



SIMON FRASER
UNIVERSITY



Lionfish Quickfacts

Invasion History

- Two visually identical species of lionfish (*Pterois miles* and *P. volitans*) were introduced into the Atlantic via the US aquarium trade beginning in the 1980's
- Lionfish invaded range is North Carolina to South America including the Gulf of Mexico
- Lionfish have established throughout most of the Caribbean in less than five years

Biology

- Lionfish may live decades and reach sizes exceeding 47cm (19 in)
- Lionfish inhabit all marine habitat types and depths (shoreline to over 300 m or 1000 ft)
- Lionfish possess venomous spines capable of deterring predators and inflicting mild to serious stings and reactions in humans
- Lionfish temperature tolerance is approximately 10-35°C (50-95°F)
- Lionfish become sexually mature in less than a year and spawn in pairs
- Reproduction occurs throughout the year about every 4 days
- In the Caribbean, a single female lionfish can spawn over 2 million eggs/year
- Lionfish eggs are held together in a gelatinous mass of 12,000 to 15,000 eggs and are dispersed at the ocean's surface by currents
- Their larval duration is approximately 25 days

Ecology

- Lionfish can reach densities of over 200 adults per acre
- Lionfish are generalist carnivores that consume over 70 species of fish and many invertebrate species, capable of eating prey up to half their body length
- Many lionfish prey on commercially, recreationally, and ecologically important species
- Dense lionfish populations can consume more than 460,000 prey fish/acre/year
- On heavily invaded sites, lionfish have reduced their fish prey populations by up to 90% and continue to consume native fishes at unsustainable rates
- Native predators exhibit avoidance for lionfish
- Lionfish are susceptible to very few parasites compared to native species
- Lionfish exhibit site fidelity
- Lionfish have a high affinity for structure and feed primarily during dawn and dusk

Control

- Lionfish are edible and considered a delicacy
- Local removal efforts that are sustained can significantly reduce lionfish densities