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Environmentalists Vs. Native Trout

Knee-jerk environmentalism is endangering many of our vanishing species

By Ted Williams

Fly Rod & Reel, April 2004

Having been an environmental activist for most of my life and having worked for and with national environmental organizations for 30 years, it grieves me to report that the biggest and, in many cases, only impediment to recovery of vanishing native trout is the environmental community.

That's not to say that most environmental outfits actively oppose trout-restoration projects. And that's not to say that the few who do wouldn't back off if they'd stop talking long enough to listen to biologists.

Enviros tend not to see, handle or understand fish and to distrust the motives of agencies dedicated to their recovery. Thus, in announcing a lawsuit to halt use of TFM, a remarkably safe and selective chemical used since the 1950's to kill sea lampreys, a splendid organization like the Vermont Public Interest Research Group can advance the argument that Atlantic salmon-native predators every bit as ecologically important to Lake Champlain and its basin as wolves to greater Yellowstone-are being restored "strictly for sport fishing."

Without two naturally derived piscicides-rotenone (from derris root) and antimycin (from bacteria)-most native fish restoration simply cannot happen. Rotenone has been used to kill fish for centuries on two continents; modern fish managers have used it for the last 70 years. In all that time there has never been a documented human injury. There's no record of antimycin, introduced for fish control in the mid-1970's by Searle Pharmaceuticals, harming anyone either. Both rotenone and antimycin are easily neutralized with potassium permanganate, and both break down fast in the environment. In fact, one of antimycin's few drawbacks is that it sometimes breaks down too fast; under some conditions its half life is less than an hour. Antimycin's great advantage is that the recommended dosage is usually between 8 and 12 parts per billion, so you can strap a bottle on a pack horse and treat a whole chain of high-country lakes. And, unlike rotenone, fish can't smell it and therefore don't take evasive action.

But enviros tend to fear all pesticides. Moreover, they frequently reject as spin all data that proves a pesticide safe even as they spin data themselves to depict it as dangerous. For example, the environmental community parrots the fiction that rotenone, applied to fish habitat at 0.5 to 4 parts per million, has been "linked to Parkinson's disease." It conjured this from an unrelated study in which Emory University researchers induced Parkinson-disease-like symptoms (not Parkinson's disease) in lab rats by mainlining concentrated rotenone into their brains.

Although rotenone and, to a much lesser extent, antimycin kill a very few non-target gill breathers such as insect larvae, these organisms bounce back within weeks-and, with their alien fish predators removed, they are far more prolific.

One of the most effective environmental outfits I know is the Center for Biological Diversity. I work closely with it in my environmental reporting, and I have helped raise thousands of dollars for it through my work on a major charitable foundation. As its name implies, it exists solely to protect "biological diversity." Except that the threatened Paiute cutthroat, probably the rarest trout in the

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world, doesn't count with the center.

Citing wives' tales and spewing pseudo science, the center has derailed Paiute recovery by suing the US Forest Service and thereby frightening away the California Department of Fish and Game, which has jurisdiction over native fauna and doesn't need the Forest Service anyway. About 11 stream miles of California's Silver King Creek watershed in the Carson-Iceberg Wilderness of the Toiyabe-Humboldt National Forest comprise the entire native range of the Paiute cutthroat. In 1912, before bucket biologists made mongrels of all the fish in all their natural habitat, another bucket biologist-tending sheep in the area-inadvertently saved the Paiute by transporting a few trout to a fishless stretch above impassable Llewellyn Falls.

Had the Forest Service proceeded in the fall of 2003 as planned, it would have accomplished a first in salmonid management-restoring a native to 100 percent of its historical range. Then the Fish and Wildlife Service would have removed the Paiute from the Endangered Species List, another first. But could delisting have been an unwelcome development for the litigious center, reducing its arsenal of legal weapons? Yes, according to one professional trout advocate who worked hard for the project, even helping managers evacuate some of the mongrels to a different watershed in order to placate local sportsmen: "When an organism loses its Endangered Species Act protection it's no longer any use to groups like the Center for Biological Diversity."

"If you're attempting to fix an expensive watch, you don't reach first for the sledgehammer; neither should the state necessarily be poisoning streams in a wilderness area without looking at other options," proclaims the center. Had it read the literature, it would have understood that there are no other options. The stream's too big for effective electro-shocking. And, while antimycin (classified by EPA under "no threat to human health") would be great, it's no longer registered in California because the only manufacturers (Nick and Mary Romeo, working out of their home) can't finance the endless lab tests required by the state's new pesticide code."

