

For Maine's alewives, the possibilities are as large as the threats

By Mike Crocker
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Alewives are closely woven into the fabric of eastern Maine's economy as it is to the region's ecology, the steady decline of alewives, sometimes called river herring, prompts some fishermen and scientists to talk about the loss in both social and biological terms.

"If you want dollar-a-pound codfish and had-dock again, then you need to take care of the 5 and 10 cents a pound herring," said Ted Ames, a lobsterman from Stonington, whose research on Maine's inshore cod stocks shows that the ground-fish began to vanish alongside alewives at the turn of the last century.

"In the past, alewives provided a forage base that held cod inshore over the winter, sustaining a robust seasonal fishery," he said. "The decline unraveled numerous systems in the ocean as well as the communities that depended on them on land."

But, just as the disappearance of alewives foreshadowed a devastating blow to fishing communities so long ago, a handful of restoration projects instill hope for renewed prosperity in the future.

At just nine to 11 inches in length, with a stripe of blue running down its spine to a sharply forked tail, a full-grown alewife cuts an athletic figure. Along its sides, blue fades to gray and then to iridescent silver at the serrated scales that mark the midline of its underbelly and flash like bits of sea-glass in sunlight.

Commonly called river herring, sawbellies, kay-aks, branch herring or freshwater herring, the fish are among a handful of anadromous species that live in the ocean and return seasonally, in droves, to spawn from Labrador to South Carolina in the freshwater lakes, rivers, and streams of their birth.

This peculiarity made alewives vulnerable to human development in the early 1800s as mills, dams and towns spread across the landscape during the Industrial Revolution.

The species is also targeted by commercial and recreational fisheries as it moves between land and sea.

Commercial landings in New England peaked

in the 1960s, contributing to the loss of some runs that vanish altogether.

"In places like Massachusetts, New Hampshire, Rhode Island and Connecticut, many of the herring runs are ecologically nonexistent at this point," said Mike Brown, who studies herring for the Maine Department of Marine Resources (DMR).

In fact, things got so bad in Massachusetts last year managers imposed a moratorium on the recreational and commercial fishery.

Several communities in Maine still celebrate the connections between herring and history, with events like the Spring Running Festival held in downtown Augusta (see www.springrunning.com for details).

But Brown said that ensuring the long-term survival of alewives rests on a new level of cooperation by fishermen, scientists and the public.

"Dams and other blockages in rivers and streams pose a tremendous threat to river herring. If the fish are unable to enter the rivers and streams, they are unable to spawn; similarly, if they are blocked from entering the ocean, they also cannot survive," he said.

To improve the fish's chances, the Damariscotta River Association (DRA) began working to restore and maintain critical alewife habitat at The Mills complex in Newcastle over 20 years ago.

"Our Alewife Initiative is a community-supported project that restored one of the oldest fish ladders in the country, dating back to the early 1800s, and allows a strong traditional run to continue," said Mark DesMeules of the DRA. "Each spring thousands of people travel to watch the alewives come up the ladder."

With the help of the Damariscotta Lake Watershed Association, the restoration project includes an interpretive component that helps visitors draw connections between alewives and the larger ecological system, DesMeules said.

The groups produced a documentary on the alewife run, titled "Closing the Circle," which is available at www.dra.org.

Another group, the Penobscot River Restoration Trust (www.penobscotriver.org) has joined

efforts to restore alewife habitat in that watershed. The Mills is still home to a small annual harvest managed by the state, and DMR scientists also stock rivers and lakes with fry to boost reproduction rates.

But even if the alewife's passage to the Gulf of Maine can be safeguarded, the fish still face a threat at sea: trawl nets.

Alewives mingle with other species like blue-back and Atlantic herring, subjecting them to the high volume catches of some of the largest fishing vessels in the region as well as natural predation from fish such as striped bass, which have increased dramatically in recent years.

However, because various herring species are so difficult to tell apart and the fleet's harvests are so large — in some cases pumping close to one million pounds of herring through vacuum-like tubes in a single day — the only reliable way to distinguish them is to analyze the catch when it's offloaded.

"We don't have good baseline data for alewife health because observers on herring vessels have a hard time documenting harvests. It's very difficult to ID closely related herrings during the pumping process. They tend to be the same size as Atlantic herring, so they fit through the grates, and the volume pumped during the fishing process is huge. If you put river herring and Atlantic herring side-by-side, you can tell the difference without much training. The problem is really the size of the task," said Matt Cleri, another herring researcher with Maine DMR.

Some fisheries groups have been pushing for increased observer coverage on herring vessels to help monitor the catch.

Later this year, the Atlantic States Marine Fisheries Commission (ASMFC) will oversee the first stock assessment specific for river herring, pooling data from across the species' range. "The effort will provide us with the best overall view of the fishery's health to date," Brown said.

Information that is not only critical to scientists studying alewives, but potentially to thousands of jobs a major rebuilding could support.

"We're talking about the possibility for a multi-billion dollar industry. A whole suite of enterprises: groundfish, tourism, lobster, recreational fishing. It could be an economic bonanza," said Ames. ▼