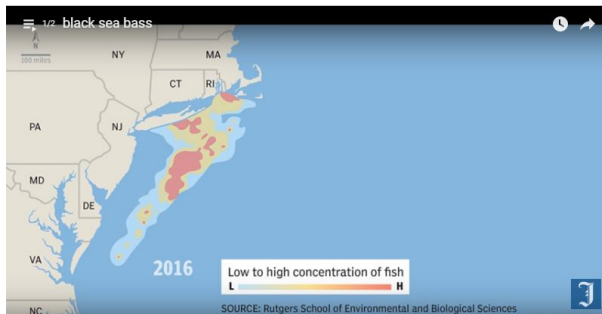


PROVIDENCE Journal

Front line of climate change: Black sea bass surge off R.I.



By Alex Kuffner

Journal Staff Writer

Posted Jul 15, 2018 at 11:57 AM

Updated Jul 15, 2018 at 11:57 AM

Warmer waters cause spike in numbers for this mid-Atlantic species, and it is becoming a more important catch for the region's fishermen as regulators loosen catch limits for recreational fishermen.

PROVIDENCE, R.I. — Scientists tell us that some fish will be winners and others losers as oceans warm.

In Rhode Island, count lobster, silver hake and winter flounder among the losers, their numbers plummeting as climate change drives water temperatures higher. On the list of winners so far are squid, summer flounder, butterfish.

And black sea bass. The population of the dusky-colored fish with striking blue accents has historically been strongest off the mid-Atlantic Coast, but over the past decade or so its numbers have spiked off New England and it is becoming a more important catch for the region's fishermen.

In a telling sign of black sea bass's surge in Rhode Island, the state Department of Environmental Management last month loosened regulations governing the recreational fishery for the species, extending the season by 31 days and increasing the fall possession limit to seven fish per person per day, from five.

It may appear to be a small development, but the rules change resulted from a heated debate among state and federal regulators about how best to manage a species whose distribution and abundance has gone through a striking shift that few would have imagined a generation ago.

The back-and-forth over the fish also signals more difficulties to come as regulators struggle to respond to the impacts of climate change on the marine environment. Similar issues are already playing out with summer flounder, another warm-water fish that is becoming more common off the north Atlantic coast.

How they are managed will have important implications not only for those fish but for lobsters and other key species in the ocean ecosystem.

"We're in an adaptive mode right now," said Bob Ballou, assistant to the director of the Rhode Island Department of Environmental Management and chairman of the Atlantic States Marine Fisheries Commission's black sea bass and summer flounder boards. "It's occupying all our time to think through all the approaches to better manage these resources."

One of the key assumptions that the nation's fishery management system is built upon is that species don't move between general geographic regions.

That traditional regulatory framework held up for a long time, but rising water temperatures and the resulting shifts in species distribution and abundance are forcing the beginnings of change.

In the case of black sea bass, it's not that the population of the fish is simply relocating north. Numbers are still decent in the southern portion of the fish's range, but they are much stronger now off the coasts of New York, Connecticut, Rhode Island and Massachusetts — places where the waters used to be too cold to support large populations.

In Rhode Island, water temperatures in Narragansett Bay have risen about 3½-degrees Fahrenheit since 1959, according to weekly monitoring done by the Graduate School of Oceanography at the University of Rhode Island. Warmer winters, in particular, have allowed black sea bass to thrive this far north.

In the 1980s and 1990s, a fish trawl survey conducted by the DEM rarely caught a single black sea bass in Rhode Island waters, but incidence of the species has risen steadily, especially over the past decade, and now each trawl nets about two black sea bass on average.

Because black sea bass move between federal and state waters, the fish is managed jointly by the federal government, through the Mid-Atlantic Fishery Management Council, and states, including Rhode Island, through the Atlantic States Marine Fisheries Commission.

