

FACTSHEET LIONFISH INVASION



SPECIES

10 native to the Pacific,
2 introduced in Caribbean

SIZE

Up to 49 cm in length

HABITAT

Coral reefs, seagrass
beds, mangroves
Surface - 300 m

TAXONOMY

Species: *Pterois volitans* and
Pterois miles

LIFE SPAN

~5-10 years in the wild

GEOGRAPHIC DISTRIBUTION

Native: Pacific

Non-native: tropical Caribbean,
Atlantic, and Gulf of Mexico



DESCRIPTION

Reef fish with white and reddish-brown vertical bars or bands and large fan-like fins. Venomous dorsal, ventral, and anal spines.



BEHAVIOR

Slow moving fish, typically found in groups or alone under ledges and overhangs during the day.



REPRODUCTION

Fast-growing and fast reproducing. Females produce 10,000-20,000 eggs every 3-4 days year-round. Populations can jump from 89,000 to 335,000 in one year. Currently, 200 lionfish per acre in the Caribbean and Atlantic.



DIET

50+ species of reef fish such as snappers, grunts, grouper, and parrotfish, as well as juvenile lobster. One lionfish can reduce the number of reef fishes by 79% in just five weeks.



PREDATORS

None in their non-native Atlantic habitat.



HANDLING LIONFISH

Avoid dorsal, ventral, and anal spines. If stung, soak in hot water (~42°C) and seek medical attention.

WHY ARE THEY A PROBLEM?

Lionfish are an invasive (non-native) predator that can decimate economically and ecologically important reef fish.

- No natural predators to control populations.
- Coupled with coral bleaching, overfishing, pollution, and disruptive algal growth, lionfish may cause irreversible, negative changes to reefs.
- Capable of removing forage fish from some Caribbean reefs.
- Fishing (42 million people's livelihood) and tourism (US \$2.1 billion dive revenue) industries in the Caribbean may be severely reduced from fallout following lionfish invasions.



SOLUTIONS

- ✓ Remove lionfish on the reef:
Can't eliminate, but can control population
- ✓ Report lionfish sightings:
www.reef.org/programs/exotic/report
- ✓ Eat them – they are delicious!
Development of seafood market
- ✓ Tourism operations that focus on removal
- ✓ Increase monitoring efforts and region-wide collaboration of research, management approaches, successes, and failures



The invasion of lionfish may prove to be one of the greatest threats of this century to Atlantic reefs."

Dr. James A. Morris, Jr.



KEY WEBSITES

United States Geological Survey (USGS) *Lionfish Factsheet*

nas.er.usgs.gov/queries/factsheet.aspx?speciesid=963

Oregon State University *Hixon Laboratory*

www.communityconch.org

REEF | *Lionfish Research Program*

hixon.science.oregonstate.edu/content/highlight-lionfish-invasion

National Oceanic and Atmospheric Administration (NOAA) Fisheries *Ocean Service Education*

marinesciencetoday.com/2014/02/26/what-do-parrotfish-and-conservationists-have-in-common/

Invasive Lionfish | *A Guide to Control and Management*

hixon.science.oregonstate.edu/content/highlight-lionfish-invasion



VIDEO

BBC Oceans | *Phillip Cousteau Jr. Investigates Invasive Lionfish*

www.youtube.com/watch?v=XqGhsMhZtF0

Carl Safina | *Scourge of the Lionfish*

chedd-angier.com/savingtheocean/Season1/Episode10.html

Associated Press (TRACY BROWN) *Lionfish Invasion*

www.youtube.com/watch?v=0F1LcufYwMw

How to fillet a lionfish

www.reef.org/programs/exotic/lionfish/resources

Alien Invaders | *Changing Seas*

stephaniejgreen.com/news/



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Available: WaittInstitute.org/factsheets