

Mother Nature's Lizardfish Legerdemain

Mother Nature is an illusionist. Now you see it. NOW YOU DON'T.

In 2006, Narragansett Bay was invaded by a very ugly tropical predator—the inshore lizardfish. The fish prefers shallow waters and sandy bottoms, where it can camouflage itself and ambush passing marine creatures. Not fast swimmers, they are cobra quick, and always hungry.

During the summer of 2006, R.I. Department of Environmental Management (RIDEM) trawl and seine surveys, working as part of the Bay Window monitoring partnership, found 563 inshore lizardfish. This was more than the combined number discovered in the previous 20 years of RIDEM surveys. “They’re eating everything,” said a scientist from the RIDEM’s fisheries division. By extrapolating from the limited survey count, the estimated number in the entire Bay in 2006 was 1.5 million. (The Bay Window Program was featured in *41°N* 3(1). View on-line at seagrant.gso.uri.edu/41N.)

What effect would another lizardfish visit have? Would they presumably once again hitch an unintended ride up the Gulf Stream, where they could drift into the Bay and begin gorging themselves on the local species? If so, what impact would they have?

Enter Mother Nature. Exit lizardfish. The RIDEM Bay Window monitoring trawls yielded virtually no lizardfish for the summer of 2007, after the previous year’s population died off in the cold winter waters it is not equipped to handle. Where did they go? Instead of fisheries researchers and managers wondering what kind of a bite the lizardfish would take out of local stocks this year, the party crashers of 2006 simply never showed up.

But we learned a lesson while we watched Mother Nature’s sleight of hand.

When the lizardfish was detected by the Bay Window monitoring in 2006, it set scientists and coastal managers into motion. They were analyzing the impact of that year and the possibility of continued new arrivals. They also began evolving ways to deal with this voracious new addition to Rhode Island’s waters and began the assessment and analysis of past years’ data to see what might have eased their transition into northern waters. Fortunately, in this case, the problem has disappeared from view. But perhaps not for long.

Editor’s Note: This article first appeared in the Commentary section of the Providence Journal on October 10, 2007.

—Chip Young

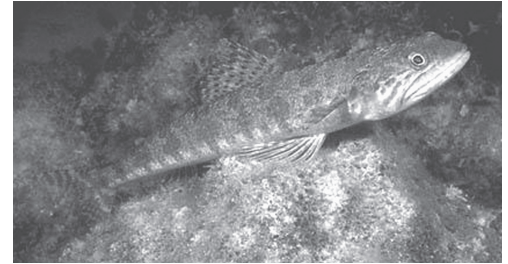


Photo courtesy RIDEM Fisheries.

UPDATE ON THE URBAN COASTAL GREENWAY

The Urban Coastal Greenway (UCG) Policy—the R.I. Coastal Resources Management Council’s (CRMC) refinement of its statewide coastal development and buffer regulations for the cities of Cranston, East Providence, Pawtucket, and Providence—has been called “the most advanced urban waterfront planning tool that’s out in the nation” by NOAA, said Grover Fugate, CRMC executive director.

The UCG Policy, created with the assistance of Rhode Island Sea Grant, allows more flexibility in buffer widths than the standard policy along the already-developed upper Bay shoreline in return for compensation such as public access or habitat conservation. In creating it, Fugate said, CRMC looked for models, and were able to take some components from other policies around the country. Still, CRMC had to create some of the policy from scratch, including the policy’s zones, in which different restrictions apply to sections of the shoreline based on environmental characteristics. Fugate said that CRMC has changed its regulations to maximize protection of zones where the highest quality vegetation and habitat exist.

“We’re changing over from ‘Let’s make a deal’ to a performance-based system, but we’re allowing the developers a lot of flexibility in meeting the requirements,” he said.

True to its name, the UCG Policy was intended to

protect the swath of vegetation that still lines the shore in many places in the urban upper Bay, and to create in it a path that would provide points of access to the water. Public access in urban areas is especially important, Fugate added, because much of the population in those areas is “not that mobile.”

The policy has been remarkably successful. “The Urban Coastal Greenway policy hasn’t been in place a year, and we’ve opened up over 7,050 linear feet of access to the shoreline, some of which hasn’t been accessible to the public since the Civil War,” Fugate said.

The policy includes regulations for stormwater management and sustainable landscaping. “In Rhode Island, nonpoint source pollution is our largest pollution source” for pathogens and nitrogen, Fugate said. “The only thing that has shown promise for treating that is low-impact development,” which the policy incorporates.

Sustainable landscaping is increasingly important, Fugate said, because “climate change is going to stress an already stressed water supply. Landscaping is going to be the first to go in terms of restrictions on water.”

He added that CRMC will be discussing extending the UCG Policy to other waterfronts.

—Monica Allard Cox

