spawn every fall in what is known as the bull run.
- Every fish has a gas-filled organ called a _____ bladder.
- 17. The U.S.S. _____ CGC Veterans Memorial Reef is the new home for lots of underwater marine life
- 19. A sunken warship that becomes habitat is known as an artificial _____

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Tie a Snell Knot on a Circle Hook!

You learned earlier in this magazine that a circle hook is the best choice when fishing for bull redfish (or any deep water fish) because it is the safest for the fish. A **snell knot** is a popular way to get your circle hook securely attached to your line. Once you master this knot, it will surely come in handy!

> Pass one end of the line through the eye of the hook so that it sticks out one or two inches past the eye, towards the barb. Pinch the hook and line end together between your left thumb and index finger right where it exits the eye, make a large loop, then hold the loop down so that enough is sticking out to wrap several times around the line and hook body.

Wrap the end tightly around the line and hook body 7 or 8 times, towards the barb. On the final wrap, pass the end back through the looped line, so that it points towards the barb.

Grasping the end near the barb and the end on the other side of the eyelet, slowly pull the line until it is almost tight. Slide the loops up against the eye, then grip the short end with pliers and completely tighten the knot. Trim the end hanging towards the barb.





FISHING RESORT Game for Wil

Fishing Resort is a fishing game that takes place on a large tropical paradise and uses the Wii Remote to mimic the action of casting and the Nunchuk for reeling. After customizing your avatar, you have many options as to where to begin your fun. Whether it be checking the resort's bulletin board for daily activities and contests, participating in any of the over 20 fishing-related mini-games, or go trolling the high seas on a charter boat in search of really big game such as giant swordfish.

This paradise offers lakes, streams, and even ice fishing high in the mountains in addition to the deep and shallow sea fishing that's sure to keep the casual and hardcore fishing fans alike coming back for more as they try to catch the over 200 varieties of fish available.



Fun Stuff! Check These Out!



Mississauga • Toronto

London

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Hamilton JCERRCH **Global Shark** vlvania Allentown

Rochester

Utica

Philadelphia

New Jersey

OCEARCH's Global Shark Tracker observes the navigational pattern of sharks that have been tagged with Parkesatellite tracking technology all for the purpose of shark conservation.

Delaware With this tracker, OCEARCH has ington gathered ground-breaking data on the biology, health, life history and migration of sharks across the globe.

Sharks play a crucial role of maintaining balance in the delicate Virginia oceanic ecosystem as they have an Beach effect on all levels in the food web below them. Unfortunately sharks are being slaughtered every day, putting them at risk for survival. The navigational and migratory data being collected from OCEARCH will be used to create successful conservation and management strategies which will affect laws for global change. Carolina

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Portland New Hampshire Manchester

Albany Nashua Massachusetts · Boston Springfield Providence She was first an tagged here in Cape Cod, MA on Connecticut New Haven New York September 17, 2012.

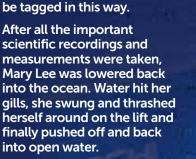
was first spotted by Chief Engineer Denny Wagner from atop the Mothership Vessel OCEARCH. "Great White!" He yelled as he kept his eye on

the great white who would become known as Mary Lee.

All the crew was in place, baits were in the water but Mary Lee would not bite. She became curious of the circling boat as time wore on and started nudging at the motors at the back of the boat almost in a playful manner for quite awhile. Finally, the call came in to the MV OCEARCH, "We're hooked up!"

Mary Lee did not swim into that shark lift willingly but eventually she made her way onto the platform and her massive size became very apparent! The lift was raised safely out of the water and Mary Lee was ready to be fitted with three different tags: SPOT, acoustic, and accelerometer.

Accelerometers are the motion-sensitive computer chips used in smart phones, iPods and the Nintendo Wii. Attached to sharks, accelerometers can detect each flick of a shark's tail or tilt of its body and give scientists insight into what sharks are doing and when. Accelerometer tags are different in that they record the actual physical movements of a shark's body. So simply, it tells you what the animal is doing - not just where it's going. The accelerometer contains extremely valuable information about Mary Lee's tail beats and body position after being tagged. This is only the second great white shark to ever



Chris Fischer reflects on Mary Lee and the crusade to get her in the lift, "The most brutal battle we have ever had. Bret McBride, Jody Whitworth, and Todd Goggins were true warriors in the midst of a modern day battle with an ocean giant in the toughest of environments we had ever had to work."

Charlesto

Savannah

Jackson

nesville

Ocala

On November 13, 2012 she pinged in around northeast Florida, about 1,400 miles away!

Orlando

mpa Florida

West Palm



he morning after Mary Lee swam off the shark lift, the hunt for the accelerometer tag began. The tag was programed to pop off

of Mary Lee around six o'clock in the morning. Once the tag pops off, it floats to the surface to be located by the crew.

Using headphones and an antennae, the radio signal from the accelerometer can be heard from ten miles away. 4

The accelerometer tag gives out a radio signal that sounds similar to a sonar ping. Using headphones and an antennae, the radio signal can be heard from ten miles away. The crew searched in very rough seas for several hours, traveling over one hundred miles, but they never heard anything.

Finally the ping directed the crew to a parking lot off Nauset Beach, Massachusetts and then down a path through the trees where finally the team stumbled upon some friends on the front porch their home. They were holding the accelerometer! The mission was a success!



The data collected from Mary Lee is incredibly unique. She swam off the lift strona and showed a change in swimming pattern about **30** minutes after release, suggesting a recovery period after tagging. This is great news.

