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# Red Lionfish

*Ornate, but Destructive*

If you have ever visited an aquarium, then chances are you know the lionfish, even if you do not know it by name. Most likely, you called it “cool” or “wild looking” rather than “destructive.” Emblazoned with zebra-like maroon and white stripes and crowned with impressive streaming fins, it is one of the most immediately recognizable fish on a coral reef. The native home for the red lionfish, *Pterois volitans*, is the tropical Indo-Pacific region of the world where they range from the Pacific reefs to the Red Sea. In recent years, though, the lionfish has found a new range closer to home causing state and federal marine management agencies concern. If you are a saltwater fishing or water enthusiast this is one fish you cannot take lightly.

## FEW PREDATORS TO CONTROL POPULATION

The red lionfish has a large appetite with a wide variety of food options, reproduces extremely quickly (multiple times during the spawning season), loves to hang out on reef structures and hard bottoms, and has few, if any, true predators in the Gulf of Mexico, which pushes them toward the top of the food chain. Red lionfish can reach a size of nearly 20 inches in length, and is armed with venom glands at the base of its dorsal spines, making it highly resistant to predation.

The common name is derived from the 13 venomous dorsal spines and 14 feather-like pectoral fins that draw one’s imagination to that of a lion’s mane. When threatened, the lionfish will spread out the spines to appear larger. Along with defense, the spines and tentacles are used to help “herd” smaller prey into confined spaces allowing less energy to be used while feeding.

Red lionfish will practically eat anything that will fit into their mouths. Once they take up refuge on a reef they will consume everything possible. This is extremely troublesome because as juvenile snapper, grouper, and other reef species begin to settle out on the reefs they become easy prey. A fish measuring just shy of 12 inches was found to have 21 juvenile tomtates (a type of grunt fish) in its stomach. This extremely ornate fish has the

possibility of becoming one of the most destructive invasive species to invade the Gulf of Mexico.

## QUICKLY SPREADING

Although the exact method of introduction into the marine waters of the United States is still being debated (genetic studies indicate that the U.S. population is the product of a small group) the red lionfish seems to have become a fixture in our marine environment. The growth and population expansion of this uninvited guest is just now fully being understood and is of great concern.

According to the Gulf States Marine Fisheries Commission Aquatic Invasive Species Program, the red lionfish has gained a presence throughout the Caribbean Sea, Atlantic coast, and ventured into the Gulf of Mexico. The first confirmed sighting of the invasive red lionfish was off the Dania, Fla., coast by a lobster fisherman in 1985. After the initial report by the lobster fisherman there are no reports until 1992. In 1992, six red lionfish were recorded in Biscayne Bay, Fla. These six were presumably escapees from a private aquarium display destroyed by Hurricane Andrew.

Rather quickly, the range of the red lionfish in U.S. waters spread from Miami up the Atlantic Coast to Rhode Island. By 2005, the U.S. range included the Bahamas and Bermuda. In 2006, the first Gulf of Mexico specimen was recorded near Tampa Bay. By 2010, the range spread southwest to St. Croix and Venezuela, north up the Central American coast, and north through the Florida Keys stretching all the way to Louisiana. During 2010, three red lionfish were reported in Alabama waters and six were reported in Louisiana. One of the reported sightings in Alabama was supplemented by video evidence. Their indiscriminate and voracious appetite could impact other fishes through direct competition for food and shelter and affect sport fish populations by feeding on the young.


## GOOD TABLE FARE

Some states, such as Florida, have begun holding lionfish fishing tournaments. These fishing tournaments reward anglers

with prizes for most lionfish caught, largest lionfish, and smallest lionfish. These types of tournaments are growing in popularity and one tournament held in Key Largo, Fla. brought in a total 534 red lionfish with the winning team collecting 111 red lionfish in this one-day event.

Along with red lionfish tournaments, the National Oceanic Atmospheric Administration (NOAA) has begun an “Eat Lionfish” campaign to help the public understand the impact on the ecosystem caused by the introduction of this species. To help NOAA’s “Eat Lionfish” campaign the Reef Environmental Education Foundation (REEF) has published a cookbook with sections dedicated to the background of the red lionfish – how to safely catch, handle and clean the fish – and 45 recipes.

## HOW YOU CAN HELP

What can the average person do to help? If a red lionfish is spotted on a dive, photograph the specimen, document the GPS location, depth of sighting, and report the sighting to the Alabama Marine Resources Division (AMRD). If you catch a red lionfish on a fishing trip, do not release the fish back into the water. AMRD needs these fish but please handle with care to protect yourself. Freeze the fish as soon as possible to preserve the stomach contents. By looking at the stomach contents, state and federal biologists will be able to better understand the impact this introduced species can have on our native fish populations. 

### How to Report a Red Lionfish Sighting

#### Alabama Marine Resources Division

Gulf Shores office: (251) 968-7576

Dauphin Island office: (251) 861-2882

Be prepared to report the GPS coordinates of the sighting and depth.

If possible, provide either pictures or video of the sighting.