"This watershed," continued the center, "is historic habitat for the mountain yellow-legged frog, a species in serious decline." Had it read the literature, it would have understood that yellow-legged frogs don't occur in the proposed treatment area.

As part of a legal settlement with the center the Forest Service is currently engaged in more National Environmental Policy Act review, re-studying everything the state has already studied and everything the scientific community already knows about rotenone and fish reclamation. The agency hopes to resume work in the fall of 2004, but the NEPA process leaves the project vulnerable to endless appeals by the center and others.

The Pacific Rivers Council, with which I also work closely and for which I also have helped raise thousands of dollars, does all sorts of fabulous work, too. Yet it swallowed the BS about rotenone hook, line, boat and motor. It filed a scathing critique of the project's first environmental assessment; and it issued an "action alert" in which it recycled the misinformation about the yellow-legged frog and made the astonishing claim that "neither the Silver King Creek nor Tamarack Lake drainages historically supported the threatened Paiute cutthroat" when these were the only habitats that had supported it.

The National Audubon Society is making progress. For example, its magazine recently condemned "chemophobes" and defended piscicides in a piece entitled "Trout are Wildlife, Too." But the society is routinely embarrassed by its affiliates. Seven years ago the California Department of Fish and Game rotenoned alien pike in 4,000-acre Lake Davis in order to protect endangered steelhead trout and chinook salmon of the Sacramento and San Joaquin river systems. [See "Fish Poison Politics," March

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2001.] But, instead of helping fight a real threat to biodiversity, local Audubon members and other enviros attacked an imaginary threat to water quality. They mounted vicious protests, held all-night candlelight vigils, chained themselves to buoys, cursed, wept, marched around the lake with placards that said things like "Burn in Hell, Fish & Game!" For crowd control the state deployed 270 uniformed officers, including a SWAT team. Currently, on the National Audubon Society's Web site, Harry Reeves, editor of the Plumas Audubon Chapter's newsletter, goes on and on about the alleged evils of rotenone and laments: "Bald eagles, white pelicans, and other birds and mammals scavenged poisoned carcasses that lined the shores." They did indeed, and not one was sickened because rotenone-killed fish don't harm wildlife.

Also weighing in on the Web site is one Ann McCampbell of Santa Fe, New Mexico-the nation's busiest piscicide protestor, who rarely misses a chance to spread bogeyman stories about rotenone and antimycin and who professes to be so allergic to all chemicals that she can participate in public hearings only by phone-a tedious, time-consuming process that tests the patience of everyone involved. The rotenone used in Lake Davis, writes McCampbell, who also claims to be a medical doctor, "made residents sick." It did not.

Concern for people and scavengers is admirable even when based on hogwash. But now that pike are back in Lake Davis (possibly because of sabotage) and now that Fish and Game is too frightened to eliminate them, I wish the environmental community would express as much (or even some) concern for the endangered salmon and steelhead, which surely will be ushered into oblivion unless rotenone is used again.

To save Montana's state fish, the westslope cutthroat trout, the Montana Department of Fish, Wildlife, and Parks proposes to kill introgressed Yellowstone cutts dribbling alien genes into the South Fork of the Flathead River. To do this it must apply antimycin and rotenone to 11 high-elevation ponds in the Bob Marshall Wilderness. The westslope cutt, named for Lewis and Clark, is as much an icon of American wilderness as the grizzly. So you'd think that any group advocating wilderness would rally to the defense of this magnificent, vanishing creature.

But Wilderness Watch is doing its best to kill the project, making absurd and untruthful pronouncements such as "Poison has no place in wilderness stewardship." (Piscicides are essential to wilderness stewardship.) And: "Both poisons have adverse effects on aquatic biota." (They do not.) Wilderness Watch expresses outrage that managers would have to make some noise with motorboats and helicopters. And while it correctly observes that the ponds were originally fishless, and might even make a case that they should remain so, it claims that the westslopes (to be stocked as eyed eggs) have been diminished by domestication and therefore threaten the natives. Considering the gross genetic pollution now underway and the group's ongoing attempt to block removal of the mongrels, I can't imagine a more hypocritical and disingenuous argument.

