HERRING HEARSAY

In what should be America's most important river-herring refuge, superstition suppresses these imperiled fish.

By Ted Williams

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PHOTO: DOUG WATTS

This from Albion Goodwin of Pembroke, Maine—governor-appointed fish-and-wildlife advisor to his state and the man who, on behalf of the Grand Lake Stream Guides Association, has probably done more than anyone to set management policy for river herring in the Pine Tree State's vast St. Croix River system. "They're trash fish; they're of no value." Maine has more river-herring habitat than all other states combined. And the St. Croix—which, from source to sea, defines the boundary between the United States and Canada—has more river-herring habitat than all other Maine rivers combined.

More on Goodwin and the guides later. But first some background on the fish. "River herring" is the collective name for two close relatives, rarely exceeding 14 inches in length and so similar they're managed as a single species: the alewife; and the slightly sleeker, smaller-eyed blueback herring.

No spring tonic was more curative to the spirits of winter-weary anglers than the first pulse of river herring in rills and rivers from Nova Scotia to Florida. One morning in mud season, water that had appeared lifeless the day before would surge with a storm of protein from the Atlantic. Below towering hydroelectric dams and tiny, crumbling mill races, at the outfalls of giant fish lifts and rickety fish ladders, they'd spiral like star clusters, spooking themselves, dashing down-current and then moving back and holding. Easing into the northern and southern estuaries with this rich forage were all manner of inshore and even pelagic fish such as striped bass, bluefish, cod, haddock, pollock, tunas, mackerels, sharks, weakfish, redfish, snook and jacks.

River herring (many of which die after spawning in fresh water) transferred nutrients from the fertile marine environment high into sterile, glaciated feeder streams where eggs and fry and rotting carcasses

fueled vast aquatic and terrestrial ecosystems. The sea energy flowed into aquatic insects, thence to fish, frogs, turtles, salamanders, warblers, flycatchers, bats, ospreys, herons, egrets, kingfishers, otters, minks….

In New England and southern Canada, Atlantic salmon kelts would recondition themselves by gorging on ascending river herring. Weeks later the spawned-out herring would provide "cover" for ocean-bound smolts (nourished from parrhood on herring fry and roe) as they swept tail-first past ravenous predatory birds and fish.

Hitchhiking on river herring were glochidia, the parasitic larvae of freshwater mussels that detach and colonize the bottom of streams and still water, feeding fish, diving ducks and mammals and maintaining water quality by filtering out organics. In short, river herring were, as Aldo Leopold wrote of passenger pigeons, "the lightning that played between two opposing potentials of intolerable intensity"—in this case, the fat of the sea and the precipitation of the sky.

I suppose I'm not quite correct in referring to these fish in the past tense because they're not quite exterminated. For example, in 2007 a total of 69 river herring (all bluebacks) were counted at the Holyoke, Massachusetts, fish lift on the Connecticut River. This was down from 630,000 in 1985. In response to the range-wide plunge toward oblivion, North Carolina, Rhode Island, Connecticut and Massachusetts have placed moratoria on harvest of river herring. And the National Marine Fisheries Service (NMFS) has declared them "Species of Concern."

Some have attributed the decline to the concurrent resurgence of striped bass, but most biologists consider this a lame theory. "It doesn't make sense that a predator that co-evolved with its prey could chow it down to this level," says Steve Gephard, Connecticut's anadromous fish chief who grew up on the Connecticut River in the days before the striper crisis and remembers when tributaries "ran black, to use the cliché, with river herring."

Also concurrent with the demise of river herring has been a gross proliferation of industrial, midwater trawlers targeting the Atlantic herring, a non-anadromous cousin. "We don't have the data to support anything, but many, many of us feel that by-catch in the Atlantic herring fishery is a factor," says Gephard. "In the past, it seems that there has been an unwillingness to examine by-catch…. I suspect that no one wanted to heap constraints on one of the few remaining viable commercial fisheries in the Northeast. However, closer examination indicates that there is a lot of unreported by-catch in this fishery (as judged not by observer data but by professionals monitoring the docks and the fish markets)."

Back to Albion Goodwin and the Grand Lake Stream Guides Association, the driving forces behind river-herring management on the most important river-herring river in our most important river-herring state. In 1981, improved fish passage at Milltown, Maine, allowed river herring (all alewives) access to much of their historical spawning habitat in the St. Croix system, including Spednic Lake, mostly in New Brunswick.

In this part of Maine, fishing guides make most of their living not from the indigenous brook trout or landlocked salmon but from the alien smallmouth bass that have suppressed both these natives, particularly the former. As native alewives were recovering, Spednic's alien bass were crashing. To the guides this could mean only one thing. They proclaimed that alewives were responsible. For those who knew something about bass and alewives —fisheries biologists, for instance—this seemed unlikely. Bass

were doing splendidly everywhere else in the system. In fact, they were doing splendidly everywhere else in the world where they cohabitated with alewives. In many of these waters, the alewife forage base is what enables bass to reach trophy size.

