

Fish-cams take stock of dwindling herring

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The "scouts," precocious young males checking out the spawning grounds for the first time, are here. When the sun warms the water to 57 degrees, the perfect spawning temperature, the first big wave of herring will charge up the Cape's 40 streams and rivers from offshore.

Maybe.



■ All herring runs in several states, including Massachusetts and Stony Brook in Brewster, above, are closed for harvesting. With 2007 marking the second year of a three-year harvesting ban, no herring can be taken at any of the Cape's 40 streams and rivers.

(Staff photo by Steve Heaslip)

River herring, 200 species of plankton-eating fish that migrate annually inland to spawn, are in alarming decline all along the Eastern seaboard. Scientists are debating whether pollution, habitat loss, fishing pressure, increased predation by resurgent seal and striped bass populations, or some combination of factors are behind the river herring drop-off.

Last year, Massachusetts joined Connecticut, Rhode Island and North Carolina in instituting a three-year moratorium on catching river herring. State Division of Marine Fisheries anadromous fish expert Phil Brady says data gleaned from last year's herring runs is discouraging.

"Unfortunately, we are seeing these declines more than just regionally," he said.

In 2005, there were 692,827 pounds of river herring landed from South Carolina to Maine. In 2004, more than 2.1 million pounds were landed.

One of the best runs in the state, in terms of volume and accurate historical data, is the Bournedale run. Equipped with an electronic counter that forces fish to pass by in single file, the run had 536,000 fish pass up the fish ladder to Foundry Pond in 1996. In 2005, the count declined to just 102,000 fish. Last year, the count dropped to 75,000.

State officials plan to install at least four or five video cameras at the Bournedale and other Massachusetts herring runs this year.

They will replace the electronic counters, which are expensive and tend to impede the flow of the migration. The University of Massachusetts at Amherst's Cooperative Fish and Wildlife Research Unit is hoping to use a

computerized recognition program to automatically count the fish.

At Brewster's popular Stony Brook runs, Joan Muramoto, a senior scientist at the Association to Preserve Cape Cod, is using an underwater video camera with night vision to see whether significant numbers of fish move at night. The official count will be done by a pool of 20 to 25 recently trained volunteers.

Brady said scientists look at the numbers of fish returning to each stream as well as the age of the fish. Just as a large age spread, from newborns to mature adults, is indicative of a healthy human population, the same is true of fish populations. If large numbers of the returning river herring are from the same year, it could mean that conditions were favorable for spawning and survival the year they were born. With more spawning-age adults around to produce more babies, that could trigger a population boom.

But those herring "baby boomers" are nowhere to be seen so far.

River herring used to be a food source for Indians and early colonists but is now largely used as bait for striped bass and lobster.

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