

# Lionfish (*Pterois volitans*)

~ The Next Potential Threat to the Eastern Seaboard of the United States ~



**Description:** The Lionfish is hard to miss with its distinct red and white stripes and poisonous spines. On the reefs it is known as an extremely fast predator and carnivore. The average lifespan of the Lionfish can be up to 15 years and they can weigh up to 2.6 pounds. Lionfish vary in size from 12 to 15 inches in length. In some parts of the world Lionfish are used as food, but in the United States they have become increasingly popular in the aquarium trade. This has caused some concern among scientists for the native marine populations along the East Coast.

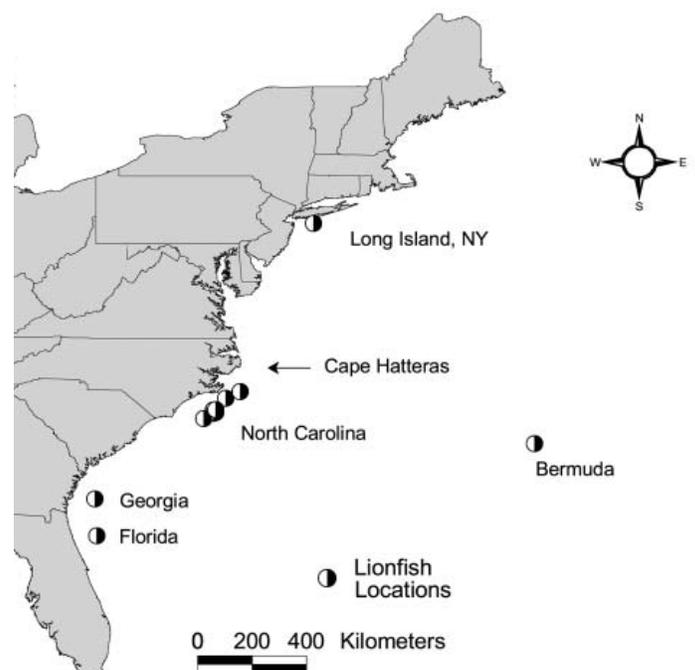
**Problem:** Currently insufficient research has been collected to determine the potential impact of Lionfish on the native marine species in the United States. However, the Lionfish has few natural predators to control population growth. Through observation scientists have noted the Lionfish has aggressive behavioral characteristics. Divers have sighted Lionfish spanning from the Caribbean to Long Island Sound. The poisonous spines and fearless dispositions of these fish could become a harmful threat to many divers and swimmers.

**Distribution:** The Lionfish typically inhabit lagoons and reef habitats some which exceed 50

meters. They are nocturnal predators considered to be at the top of their food chain. During the day Lionfish can be spotted in dark crevices or under

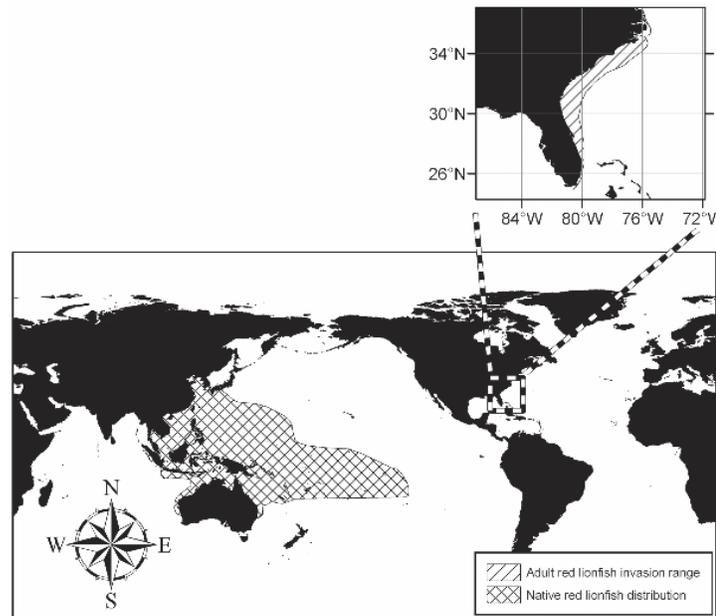
rocky outcrops. As night approaches, the Lionfish swim openly throughout the reef in search of prey. Unfortunately, more research is needed to understand the reproductive habits of this species.

**Origin:** The native range of the Lionfish begins in the tropical and sub-tropical Indo-Pacific to the islands of the South Pacific from Japan to Australia including: Micronesia, the Philippines, and French Polynesia. Scientists believe the Lionfish was first introduced in 1992 in the wake of Hurricane Andrew. At least 6 individuals were released into Biscayne Bay when a local Aquarium suffered severe damages. Another possible explanation for their introduction lies in the ballast water of ships carrying imported goods. Lionfish have become popular additions to the public's personal aquariums, however, as they mature to full size they become a hindrance and are sometimes released in the ocean.



**Figure 1:** Current distribution of invasive Lionfish on the East Coast.

Journal: Marine Ecology Progress Series. June 2002:Vol 235:209.



**Figure 2.** Native distribution of Lionfish in the Indo-Pacific and Adult red Lionfish invasion range.

Journal: Southeastern Naturalist 2005 Vol. 4(2):194

### Potential Control Measures:

More research is needed to find methods of population control. In the mean time, the general public should be notified of the potential threat of these invaders especially to members involved in aquarim trade.



[www.richard-seaman.com](http://www.richard-seaman.com)

### For More Information:

Visit the National Invasive Species Information Center at [www.invasivespeciesinfo.gov](http://www.invasivespeciesinfo.gov)



[www.advancedaquarist.com](http://www.advancedaquarist.com)



[www.advancedaquarist.com](http://www.advancedaquarist.com)

Created by: Danielle Godin and Stephanie Peterson

### References

- Whitefield, P. E., Gardner, T., Vives, S., Gilligan, M., Courtenay, W., Ray, C., Harel, J. 2002. *Biological invasion of the Indo-Pacific lionfish Pterois volitans along the Atlantic coast of North America*. Mar Ecol Prog Ser 235: 287-297
- Meister, S. H., Wyanski D. M., Loefer J. K., Ross, S. W., Quattrini A. M., Sulak, K. J. 2005. *Further Evidence for the invasion and the establishment of Pterois volitans (Teleostei; Scorpaenidae) along the Atlantic coast of the United States*. Southeastern Naturalist 4(2): 193-206
- <http://animals.nationalgeographic.com/animals/fish/lionfish.html>
- <http://www.invasivespeciesinfo.gov/aquatics/lionfish.shtml>
- <http://www.int-res.com/articles/meps2002/235/m235p289.pdf>