

# ALEWIVES: A NEW THREAT TO THE LAKE?

*by Bill Wellman, BRASS and Trout Unlimited Member*

Lake St. Catherine is in southwestern Vermont and it empties into Lake Champlain through the Mettawee and Poultney Rivers. On the night of July 21, Vermont Fish & Wildlife fisheries biologists were conducting electro-shocking fish surveys in Lake St. Catherine when they received a major shock themselves.

Shawn Good, a recent employee, looked into the net. "I didn't know we had alewives in Vermont," he said to his companion Chet Mackenzie.

"We don't," Chet replied emphatically.

Unfortunately, Chet was wrong. Shawn and Chet subsequently identified thousands of alewives in Lake St. Catherine.

The alewife (*Alosa pseudoharengus*) is a member of the herring family. Anadromous, it makes yearly runs up coastal rivers to spawn. Previously unknown in Vermont, its freshwater presence in New York was limited to the Finger Lakes, the Great Lakes, and a few isolated areas in other locations. The landlocked version averages 5 inches in length. Once introduced, it adapts readily to freshwater, and possesses a number of very dangerous traits for native fish populations.

Alewives are voracious feeders and compete with yellow perch, bass and trout for food. Rainbow smelt and shiners, a primary food source for lake and rainbow trout, are decimated in competition with alewives. Alewives also feed directly on young salmon and trout fry. One particularly nasty trait of the alewife population is a "boom and bust" life cycle in which thousands die at onetime, washing up on beaches, where they smell - what else - like dead fish. The fluctuating population base also makes them an unreliable food base for predatory fish.

An especially dismal characteristic of the alewife is an enzyme they carry which destroys vitamin B1 in Atlantic salmon. After consuming alewives, the salmon will continue to spawn. However, the fry die shortly after hatching. Thus, if the alewife becomes established in Lake Champlain, the Atlantic salmon restoration program could be ruined.

How did this dangerous exotic get into Lake St. Catherine? No one knows for sure, but suspicions point to a fisherman who may have thought he was introducing a good forage fish.

Regardless, the outlook is not favorable. Larry Strait, NYS Department of Environmental Conservation Region V Fisheries Director said, "We share the opinion of Vermont fisheries biologists that sooner or later alewives will become established in Lake

Champlain." Shawn Good, who made the discovery, is equally concerned. "If alewives were to become established in Lake Champlain, they have a huge potential to upset the forage base, especially the rainbow smelt. The smelt is the primary food for both salmon and trout."