

AQUATIC INVADERS



COMMON NAME: Red lionfish

SCIENTIFIC NAME: *Pterois volitans* (Linnaeus 1758)

NATIVE DISTRIBUTION: Western Pacific from southern Japan to Micronesia, Australia and the Philippines; also throughout most of Oceania (including the Marshall Islands, New Caledonia and Fiji) east to French Polynesia.

U.S. distribution: Established along the Atlantic coast from southern Florida to New York, including Bermuda.

Habitat: The lionfish inhabits reefs from about 10 to 175 m deep. As juveniles, lionfish live in small groups, but as adults they typically occur alone. Individuals are relatively inactive during the day, typically sheltering in reef crevices.

Life cycle: Red lionfish are external fertilizers that produce a pelagic egg mass following a courtship and mating process that is not well documented. Like many reef fishes, red lionfish larvae are planktonic. After a few weeks in the plankton stage, larvae settle onto reefs as juveniles.



Cool facts:

- The red lionfish is a solitary predator of small fishes, shrimps and crabs.
- Prey are stalked and cornered or made to feel so by the outstretched and expanded pectoral fins of the red lionfish in full ambush mode.
- Prey are ultimately obtained with a lightning-quick snap of the jaws and swallowed whole.
- Cannibalism has been observed for this species.
- Unlike most scorpionfish with their camouflage markings, the lionfish has greatly extended fin spines and striking colors.

Pathways of invasion: Aquarium releases and pet fish liberated during storm events such as hurricanes.

Impacts: The introduction of the red lionfish to marine waters of the Atlantic off the eastern coast of the U.S. is relatively new, and therefore little information is available regarding its impacts. However, the species is known to carry a parasitic leech (*Myzobdella lugubris*) and may serve to spread this or other parasites or diseases. Lionfish are predacious on small fish, shrimp and crabs, and have been reported to eat commercially significant native species including grouper and sea bass.

The venomous spines of the lionfish are potentially hazardous to divers and fishermen. The species can inject venom via 13 dorsal spines, three anal-fin spines and two pelvic-fin spines. The red lionfish will act aggressively (e.g., rushing forward quickly with spines out) when it perceives its territory has been invaded. Stings cause several hours of extreme pain, and may also cause swelling, redness, bleeding, nausea, numbness, joint pain, anxiety, headache, disorientation, dizziness, paralysis and convulsions.

Ways to prevent its spread:

- Never release pets or any non-native organism into the environment.
- Make sure that in the event of a flood or other storm (e.g., hurricanes) the fish, plants, snails, etc. from your aquaria will not be washed in to adjacent aquatic environments.
- Report invasive species to local officials and the USGS online at <http://nas.er.usgs.gov/> or by calling 877-7867-267 (877-STOP-ANS).

These tips apply to ALL non-native fish.

Don't forget: You may be able to find native fishes for your aquarium.