In New Mexico's Gila National Forest, Wilderness Watch has been agitating against the use of antimycin in the ongoing recovery of the Gila trout, America's only endangered trout. It's all about sport, according to Wilderness Watch: "The purpose is to remove stocked trout and replace them with the listed Gila trout, in an effort to boost the population to a level that will allow delisting and resumed sport fishing of the species." Other untruths include: "It is not known whether antimycin is a carcinogen." (It is known that it's not.) And: "It is highly likely that the poison will adversely impact the endangered Chiricahua leopard frog that inhabits the area." (1. The Chiricahua leopard frog is threatened, not endangered; 2. Antimycin is very easy on juvenile amphibians, has no effect on adults, and the Forest Service evacuates tadpoles from target streams anyway.) And: "The poison antimycin will kill . . . all the native macroinvertebrates and amphibians in the streams." (Most likely it will kill none of the amphibians, and it will kill very few macroinvertebrates. Researchers from the

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University of Wyoming's Department of Zoology and Physiology, reporting on their stream studies, write: "Antimycin alone seemed to have little to no effect on invertebrates, with drift rates not substantially different than control sites during the antimycin addition.")

Wilderness Watch is also trying to derail restoration of New Mexico's state fish-the Rio Grande cutthroat, endangered in fact if not by fiat. It upbraids the state's Water Quality Commission for ignoring the rantings of Ann McCampbell who, for example, testifies that the antimycin label carries "a skull and crossbones . . . warning that it is fatal in humans if swallowed." (I'd agree that the public shouldn't drink it from the bottle.) Here, too, the alleged motive is frivolity and greed: For no purpose other than to amuse anglers and generate license revenue, the U.S. Forest Service, the New Mexico Department of Game and Fish and the US Fish and Wildlife Service are conspiring to "dump poison in 30 miles of Animas Creek and 21 miles of the Gila River to kill introduced non-native trout and then re-stock the streams with native Rio Grande Cutthroat trout. . . . The Rio Grande Cutthroat is not an endangered species, but is a popular sport species among fishermen. . . . It is both sad and ironic that it was Aldo Leopold who convinced the Forest Service to protect the Gila as our nation's first wilderness in the 1930's-now, it is in danger of being converted to a fish farm for recreationists."

I see a different irony: It was Aldo Leopold who wrote the following in his essay Wilderness for Wildlife: "If education really educates, there will, in time, be more and more citizens who understand that relics of the old West add meaning and value to the new."

Acid rain is not the main threat to brook trout in New York State's Adirondacks. In fact, compared with alien fish introductions, it's unimportant. Perch, sunfish, bass, pike, bullheads, etc. got flung around so long ago that there's not even a record of what used to be trout water; and these aliens-particularly bass-are still being flung around. Thus defiled ponds and lakes in this country simply cannot sustain wild brook trout.

But since the early 1970's the New York Department of Environmental Conservation (DEC) has been guided by the State Land Master Plan. This far-sighted document prescribes various managements for various land classifications. For each wilderness area it requires the department to formulate a plan and, for that plan, to inventory all plants, fish and animals. While it forbids permanent structures in wilderness, it provides a few exceptions essential to wilderness management-such as fish-barrier dams. It forbids helicopters and other motorized vehicles in wilderness except in "extraordinary conditions"-such as rescuing people from disaster or brook trout from alien fish. It establishes that the single most important thing managers must do for wilderness is to preserve and restore native flora and fauna.

Following the mandates of the State Land Master Plan, DEC fish managers have identified what they call "heritage trout"-pure strains of brook trout that evolved in the Adirondacks and that, apparently, have never been contaminated by hatchery genes. Mostly, DEC has been working with three of these strains, named for the lakes from which they were collected in the nick of time-Windfall (where they've since been lost to alien fish), Little Tupper (where they're in the process of being lost to alien fish), and Horn Lake (where they've been lost to acid rain). In the last 15 years managers have restored heritage trout to about 50 remote ponds. Domestic brook trout live about three years, but heritage trout live six or seven; so they grow lots bigger. Four-pounders are now common. "When I was in the office our single most requested piece of literature was the reclaimed pond list," says Larry Strait, DEC's regional fish manager who retired in 2001. "That was no accident."