While there were no studies, it's far more likely that Spednic's problems resulted from a new regime of summer water draw-downs for agricultural irrigation, also concurrent with the bass crash. While bass eggs and fry are known to consistently thrive among alewives, they are known to consistently die among, say, trout lilies and tiger swallowtails.

The best description I've seen of the guide's reasoning issues from John Holyoke of the Bangor Daily News. "Primitive people," he explains, "believed that trees caused the wind to blow. Every time the wind blew, the branches were flapping back and forth. The harder the branches flapped, the harder the wind blew." Obvious solution: chop down the trees.

As Fred Kircheis, then director of the Maine Atlantic Salmon Commission, told me at the time: "The fact that we have anadromous alewives and bass happily coexisting in other places in the state doesn't influence the guides' opinion. They know what they know."

Accordingly, the guides prevailed on their local state legislators to sponsor a bill requiring the Maine Department of Inland Fisheries and Wildlife (IF&W) to block the St. Croix's alewife run at the Woodland and Grand Falls dams. The bill—which may well be illegal because the U.S. and Canada had agreed to manage the river as an international waterway—became law in 1995. An outraged U.S. Fish and Wildlife Service warned IF&W that if the fishways weren't opened by 2003, the state could lose its annual $2.5 million in Wallop-Breaux funding. The threat proved hollow.

The law also outraged the Canadians. To maintain genetic stock for restoration—in the event that Maine ever came to its senses—they began moving alewives around the first dam at Woodland. Still, the run fell from about 2.5 million to a few hundred fish. Overseeing the trapping and trucking of alewives has been Dr. Fred Whoriskey of the Atlantic Salmon Federation, based in St. Andrews, New Brunswick. "There was a sense of shock among Canadians that on this mutually-agreed-upon international waterway unilateral measures like that would be taken," he says. "Our mandate is to conserve fish stocks, not knock them down to almost nothing. The only threat of anadromous alewives to any other fish is indigestion."

In 2001, enlightened Maine legislators attempted to repeal the law with a bill supported by the Maine Department of Marine Resources and IF&W. It passed in the state Senate but was shouted down in the House, thanks largely to guide-generated misinformation recycled by then Representative Albion Goodwin (D-Pembroke).

Here's what Goodwin told me shortly after the bill's defeat, his voice rising until he sounded like a cicada: "The director of IF&W cannot introduce alewives without a vote of the legislature…. That includes the marine resources idiot, too. They're two commissioners from away—one from Arizona and one from Virginia. I told the governor to hire a Maine person who knows the lakes and rivers, but he's from Virginia. What does he care? Fred Kircheis is running for cover 'cause I told him I was all done funding him. I'll shut him off, and he'll start running back to Minnesota. The goddamned Canadians wanted to raise alewives for fertilizer and bait. I told those sons of bitches to build a fishway on their side of the river. I sent 'em all packing: 'Get the hell out of Calais before I have you run out as terrorists.' And away they went a-running."

After we published this oration in *FR&R* (See "Dam Removal," April 2002) the Bangor Daily News phoned to ask me if I had just been kidding around because, well, no real state law maker would talk that way, right?

Since then, Goodwin, the guides and the state have a plethora of new information on which to draw conclusions. This has been supplied by an exhaustive, two-year study funded by NGOs and state and federal agencies, with scientific oversight from NMFS, the U.S. Fish and Wildlife Service, IF&W, the Maine Department of Marine Resources, Canada's Department of Fisheries and Oceans, the New Brunswick Department of Natural Resources and the St. Croix International Waterway Commission. Ten lakes were examined—three cohabitated by bass and alewives, six with just bass, and one with bass but alewives that only showed up in some years.

"There was no systematic difference in young-of-the-year smallmouth bass length or condition based on the presence or absence of anadromous alewives, nor was there an interaction between lake or year and alewife presence," reported the researchers. They also collected data from bass tournaments on 13 lakes in Maine and New Brunswick and found "no systematic difference in the weight of tournament entries…between lakes with and without alewives."

Before the study, Rick Jordan, IF&W's regional fisheries biologist, had expressed to me his belief (shared by virtually none of his peers) that alewife recovery might indeed limit bass. But when I interviewed him on February 27, 2008, he told me that, on the strength of the study, he has concluded that reopening the two dam fishways at Woodland and Grand Falls to alewives poses no danger to bass. That's what scientists do—they read studies, consider data and then draw conclusions.

At behest of the conservation group Maine Rivers, and with the enthusiastic support of the state management agencies, Senator Dennis Damon (D-Hancock), chair of the Marine Resources Committee, has sponsored a bill (LD 1957) to restore alewife access at the two fishways. The bill would allow recovery of the species in only about a quarter of its historic habitat in the St. Croix system. Interdiction would continue at Spednic Lake and West Grand Lake.

But on March 19, the Maine legislature's Marine Resources Committee, cowed by the guides and the Passamaquoddy Indians (who have swallowed the guides' wives' tales hook, line, boat and motor), effectively killed the bill by recommending a "compromise." Alewives would be allowed to pass the Woodland Dam but would continue to be blocked at the Grand Falls Dam. Alewife habitat between Woodland and Grand Falls is marginal, and the Canadians have been trucking alewives there anyway. So there's no biological gain.