Although scientists have long known that concentrations of the fish have been shifting north toward the Gulf of Maine, it wasn't until 2016 that regulators started to factor in the change.

That year, a new stock assessment for black sea bass formally recognized for the first time two distinct populations of the fish, a northern group around New England and a southern group from New Jersey to the Carolinas.

The growth in the northern group more than made up for the southern group's mediocre numbers, and the assessment determined the total population of the fish to be nearly two and a half times higher than the minimum stock threshold set by regulators

"That was a really big step forward," said Jason McNamee, chief of marine resource management for the DEM. "The science is now catching up to what's going on with the environment."

But despite the robust overall picture for the fish, the ASFMC's proposed quotas for this year called for a 12-percent reduction in the northern region's catch to allow the southern region, the historic center of the black sea bass fishery, to increase its share.

Rhode Island, New York, Massachusetts and Connecticut filed an appeal, and on May 3, the fisheries commission relented, allowing what amounts to a four-percent increase for the northern region.

The stakes are high for Rhode Island, which is experiencing deep changes to the composition of its marine species because of its location, at the junction of what ocean scientists call the Boreal Province — cold waters that include the Gulf of Maine to the north — and the Virginian Province — warmer waters of the mid-Atlantic to the south.

"We're right at the front lines of these changes," McNamee said. "These mid-Atlantic species are our most important species now."

Dave Monti reeled in another black sea bass.

Like the five others caught in Narragansett Bay on a recent morning, at less than 15 inches long, it was too small to keep. So Monti started working the hook out of its mouth.

"You've got to be careful of the dorsal fin," he warned. "It'll stick right into you."

As regulators have tightened catch limits for striped bass and other saltwater game fish that were historically abundant in Rhode Island waters, black sea bass has filled the void, said Monti, a charter boat captain who docks his boat in Wickford Harbor.

"They've saved my charters over the past couple years when other fish aren't around," he said.

Seas were too rough to visit his favorite place to fish for black sea bass, a patch of waters in the open ocean near Brenton Reef off Newport, so he steered his 44-foot boat the Virginia Joan to a few spots in the Bay between Jamestown and Narragansett.

Black sea bass is a reef fish that likes rocky bottoms and patrols the waters around jetties and pilings for prey. It's a hermaphrodite — some fish switch sexes as adults. The species can be found off Rhode Island year-round, typically coming inshore to the Bay in the spring to spawn and wintering farther off the coast.

Just south of the Jamestown Verrazzano Bridge, Monti reached for a rod from a holder overhead. He called it his "sea bass slayer." It was fitted with a shiny, red-tinted lure and he baited the hook with a slice of squid and a little fish called a silverside. A few minutes later, the first black sea bass was caught.

It doesn't take much work to find the fish these days, said Rick Bellavance, president of the Rhode Island Party and Charter Boat Association.

"Black sea bass are a charter boat operator's dream," he said. "They're pretty prevalent, they're easy to catch, and they taste great."

On a recent charter to Block Island, the six clients on Bellavance's boat caught only two striped bass and one bluefish between them, so he started setting lines for black sea bass. They promptly snagged 20 of the fish that were big enough to take home.

Although he applauded the new regulations, he said the changes have been slow to come and haven't gone far enough. He'd like to have the current six-month season extended year-round and the per-person daily limit raised to 10 fish.

"We need to recognize that the stock has shifted to the north and to the east," he said. "Rhode Island is closer to that epicenter than it used to be."

Monti, who is vice president of the Rhode Island Marine Fisheries Council, which advises the DEM on state fishing policy, agreed.

"There's no doubt the waters have warmed and black sea bass have moved in," he said. "The quotas haven't done a good enough job at figuring in climate change yet."

About half the morning's catch on Monti's boat were black sea bass. Among the rest were other warm-water fish that are becoming more common in Rhode Island: scup and summer flounder.

After Monti freed the little black sea bass from the hook, he held it in his hand. As the fish age, their scales become more blue. This one had yet to develop the bright coloring, but it was still striking.

