Scientists tether lionfish to Cayman reefs

April 18 2014, by David Mcfadden

In this Thursday, June 27, 2013 file image taken from video, two lionfish are shown in an aquarium at the Nova Southeastern University Oceanographic Center in Dania Beach, Fla. A ban on imports of lionfish into Florida has won preliminary approval from the state's wildlife commission. The Florida Fish and Wildlife Conservation Commission also wants to make it easier for more people to catch lionfish in the wild. The invasion of lionfish throughout the Atlantic is considered as menacing to native wildlife as the Burmese python's incursion into Florida's Everglades. (AP Photo/Suzette Laboy, File)

Research done by U.S. scientists in the Cayman Islands suggests that native predators can be trained to gobble up invasive lionfish that colonize regional reefs and voraciously prey on juvenile marine creatures.

The invasive species with a flowing mane of venomous spines has no natural predators in the Atlantic and Caribbean Sea. Native sharks and groupers typically avoid healthy lionfish, a native to the Indian and Pacific oceans that was likely introduced through the pet trade. But when a University of Florida team tethered spry lionfish to lead weights on reefs off Little Cayman, underwater video cameras late showed nurse sharks and Nassau groupers gulping them down.

Thomas Frazer is one of the researchers and the director of the University of Florida's School of Natural Resources and Environment. In a Thursday email, he said the study off Little Cayman suggests that sharks and groupers "have the capacity to learn to pursue, capture and consume" lionfish without human intervention.

"Findings from this study simply suggest that conditioning is likely to facilitate the learning process. On a local scale, predation on lionfish by sharks and groupers is likely to enhance culling efforts," Frazer said.

Some researchers and lionfish wranglers who were not involved in the study expressed doubt about the findings, arguing that tethered fish do not behave naturally and likely trigger an unusual feeding response in predators.

"I am highly skeptical that a native predator eating a tethered lionfish means that those predators will eat untethered lionfish," said Mark Hixon, a University of Hawaii professor of marine ecology and conservation biology who has studied the lionfish invasion.

Lad Akins of the Reef Environmental Education Foundation, a Florida-headquartered organization of divers and marine enthusiasts, said he believes feeding lionfish to native predators in the Cayman Islands or anywhere else is dangerous.

"A number of people have been bitten, sometimes badly, by conditioned predators. The dive industry, regulatory agencies and resource managers have come out against the unsafe and unproven practice of feeding lionfish to predators," Akins said Thursday.

In a published report on their research in the *Journal of Experimental Marine Biology*, Frazer and his fellow researchers stressed that any attempt to train native predators "must be done in a way that minimizes threats to humans who share the environment with the predators being trained and invasive lionfish."

Frazer believes their study suggests that the practice of training native predators along coastlines can augment culling efforts and deep reefs, where divers never venture, will likely benefit.

Citation: Scientists tether lionfish to Cayman reefs (2014, April 18) retrieved 2 May 2024 from https://phys.org/news/2014-04-scientists-tether-lionfish-cayman-reefs.html