

Name: _____ Date: _____
class: _____

The Lionfish Invasion!



*What is as graceful and beautiful as a butterfly,
as ferocious¹ as the most dangerous predator,
and delivers a painful sting with its poisonous spines?*

It is the lionfish, a fish from the coral reefs in the tropical waters of the South Pacific and Indian Oceans. But you don't have to travel halfway around the world to see a lionfish.

Perhaps you have seen one in a friend's home aquarium?

5 Lionfish are popular saltwater aquarium fish all over the world, but especially in the United States. Nowadays, they also live in Atlantic waters off the East Coast of the United States. These lionfish are what scientists call an invasive species or an "alien invader."

Lionfish invade U.S. waters

10 Local divers off the coast of North Carolina were not expecting to see what they found one day in August 2002—they spotted the exotic and beautiful lionfish, common to the warm waters of the western Pacific, but unknown at that time as residents of the Carolina coast. They provided the first solid evidence that lionfish were in the Atlantic—an actual specimen that they collected there. A year later, scientists had documented 19 lionfish sightings at eight locations along the North Carolina continental shelf. By then, lionfish were also being observed off the coasts of Florida, Georgia, and South Carolina.

15 Juvenile² lionfish were also showing up off of Bermuda, about 650 miles away from the North Carolina coast, and even as far north as Long Island, New York! Since then, many more United States divers have reported sightings of the distinctive fish. Between 2000 and 2003, lionfish sightings were reported at 16 different shipwrecks and natural hard bottom locations. During a summer 2004 research expedition, NOAA scientists collected 155

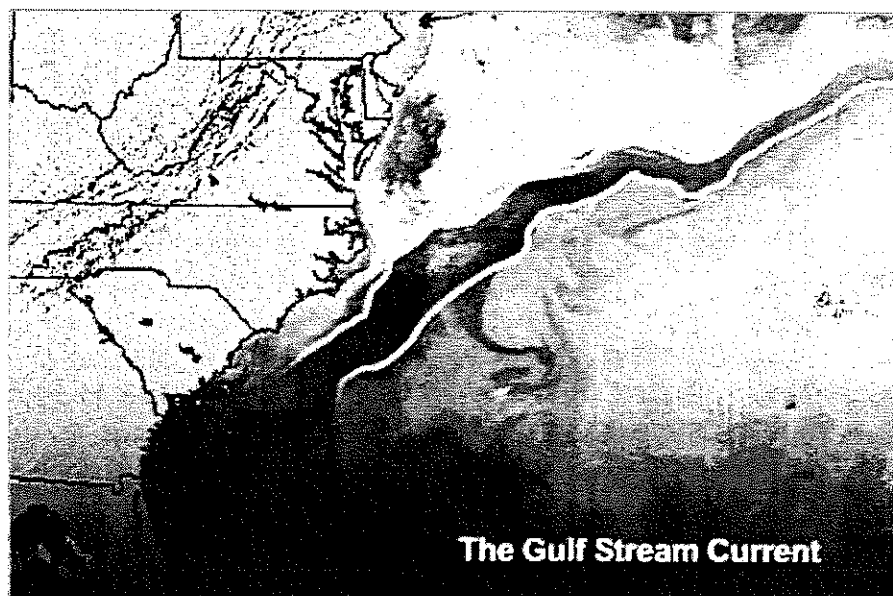
20 lionfish at 19 different locations off the North Carolina coast alone. The jump in numbers and distributions over such a short time, plus sightings of juveniles smaller than those sold for aquaria, strongly indicates that the lionfish is reproducing in the Atlantic Ocean. If this is true, it's the first time that a western Pacific fish has populated the U.S. Atlantic coast.

25 **How did the lionfish get into the Atlantic Ocean?**

Lionfish are a popular ornamental³ aquarium fish that were likely released on purpose when people no longer wanted them as aquarium pets! The swift and warm Gulf Stream, which likely transported buoyant lionfish eggs and larvae from Florida northward, helped the lionfish's Atlantic journey.

30 It's pretty unusual for non-native, tropical marine fishes like the lionfish to establish themselves at this latitude. In Florida waters and along the continental shelf near the Gulf Stream, the temperatures are very similar to the lionfish's native waters.

35 However, from north Florida upward, the waters along the coastline are too cold in the winter for lionfish to survive. Scientists expect them to survive the winter only at water depths greater than 120 ft because this is where the Gulf Stream has influence all year long. Very importantly, the types of predators and competitors present in the marine community in the Atlantic are very different from the native range of the lionfish. Generally, species like the lionfish have not been perceived to pose a significant threat to marine ecosystems because they were not likely to survive
40 long.



Text and Photos NOAA.
<http://oceanservice.noaa.gov>

¹ Ferocious: Extremely intense

² Juvenile: Young; youthful

³ Ornamental: Serving to decorate

6 Which statement **best** reflects the central idea of the article?

- A In 2002, divers looking for other species of fish discovered the lionfish off the coast of North Carolina.
- B The beautiful and exotic lionfish, a native of tropical waters, has been populating the waters of the Atlantic Ocean.
- C While dangerous to other forms of marine life, the lionfish has become a popular aquarium pet because of its unique appearance.
- D The warm waters of the Gulf Stream extend from the Gulf of Mexico toward Europe and provide a habitat for the lionfish.

7 Scientists call the lionfish an "alien invader" (line 6) because lionfish

- A attack other species with their poisonous spines
- B have overtaken the habitats of other marine species
- C came from one place and spread to another place
- D are able to live in hostile environments

8 Why does the author include lines 12 through 16 ("A year later...as far north as Long Island, New York!") in the article?

- A to list all of the places where lionfish can be found
- B to track the movements of lionfish and their habitats
- C to warn people living in certain locations about poisonous fish
- D to describe how widespread lionfish sightings have become

9 Which word is closest in meaning to "expedition" (line 19)?

- A display
- B contest
- C trip
- D report

