

Threat of Spread

The threats posed by the alewives are not limited to Lake St. Catherine. Water from Lake St. Catherine flows into Little Pond and over a dam into Mill Brook. Mill Brook enters the Mettawee River which empties into the Barge Canal and then southern Lake Champlain.



The implications of alewives becoming established in Lake Champlain are serious. The multi-million dollar Salmonid Restoration Program run by Vermont, New York, and the U.S. Fish & Wildlife Service could be in jeopardy. Direct competition from alewives could negatively impact native fish communities including smelt, yellow perch, and other important forage fish which game fish

populations such as trout, salmon, and bass depend on.

It is imperative that anglers be aware of the potential impacts of alewives and help prevent their spread.

NEVER discard live baitfish into a lake.

NEVER transport fish from one lake to another.

The illegal introduction of the alewife into Lake St. Catherine and other waters is a very serious matter and carries stiff penalties. The Vermont Department of Fish and Wildlife urges anyone having information regarding this to call the OPERATION GAME THIEF hotline at 1-800-75ALERT.

For further information, please contact District Fisheries Biologists at :

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THE ALEWIFE



IN LAKE ST. CATHERINE

A Threat to Vermont's Native Fish populations ?

Agency of
Natural Resources

Vermont Department of Fish and Wildlife
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The Alewife: An Aquatic Invasive Nuisance Species

Background

In July of 1997, Vermont State Fisheries Biologists discovered alewives in Lake St. Catherine, Rutland County. State Biologists are concerned that the establishment of this exotic fish species in Vermont waters could prove to be a major threat to native forage and game fish populations.

The alewife (*Alosa pseudoharengus*) is a marine fish species from the herring family. Native populations of this fish inhabit the Atlantic Ocean. Each spring, adult alewives migrate into freshwater rivers to spawn. The young hatch in the rivers, reside there for the summer, and then migrate out to sea in early fall where they mature as adults. Alewives can, however, survive in freshwater. Alewife populations have become established in the Great Lakes and many landlocked lakes in New York, Maine, Connecticut, and other New England states.

Problems

When landlocked populations become established, they tend to cause serious problems in native fish communities. Alewives reproduce quickly and can soon become the most dominant fish species in a lake. They are very efficient feeders and consume huge quantities of zooplankton, which other fish species depend on. As a result of this competition, populations of



PHOTO : Crews clean up thousands of dead alewives after a massive die-off in Lake Michigan. Die-offs such as this could happen in Lake St. Catherine or in Lake Champlain if alewives were to become established there.

other important fish such as rainbow smelt, yellow perch, and baitfish may suffer enormously. In other states where Alewife have been introduced to inland lakes, numbers of smelt, perch, and other smaller fish have often declined dramatically.

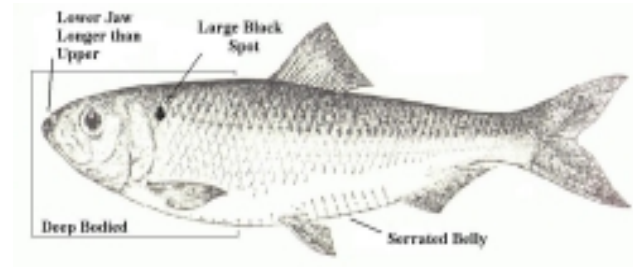
In addition to competing with other fish species for food, alewives are known to also feed directly on the young of these fish. Yellow perch, smelt, and baitfish, as well as young panfish, bass, trout, and salmon are eaten by adult alewives. The resulting pressure on native fish species could have a drastic and long-lasting impact on the important fisheries these species sustain in Vermont

Alewives offer no angling opportunities themselves, and they are unreliable as a forage fish. Alewife populations are known to go through wildly fluctuating “boom and bust”

cycles, where annual die-offs of tens of thousands of fish at a time occur. The remaining fish quickly re-build the population; however, this mass mortality results in literally thousands of dead fish washing up on shore, creating bad odors and public health concerns.

How to Identify the Alewife

- Ranges from 3" to 10" in length
- Silvery, with a blue-green metallic luster along the back
- Large black spot behind gill cover
- Body is deep
- Lower jaw protrudes beyond upper
- Underside of belly has a distinct serrated edge where scales from each side of body meet and overlap



- In cross-section, the alewife is compressed laterally, as opposed to the smelt, which is more tubular in shape

