

Lionfish Fact Sheet

(two species: *Pterois volitans*, *Pterois miles*)



Photos by Keith Mille of a lionfish captured by Robert Turpin, Escambia County Artificial Reef Coordinator, at an artificial reef located 15.7 nm SE of Pensacola Pass at a depth of 89 ft on September 9, 2010. This was the first lionfish reported off the Florida panhandle.

■ **Trained Divers are encouraged to remove lionfish.**

- Removing lionfish can help Florida's native marine fish and habitats.
- The FWC encourages divers and anglers to get trained and remove lionfish they encounter to help control the numbers of these invasive fish to Florida waters.

■ **Lionfish are not native to Florida waters.**

- They are a predatory reef fish and eat native fish.
- They compete for food with native predatory fish such as grouper and snapper.
- Lionfish can reduce native juvenile fish populations.
- Lionfish do not appear to have any predators in Florida waters, and numbers of individuals are increasing.
- Lionfish can have negative effects on the overall reef habitat, as they can eliminate organisms that serve important ecological roles (e.g. herbivorous fish that keep algae in check on the reefs).

■ **Lionfish are spreading throughout Florida's waters. They have been found in shallow estuary waters and to depths of 1,000 feet.**

- Lionfish were first reported off Florida's Atlantic Coast near Dania Beach in 1985.
- Beginning in 2000, the species was regularly seen off the southeast Atlantic coast of the United States. They are now commonly found through the Bahamas and the Caribbean (except the Lesser Antilles).

- A sighting by a diver in January 2009 in the waters off Key Largo received national media attention. This was the first of many sightings in Florida Keys waters.
 - In the fall of 2010, a total of 654 lionfish were taken by divers over three days in separate lionfish derbies conducted in the Florida Keys.
 - The second annual Florida Keys lionfish derby was held in May 2011; over 531 lionfish were removed during this one-day event. Two more lionfish derbies are scheduled for August 20 and November 5, 2011 in the Florida Keys.
 - Approximately 40 percent of Florida's recreational lobster fishers surveyed about their activities during the 2010 two-day sport dive season and August 2010 reported observing lionfish in the Florida Keys and Southeast Florida waters.
- Recently, lionfish have been collected or observed in the northern Gulf of Mexico.

USGS interactive map on lionfish sightings:

<http://nas.er.usgs.gov/taxgroup/fish/lionfishdistribution.asp>

■ **Lionfish can be caught in hand-held nets, speared or caught on hook and line.**

- Recreational divers and anglers must have a recreational fishing license to take lionfish.
- There are no size or bag limits up to a total catch weight of 100 lbs.
- The sale or commercial (over 100 lbs.) harvest of lionfish requires a saltwater products license.
- Divers should know the rules for using spears. Spears may not be used:
 - Within 100 yards of a public swimming beach, any commercial or public fishing pier, or any part of a bridge from which public fishing is allowed;
 - Within 100 feet of any part of a jetty that is above the surface of the sea – except for the last 500 yards of a jetty that extends more than 1,500 yards from the shoreline;
 - In Collier County and in Monroe County from Long Key north to the Miami-Dade County line;
 - In any body of water under the jurisdiction of the Department of Environmental Protection, Division of Recreation and Parks (Florida Park Service). Possession of spearfishing equipment is prohibited in these areas, unless it is unloaded and properly stored.
 - Harvest by other means, such as hand-held nets, is allowed in all of these situations.

- There are general saltwater regulations that apply to the harvest of all marine species, including lionfish. These regulations prohibit the use of certain gear such as explosives, fish traps and certain nets, and prohibit the harvest of fish while using a rebreather. General gear regulations are found in Chapter 68B-4, F.A.C.
 - A permit is required to take lionfish in the no-take zones of the Florida Keys National Marine Sanctuary. Permits are issued to individuals who complete a sanctuary-endorsed “Lionfish Response Training.” For help locating training programs, contact Scott Donahue at scott.donahue@noaa.gov or at 305-809-4700 ext. 239.
- **Lionfish should be handled carefully; they have venom glands on the dorsal, pelvic and anal spines.**
- NOAA recommends treating a puncture wound by immersing the wound area in hot (not scalding) water for 30-90 minutes and to seek medical attention as soon as possible. The Poison Help Hotline, 800-222-1222, is available 24 hours a day, every day.
- Unless a person is allergic to the venom, lionfish stings are very rarely fatal. Stings can be very painful, cause numbness, swelling and even temporary paralysis.
- **Help Needed! Divers are asked that observations of lionfish be reported (especially the Gulf of Mexico). Additionally, specimens from the northern Gulf of Mexico are requested by NOAA for genetic analysis.**
- To report observations, call the nationwide reporting number (877-STOPANS) sponsored by the U.S. Fish and Wildlife Service and the U.S. Geological Survey (USGS) or fill out an online report on the USGS website at <http://nas.er.usgs.gov/SightingReport.asp>.
 - Contact with USGS is :
 Pamela J. Schofield, Ph.D.
 U.S. Geological Survey
 7920 NW 71st Street
 Gainesville, FL 32653
 phone (352) 264.3530
 fax (352) 378.4956
pschofield@usgs.gov
 - To submit samples (fin clips) for genetic analysis from specimens collected from the northern Gulf, please contact Dr. James Morris with NOAA through the NOAA Lionfish repository website:
 - [The Lionfish Tissue Repository](http://lionfish-invasion.blogspot.com/)
<http://lionfish-invasion.blogspot.com/>

Lionfish fast facts

- Lionfish are native to the reefs and rocky crevices of the Indo-Pacific, but they are now found in most warm ocean habitats throughout the world.
- The lionfish has up to 18 needle-like spines, which deliver venom as a defense mechanism.
- The lionfish has a distinctive appearance with orangey-brown and white zebra stripes, and long pectoral fins. It also has fleshy tentacles above the eyes and mouth and long-separated dorsal spines.
- Lionfish can grow to 15 inches but are usually not more than a foot long.
- This fish is mostly popular in the aquarium trade, but are also increasingly harvested for food.
- Even though lionfish have been found as far north as the coast of Long Island, N.Y., they are probably not able to survive the cold winters.
- Females release up to 30,000 eggs every 4 days per spawn and can spawn three times per month.
- Juvenile lionfish eat mostly invertebrates, but shift their diet to fish as they grow.
- They spread their pectoral fins and use them to “herd” prey. This is a very effective predatory style, as it is unfamiliar to native Florida fishes.
- A controlled study in the Bahamas reported an 80-percent reduction in native fish over a five-week period on an isolated reef inhabited by lionfish.
- Lionfish reach full adult size at about 2 years.