



**M**AYBE IT SEEMED LIKE A GOOD IDEA at the time. After all, lake trout are a big, tasty sport fish. But the ones somebody illegally stocked in Yellowstone Lake ended up eating more than just anglers' lures. The voracious predators, close cousins to bull trout, now threaten to "bring the lake's pure-strain Yellowstone cutthroat trout to its knees," says Todd Koel.

Supervisory fisheries biologist for Yellowstone National Park, Koel says recent survey nets show the lowest level of cutthroat trout since surveys began in 1969. And the problem isn't just one for cutthroat anglers. Bald eagles and grizzly bears are among dozens of species that rely on spawning cutthroats as a vital spring food source. Lake trout, on the other hand, spawn in the fall, in deep water.

"Park studies have shown that 42 terrestrial and avian species use cutthroats," says Koel. "[Lake trout] are definitely disrupting the ecology of the lake."

Illegal introductions are toppling fisheries and damaging ecosystems throughout the United States. And Montana is no exception.

FWP has documented more than 400 illegal introductions in state waters. Northern pike are the most prevalent sport fish illegally stocked in Montana's lakes, rivers, and streams. But yellow perch are a close second. Biologists know of 60 waters in the northwest region where the panfish species has been dumped into lakes by what fisheries professionals call "bucket biologists."

The unauthorized plantings are carried out by anglers who want new fish in local waters. For years, coldwater species have ruled Montana's fishing world, but recently many anglers have been coveting Midwestern fish, warmwater species such as the walleye, northern pike, and yellow perch. Not only are these considered among the tastiest of fish, but warmwater species are often readily available to ice anglers, who are reeling in the illegal transplants in record numbers.

The new action comes with a hefty price, however. Often with each new introduction of pike, perch, and their bucket-born cousins comes a crash in the existing trout or salmon population. What's more, illegal introductions can ruin entire ecosystems and end up costing FWP—or, more precisely, Montana anglers—mas-



# OUTLAW INTRODUCTIONS

WHEN ANGLERS ILLEGALLY TAKE FISH MANAGEMENT INTO THEIR OWN HANDS, THE RESULTS CAN BE DISASTROUS

BY DAVID MADISON

sive sums that could otherwise be spent to improve fishing in other waters.

One of the most notorious mistakes made by a bucket biologist happened at Lake Mary Ronan. This once-exquisite kokanee salmon fishery near Proctor was the scene of an illegal yellow perch stocking in the spring of 1992. Two boys fishing nearby watched as a man drove out onto a dike by the lake's outlet, emptied two buckets into the water, and drove away.

The boys rushed to the site and saw yellow perch swimming near the surface. They reported the incident to FWP, which netted 33 perch and later caught the man responsible for the illegal activity.

Over the next few years, the perch population exploded before stunting out into a giant school of mainly 4- to 6-inch-long fish with an occasional "lunker" of 10 inches or more. In the meantime, the nationally renowned kokanee population has plummeted, dropping 70 percent from before the perch showed up.

The repercussions of one illegal introduction can extend statewide. FWP depends on Lake Mary Ronan to supply many of the

salmon eggs it needs for raising fry and restocking fisheries around Montana. In a good year, FWP expects to collect 2.6 million salmon eggs from the lake. In 2002, it gathered just 1.4 million, meaning that this year many salmon plants had to be reduced or cut.

On a cold January afternoon, the snow-dusted surface of Lake Mary Ronan is dotted by ice fishermen. Maybe 20 anglers have spread themselves out around the lake. Only half are fishing for salmon because the catch rates have dropped so much. The rest are pulling in perch at a steady pace. Many argue the perch are a welcome addition to the lake. Using a wax worm, Paul Brash of Columbia Falls is having a so-so day on the ice. The perch are biting, but not at the rapid-fire pace that has made Brash a huge fan of the species.

"We catch perch consistently," says Brash, who, like many regulars at Lake Mary Ronan, insists the panfish species were in the lake before the notorious dumping incident in 1992—a fact FWP counters with its own meticulous fish population survey records.

"The salmon are plants, and I gotta guess the rainbow are plants,"

continues Brash. "What's the problem with the perch?"