“Pretty, isn’t it?” Monti said as he dropped it back into the Bay.

Not everyone loves the fish.

Black sea bass have voracious appetites, hunting on the ocean bottom for crabs, clams and shrimp. The fish don’t have teeth but will swallow crustaceans whole.

Lobstermen complain of pulling up their traps and finding black sea bass inside that have gobbled up their lobsters.

“I see it everyday,” said Lanny Dellinger, a Newport lobsterman and board member of the Rhode Island Lobstermen’s Association. “Everyday, every trawl. It doesn’t matter if it’s mud bottom, hard bottom, deep water, shallow water. There are so many black sea bass, it’s unbelievable.”

The rise of black sea bass is coming at the same time that the lobster catch is on a steep decline in Rhode Island, falling from 8.2 million pounds in 1998 to 2.3 million pounds in 2016, according to the National Marine Fisheries Service.

Lobster is a cold-water species that is moving north as Rhode Island’s waters warm. The higher water temperatures have made the lobsters that remain more susceptible to shell disease. Dellinger and others believe that predation by black sea bass is also pushing down the lobster numbers.

Black sea bass could be contributing to the decline, but the fish is probably not the primary cause, said Jon Hare, science and research director at the National Oceanic and Atmospheric Administration’s Northeast Fisheries Science Center in Woods Hole. Crabs and other crustaceans that the fish eat aren’t feeling similar impacts, he said.

McNamee agreed, saying that the fish generally prey on smaller juvenile lobsters, leaving the bigger ones alone.

As part of a larger study of black sea bass, the Rhode Island-based Commercial Fisheries Research Foundation is analyzing the gut contents of fish caught by nine participating commercial and recreational boats.

“We know that black sea bass do eat lobster, but we just don’t know if the rate of consumption is having an impact on the size of the lobster population,” said Anna Malek Mercer, executive director of the foundation.

One lobsterman sent her photos of a 2½-inch long lobster found inside a black sea bass in a trap.

“When they end up in lobster traps, there usually aren’t any lobsters inside,” she said.

Dellinger wants loosened regulations on both the recreational and commercial sides to allow fishermen to catch more black sea bass. He likened the fish to coyotes that need to be culled or to rodents afflicting farmers.

“It’s like owning a corn bin full of rats and nobody’s allowed to get rid of them,” he said.

Despite the recent changes, scientists and fishermen in Rhode Island say that the management system for black sea bass is still outdated.

Tellingly, none of the New England states has a seat on the Mid-Atlantic Fishery Management Council — one of the two key decision-making bodies for the species — even though much of the fish’s population is located off the region’s coast.

That has meant that allocations remain high for fishing boats in states like Virginia and North Carolina that must sometimes travel half a day north to find the fish, while Rhode Island boats are forced to discard their catch because, local fishermen say, their quotas aren’t high enough.

The southern states don’t want to give up their share because black sea bass fetches a good price — more than \$3 a pound on average — and the commercial fishery is growing in value — tripling since 2009 to more than \$12 million.

The black sea bass study being done by the CFRF is using different gear types — from gill nets to trawls to lobster traps — to gather more data on the species and strengthen stock assessments that may be missing some fish.

Malek Mercer said that scientists are getting a better understanding of the fish’s changing population, but managing the species is the problem.

“For better or worse, science is not going to fix that,” she said. “But if we get our management there, I do think we can have a really strong black sea bass fishery here.”

McNamee described the management system as “deliberative and slow by design.” He acknowledged the frustration felt by Rhode Island fishermen who have seen the state’s traditional groundfish stocks drop off while black sea bass proliferate.

“There’s still way more fish to catch than fishermen can get access to,” he said.

— akuffner@providencejournal.com

(401) 277-7457

On Twitter: [@KuffnerAlex](https://twitter.com/KuffnerAlex)