Mary Lee went into deeper water at around midnight and started doing repetitive bounce dives between the surface and about 130 feet deep. This swimming pattern is common in other species of shark, and likely helps them conserve energy.

Mary Lee moved back into shallower water through the early morning hours and was only about 30 feet deep when her tag detached a couple hours after sunrise.



This question is from Tristan S., 6, Cypress, Texas. **Tristan:** Do great white sharks sleep?

Fischer: All sharks need to sleep. Some sharks, like the nurse shark, can rest on the ocean floor, but many like the great white cannot. This is because they must maintain water and oxygen moving over their gills in order to stay alive. They have to keep moving! These sharks that have to remain in motion "rest" by shutting down one side of their brain at a time, putting them into a sort of "sleep-swim." The awake side of their brain allows them to keep swimming and remain alert for predators or food. It is likely that great whites often have this rest period after they have fed well. It is unknown whether or not the great white has the need like humans to sleep at certain times of the day.

This question is from Nick V., 9, Houston, Texas.

Nick: In the last show of the season in South Africa, it sure looked like a lot of guys were getting hurt trying to get those last few sharks to the lift. Is everyone OK?

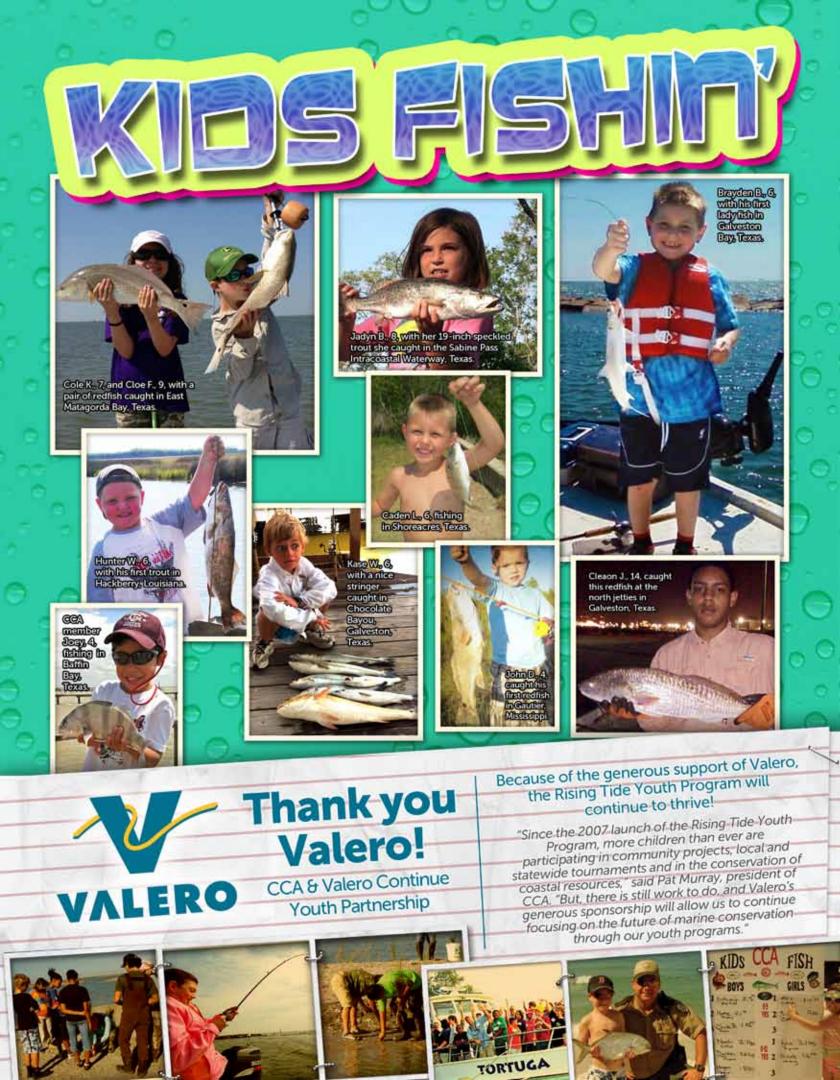
Fischer: Towards the end of our great white tagging mission in South Africa, the crew did grow increasingly exhausted and left some with minor injuries. Captain Brett McBride suffered a sprained right wrist, captain Jody Whitworth dislocated a finger, deckhand Todd Goggins badly hurt his thumb, and various other minor injuries were reported throughout the missions. As the saying goes in professional sports, the crew played hurt and they are warriors for understanding they had to work through the pain to get the very important scientific research completed. Now everyone is definitely "OK" and all who were hurt have recovered fully. Their hard work and determination should be an inspiration to us all.

DO YOU HAVE A QUESTION FOR CHRIS FISCHER?

Send in your questions and if chosen, he will answer them in this ongoing Q&A section. PLUS, If your question is selected, you will receive some cool Ocearch gear!

* Send questions to hpeterek@joincca.org.

> Mary Lee's name comes from Chris Fischer's mother. "My parents have done so much. I was waiting and waiting for a special shark to name after her and this is truly the most historic and legendary fish I have ever been a part of," says Chris.





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At Valero, we're proud to be America's largest refiner, producing everything from gasoline to jet fuel. But we're also one of the nation's most environmentally responsible refiners, too. We think the Coastal area is one of the most important regions in the United States, and we want to help keep it that way. That's why we are proud to sponsor the Rising Tide newsletter. Inside, you'll find lots of interesting information, and you'll discover the fascinating world underwater.

We hope that with what you learn, you will grow up just as determined as we are to help protect one of our most valuable natural resources: the Coastal area of our United States.