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NOAA SCIENTISTS HUNT FOR 'LIONS' IN THE ATLANTIC
Venomous Invasive Fish Can Be Dangerous to Divers and Deepwater Fishermen

Divers and deep-water fishermen along the Atlantic Coast may encounter lionfish, venomous coral reef fishes that have found their way into east coast waters. Scientists from the National Oceanic and Atmospheric Administration (NOAA) will conduct field studies this summer supported by NOAA's Undersea Research Center in Wilmington, N.C., to examine the status of the lionfish population and examine life history characteristics to determine the risk of lionfish to Atlantic coast ecosystems. NOAA is an agency of the U.S. Department of Commerce.

"We are learning of more encounters with these venomous fish," said Paula Whitfield of NOAA's Center for Coastal Fisheries and Habitat Research in Beaufort, N.C., and co-author of a recently published assessment of lionfish ([web link follows](#)). "In March, the first known capture of a lionfish by hook and line occurred off the coast of North Carolina. The fish was 17 inches long and weighed 2.5 lbs. It's the largest specimen to date in the Atlantic."

Lionfish (*Pterois volitans/miles* complex) are venomous coral reef fishes from the Indian and western Pacific oceans that have invaded East Coast waters. Lionfish were likely first introduced off the Florida coast in the early to mid 1990s and by the summer of 2000 were found along the Atlantic coast of the United States from Florida to Cape Hatteras, N.C.

"Dispersal of the lionfish population along the Atlantic coast was likely helped by Gulf Stream transport of lionfish eggs and larvae," said Jonathan Hare, co-author of the assessment report. "Adult lionfish have been found primarily in water depths of 85 to 300 feet and juvenile lionfish have been observed in North Carolina, Bermuda, and as far north as New York in shallow coastal waters."

Lionfish are very popular in the aquarium trade and are commonly kept as aquarium pets. It is likely that the introduction of lionfish is from either intentional or unintentional releases related to the aquarium trade including amateur home aquarists.

NOAA scientists conclude that the large number of adults observed and the occurrence of juveniles indicate that lionfish are established and reproducing along the southeast United States coast. There is further evidence that lionfish numbers are increasing.

Lionfish have distinctive red, maroon and white stripes; fleshy tentacles above the eyes and below the mouth; fan-like pectoral fins; and long separated dorsal spines. Adults can grow as large as 17 inches, while juveniles may be as small as an inch or less. Lionfish are members of the Scorpion fish family that are well known for their venomous spine. All of the spines on a lionfish are venomous, creating a danger to primarily divers and fishers if stung.

Although there have been no known fatalities caused by lionfish stings, they are reportedly extremely painful. Researchers urge caution to anyone who encounters these fish. With most observations of lionfish occurring in waters more than 100 feet deep, divers and those fishing in deep waters are most likely to have encounters with the fish.

Lionfish also are believed to pose particular risks to the local environment. They are voracious predators that feed not only on small shrimps but also on large fishes, perhaps including the young of important commercial fish species such as snapper and grouper, many of which use the region's "live bottom" reefs as nursery grounds. The invasive lionfish have few if any natural predators in their new Atlantic environment.

Three of NOAA's line offices, the National Ocean Service, the National Marine Fisheries Service, and the Office of Oceanic and Atmospheric Research are working together through research and public outreach to deal with the lionfish threat.

The public is encouraged to report all lionfish sightings and collections to Paula Whitfield at the NOAA Beaufort Laboratory, (252) 728-8714 or by email at: paula.whitfield@noaa.gov

NOAA is dedicated to enhancing economic security and national safety through research to better understand atmospheric and climate variability and to manage wisely our nation's coastal and marine resources.

On the Web:

NOAA: <http://www.noaa.gov>

Lionfish information: <http://shrimp.ccfhrb.noaa.gov/lionfish/>

Lionfish assessment report: http://shrimp.ccfhrb.noaa.gov/lionfish/lionfish_IA_final.pdf