



2000:
Peak herring
population:
672,000

1996:
536,000

File photo: STEVE HEASLIP/Cape Cod Times

Herring in Brewster's Stony Brook make their way up the herring run.

WARNING SIGNS

Declining river herring runs force 3-year ban on possession

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Some look for the forsythia bushes to bloom, or the daffodils, but for Gayle Condit, it just wouldn't be spring without the annual herring migration.

For more than a mile, these fish are harried by predatory gulls as they battle their way upstream from Cape Cod Bay, up Paine's Creek in Brewster to Stony Brook, climbing the stony steps that lead past the old mill into a string of inland ponds where they spawn and die.

For tens of thousands of years, it's been a ritual of spring from Newfoundland down to the Carolinas. But that migration is now in jeopardy.

This past fall, the state Marine Fisheries Commission passed a regulation banning the possession of any river herring for the next three years because, since 2000, the number of river herring and a similar species, American shad, has been dropping at an alarming rate.

"We had a drastic decline last

Please see **HERRING /A-6**

2005:
2nd lowest
herring
population in
25 years:
102,000

Bournedale reflects trend

Numbers at the herring run have declined to the second lowest point in the past 25 years. In 1980, 91,000 fish were counted.

SOURCE: State division of marine fisheries

"There is something going on out in the ocean." **MICHAEL HENDRICKS**, fisheries biologist

year," said Dave Cavanaugh, the fish warden at the most prolific herring run in the state, the Nemasket River in Lakeville and Middleboro. The run was down to just 400,000 fish from 2 million in 2000. That decline was mirrored at nearly every run in the state and throughout the Northeast, said Phil Brady, the fishery scientist in charge of river herring and shad for the state Division of Marine Fisheries.

The Bournedale run, for instance, was down to just 102,000 fish last year, less than a fifth of what it was in 1996 when 536,000 fish made the pilgrimage. The Cape alone has almost 40 herring runs, and Brewster's Stony Brook is one of its largest and most picturesque.

Something wrong

Condit's husband, Dana, is the longtime chairman of the Brewster Alewife Committee, and they live just up the street. They never installed an electric counter like the one at Bourne-dale, but, after a lifetime of watching the run, they knew something was wrong.

"We just kind of know it. The run is good, but not as good as it has been," Gayle Condit said.

Habitat loss, herring runs that were overgrown and not maintained, or were blocked by some man-made obstruction, plus overfishing of herring as they migrated inshore led to depleted numbers. But large-scale fishing on river herring and shad for bait and fertilizer ended just over a decade ago, and there's no shortage of juveniles returning to the sea each year.

"That leads us to believe there is something going on out in the ocean," said Michael Hendricks, a fisheries biologist with the State College of Pennsylvania and chairman of the river herring and shad technical committee for the Atlantic States Marine Fisheries Commission.

"We can't explain the drop in adult returnees, unless there is a source of undocumented mortality at sea," Hendricks said.

Cavanaugh, and others, point to a greatly expanded sea herring fishery that has brought large midwater trawl-fishing vessels into inshore areas catching abundant stocks of sea herring that are different from river herring in that they don't migrate inshore.

River herring and sea herring look a lot alike and they both can school in the same offshore waters.

Hendricks' committee has asked the Atlantic States Marine Fishers Commission to get the National Marine Fisheries Service and the New England

Dwindling stocks

Why aren't adult river herring (aka alewives and blueback herring) returning from the sea to spawn in inshore lakes and rivers?

1. More natural predators:

■ Seal population is up: Less than 20 grey seals in Cape waters in 1970s. More than 6,000, mostly on Monomoy in Chatham now.

■ Striped bass popula-

tion is up: 5 million fish in 1982. By 1995, there were 41 million fish.

2. Possibly human predation as well:

■ Some scientists believe that river herring are being caught along with sea herring, a greatly expanded fishery in past five years. The sea herring harvest is up: in 1982, 71.3 million pounds; in 2004, 181 million pounds.

Herring life cycle

■ Alewife and blueback herring are known collectively as river herring.

■ Each spring they migrate from the ocean up rivers and streams to inshore lakes and ponds from Newfoundland to the Carolinas to spawn.

■ Larvae hatch and mature to fingerling size, around 3 inches, and

head back out to sea in the summer.

■ They remain at sea for between three and eight years and return to the same water body in which they were born, to spawn and die.

■ Sea herring are a different species that remain at sea their whole life.

and Mid-Atlantic fishery management councils to look into whether river herring are being caught along with sea herring.

NMFS Northeast Fisheries Science Center spokesperson Teri Frady said her agency hasn't received any specific request yet to monitor river herring catches in the sea herring fishery but that all unintended catch is reported on their sampling trips with herring fishermen.

Those samples revealed that less than 1 percent of the sea herring catch included river herring, said Michael Armstrong, a scientist with the Massachusetts Division of Marine Fisheries. But with 181 million pounds of herring caught in

2004, that means about 1.8 million pounds of that catch could have been river herring.

In addition, Armstrong said, if a school of river herring heading back to their spawning grounds is caught, that population could be wiped out.

"The human factor is always pretty high up there," said John Hay, author of "The Run," a book about the Brewster herring run that is considered a classic of nature writing.

"I think we are the big predator and we don't want to share with any other kind of animal," he said.

Brady said there may be other factors besides human ones. Low water levels from drought years in 2000 and 2001 meant that fingerlings couldn't get back out to sea during those summers and died in the ponds.

More predators

Also, predator populations have been on the rise. Seal numbers have increased dramatically since the Marine Mammal Protection Act was enacted in the 1970s. Grey seals alone have gone from just 20 individuals in Cape waters in the 1970s to more than 6,000 on Monomoy in Chatham.

Striped bass also prey on herring and their numbers have increased from 5 million in 1982 to more than 41 million now.

Armstrong said that striped bass and seal populations have reached levels present when Christopher Columbus arrived in the New World. But the river herring populations are 5 percent or less than what they were at that time.

"We're bringing up the predator population and yet we're taking away the spawning ground and blocking the streams of their prey. They are behind the eight ball and it will take a lot to turn them around."

Still, the human toll can be significant. Up until 2005, fishermen could scoop as much as 50,000 fish per year out of the Bournedale run. That would have been roughly half the fish that showed up at the run last year. Last year's cap was set at just 15,000 fish, but when few fish showed up in the early part of the season, it was shut down to fishing.

Brady is hoping the three-year closure will bring back the fish. Condit said she hopes that state regulations will do a better job of discouraging poachers than town regulations did.

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File photo: KEVIN MINGORA/Cape Cod Times

A herring gull downs a fish at Stony Brook in Brewster as the herring make their way up the brook to spawn and die.