The Adirondack Council, another environmental group that does great work and for which I have raised lots of money, exists, in its words, to "sustain the natural and human communities of the region." Log onto its Web site, and you'll get hollered at by a loon. Loons are a symbol of wilderness,

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but the wild brook trout loons depend on aren't-at least not to the council which doesn't see or hear them. Nor do wild brook trout count as part of the "natural community" the council is pledged to defend. The council rails against helicopter and motorboat use by DEC trout managers and says it wants them "to follow the same wilderness rules as the public." It says it finds the practice of reclaiming ponds with rotenone "offensive" and wants it banned.

When I interviewed communications director, John Sheehan, he repeated all the standard wives' tales: For example: "There appears to be a relationship between rotenone use and Parkinson's disease." And: "Rotenone essentially kills everything that breathes with gills." It was clear that the council hadn't bothered to learn the first thing about fish restoration or wild brook trout. "The trout they're putting back generally exist in another place or several other places or are the same acid-resistant strain of Little Tupper trout that they've been stocking," Sheehan declared.

But Little Tupper trout are natives, not the supposedly acid-resistant Canadian-domestic hybrids DEC used to play around with. Heritage trout recovery is all about sport, he explained: "The problem we've had is that rotenone is generally used to create sporting opportunities, not as a means of preserving specific species necessarily. Generally we're not thrilled about killing off entire ponds and replacing them with monocultures." Yet Adirondack brook trout evolved in monocultures; in fact, they can't survive without them.

Armed with all this misinformation, the council urged DEC to adopt a rule that forbids managers to fly or drive into wilderness except in "off-peak seasons"-i.e. before Memorial Day and after Labor Day. DEC-increasingly staffed by young enviros who don't see, handle or understand fish and who fear all pesticides-complied in November 2003.

The only time you can check to see if ponds are thermally suited for brook trout is when they're stratified, and they're stratified only in summer. You can't reclaim ponds when everything is iced up. And because brook trout are fall spawners and rotenone doesn't kill trout eggs, you can't eliminate domestic and introgressed fish much after Labor Day. So the new rule effectively ends heritage trout recovery in wilderness.

"The department has made it impossible for resource managers to engage in meaningful debate," says Strait. "Trout Unlimited [pushing heroically and lonesomely for virtually every native trout restoration project across America] was denied the opportunity for a public hearing, and their comments were given short shrift. The Adirondack Council has rejected science. That's a shame because they could be great allies if they'd look at what we were able to accomplish over the last 15 years."

In Montana's upper Missouri River system, where westslope cutthroats have been extirpated from all but two percent of their historic range, the state Department of Fish, Wildlife and Parks is using a total of 20 gallons of antimycin and 10 gallons of rotenone to make a westslope sanctuary from 77 miles of upper Cherry Creek, now infested with brook trout and introgressed rainbows and Yellowstone cutts. (See "Angler of the Year, Ted Turner," January 2002.) You've heard the old saw that just one concerned environmentalist can "make a difference." Well, it's true but not always good. For four years the Cherry Creek project, the most ambitious riverine piscicide treatment ever attempted in North America, was placed on hold purely because of a lay person's fantasies about antimycin, rotenone and even the potassium permanganate with which they are neutralized at downstream stations. William Fairhurst of Three Forks, Montana sued in state court on grounds that the department was "polluting" a public water supply. The utterly meritless action was finally dismissed, but while it was underway and while Fairhurst was threatening a federal suit the department's timid legal advisors made managers sit on their hands.

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The first phase-treatment of 105-acre Cherry Lake and about 11 miles of stream with 10 parts per billion antimycin-was completed with superb results in August 2003. "We had sentinel fish posted in net bags throughout each treatment site every day; and we got 100 percent mortality," reports project leader Pat Clancey. "After a second treatment next year, we'll seed this stretch with westslope eggs, and we'll stock catchable adults in Cherry Lake just for the recreational fishery."

But Fairhurst isn't finished. Now he's filed his federal suit on grounds that "the Federal Insecticide, Fungicide and Rodenticide Act requires the Environmental Protection Agency to prevent unreasonably adverse effects on the environment."

During the alleged pollution of upper Cherry Creek this past summer Clancey and his team observed the most sensitive invertebrate in the watershed, a species of caddis, happily scavenging poisoned trout.