Providing the guides with grist for more obfuscation has been the recent advent of alien landlocked alewives to East Grand Lake, Big Lake and Grand Falls Flowage. In the Great Lakes ale-wives, which arrived in Lake Ontario via the Erie Canal or perhaps via a fisheries manager in the mistaken belief that they were shad, became landlocked and are a major scourge to salmonids. They contain high concentrations of thiaminase, an enzyme that degrades vitamin B-1 (thiamine) in some predator fish that eat them, thereby killing fry in the swim-up stage.

In the late 19th Century, the few native Lake Ontario landlocked salmon that made it past dams probably were already critically deficient in thiamine. No wild fish were seen after 1898. Landlocked alewives don't appear to affect bass. And, while there's no evidence that they affect Maine salmonids,

they might because, unlike sea-runs which co-evolved with those salmonids and which are in and out of the system in a few weeks, they're present all year.

The guides have argued that the landlocked alewives infesting the upper St. Croix system derive from sea-run fish. But the recent study used DNA analysis to establish that they are "genetically distinct from anadromous alewife populations" and are "almost certainly" the result of illegal stocking. Anyone who fears alien landlocked alewives (and fear is justified) should get behind anadromous alewife recovery.

Pat Keliher, director of the Maine Bureau of Sea Run Fisheries and Habitat, offers this: "My staff believes that anadromous alewives are going to displace landlocked alewives. They'll outcompete them."

In light of all the new data, one might suppose that the guides would be resting easy. But no. When I asked Keliher if he'd gotten through to any of them, he replied: "I reached out to the Grand Lake Stream Guides Association when we found out about this new bill. And they said, 'We don't want to meet with you.' I've had several of them call since then to complain that the state is supporting alewife reestablishment. But it's been a one-sided conversation."

Speaking through their parent outfit, the Maine Professional Guides Association, the Grand Lake Stream guides charge that LD 1957 is the work of "growing numbers of environmental extremists," that partial recovery of a native fish in its alien-polluted habitat would be an "ecological disaster" and that the bill "jeopardizes the livelihoods of Maine's famous Grand Lake Guides."

According to the guides, the alewives will choke storied Grand Lake Stream, leaving no room for landlocked salmon—this despite the fact that when alewives had access to the two fishways and there were 2.5 million of them in the system, none were seen in Grand Lake Stream because none had spawned in the lake that feeds it. That lake, West Grand, had been blocked to alewife migration; and it will continue to be blocked even if LD 1957 becomes law.

Further, the guides warn that anadromous alewives are Typhoid Marys, sure to blight the system with viral erythrocytic necrosis and infectious salmon anemia. But Keliher reports that there's no evidence of anadromous alewives infecting any fish with any disease anywhere in Maine. "If this were a real threat," he says, "we'd have to shut down alewife restoration throughout the entire state."

Finally, according the guides' February 8, 2008 Urgent Alert, "Regional IF&W fishery biologists who oppose the bill because of the potential impact of alewives on inland species will not be allowed to testify." This is an untruth.

First, regional fisheries biologists do not oppose the bill. Second, they wouldn't be allowed to testify on any such legislation, even if they wanted to, and they don't. The agency position is traditionally provided by a single spokesman, and in this case the lead agency (the only one that gets to testify) is the Maine Department of Marine Resources.

Albion Goodwin, who left the Maine House of Representatives in 2004, still speaks for the guides in his capacity as a member of IF&W's Advisory Council. He vows he's going to kill the bill, which he describes as "asinine and ridiculous" and brags that he's given the Department of Marine Resources such "hell" that it's sure to withdraw its support. He doesn't believe anything in the study. In fact, he hasn't read it. "Why wouldja even think the alewives should be in the St. Croix?" he demands.

The landlocked alewives that first showed up in East Grand Lake, he avers, derive from anadromous fish "brought up from the river in buckets." When I informed him that the researchers had determined, through DNA analysis, that this is not so, he said: "Forget it. They're lying."

Then, after recycling all the guide-generated superstitions about smallmouth bass and alewives, Goodwin launched into a harangue about the lack of fish in the St. Croix and its estuary. "The entire river's depleted; they're ain't no fish. In the last 15 years I've caught no haddock and no cod."

"Do you think this might have something to do with the lack of forage fish?" I asked.

"Nope. It has to do with the Russians. The goddamned fools in Washington, D.C. let 'em clean everything out. Thirty years ago I'd go out a hundred feet and, fishing a hand line, I could fill the boat up to the gunnels with haddock. We'd knock all the codfish off the hook. We didn't want the codfish. We used to have stripers come up the river. We used to have a striped-bass tournament in Calais!"

"Do you think that maybe the stripers followed the alewives upriver like they do everywhere else?" I inquired.

"No. They left because of the Russians."

Recalling that my roll as an educator should not begin until I start punching my keyboard, I thanked him for his time and told him to have a great day.