The problem, say FWP biologists, is that yellow perch are capable of becoming a virtual mono-species. They can adapt to many types of habitat, and their ability to rapidly reproduce allows them to overwhelm competing game fish. The department has recorded 60 places where perch exist in the northwest region. In some 55 of those fisheries, perch have stunted out at 6 to 8 inches—too small to be worth filleting for many anglers. And in many of the lakes, perch have caused a decline in the numbers of other sport fish. Jim Vashro, FWP northwest region fisheries supervisor, fears perch infestations more than any other illegally dumped fish species because of the way they can trash other fish populations.

"Again and again we see a net loss to the fishery," says Vashro. "The introduced perch bombs out and takes the existing species with it."

And the problem isn't limited to perch. Northern pike illegally dumped into lakes and reservoirs throughout Montana have damaged other game fish populations without producing keeper-sized pike. This past spring, FWP biologists removed nearly 500 northern pike from Pishkun Reservoir near Choteau. For decades the reservoir's pike—which average just 18 inches long—have hampered attempts to create a trophy trout or salmon fishery.



ERIC ENGBRETSON

**STAMP-SIZED FILLETS:** Though panfish like these bluegills taste great and bite readily, they often overrun a lake and stunt out at a size too small for anglers to keep. FWP biologists only stock panfish in lakes where they are sure the species will grow well and not affect existing fisheries.

If ruining existing sport fisheries weren't enough, illegal stocking can also damage lake environments and threaten protected fish species. For example, carp introduced to shallow lakes stir up bottom sediment, blocking sunlight from reaching aquatic plants eaten by waterfowl and other wildlife. In Milltown Reservoir, near Missoula, northern pike have been devouring federally listed bull trout.

Then there's the issue of fairness. Those who intentionally dump new fish into a lake are thumbing their noses at anglers already happy with the current fishery.

"How would you like it if some night at your favorite pond or lake someone came in and put a bunch of new fish that in time would wreck your fishing?" says Vashro.

Another strike against illegal introductions is the high cost of trying to remove the unwanted newcomers from an established

fishery. In its efforts to foster more stable, healthy fisheries, FWP has often been forced to remove all the fish in a lake or pond by treating the water with a fish toxicant called rotenone. As part of this "fishery rehabilitation," the agency then restocks the water with coldwater species. At places like Rogers Lake and Lion Lake—both in the northwestern region—rotenone treatments and restockings have reestablished popular coldwater fisheries. Instead of stunting out as the perch and pike do, the trout, grayling, and salmon maintain a diverse and sustainable population of keeper-sized fish.

Rehabbing can work, but it's expensive, running from \$10,000 to \$15,000 for smaller lakes and \$50,000 or more for larger ones. Lakes like Mary Ronan are so big the agency can't afford to rehab them.

Who pays for the costly treatments? Anglers, says Chris Hunter, FWP Fisheries Division administrator. Hunter adds that the cost of rehabilitations forces FWP to postpone or cancel projects to improve other fisheries or introduce new fish legally into other waters.

"The time and money we spend trying to repair these damaged fisheries would otherwise be spent on other fish management work, such as improving habitat or stocking fish," he explains. "Every time someone dumps fish in a lake, it's everyone else who buys a license that has to pay to have those fish removed."

## Ruining fisheries across the United States:

# YELLOWSTONE'S LAKE TROUT

The cost to remove lake trout from Yellowstone Lake in Yellowstone National Park eventually will run into the millions of dollars.

That's according to Todd Koel, park supervisory fisheries biologist, who says the park now spends \$300,000 per year for two boats with crews to drop and lift 10 miles of gill nets across the lake's bottom each day. Since the effort began in 1994, the nets have hauled in some 56,000 pounds of the illegally introduced trout.

The park also allows unlimited harvest of lake trout by anglers, though that catch is just a fraction of what the nets haul in.

Lake trout removal is necessary to prevent the species from taking over the lake, which Koel says is one of the country's last strongholds of genetically pure cutthroats.

"People need to understand the cost of an illegal act like this," says Koel. "The money we spend on netting lake trout should be going to improve the park. These are taxpayer dollars going to something that didn't need to happen."



JEFF HENRY/ROCHEJAUNE PICTURES

**GILLED GLUTTONS:** Voracious lake trout, illegally stocked in Yellowstone Lake, have eaten so many native cutthroat trout that the native's population has dropped to record lows.



WILLIAM H. MULLINS

**FROZEN FISH:** Another appeal of warmwater species, such as yellow perch, is their readiness to bite in winter. Yet when illegally stocked, this walleye cousin often stunt out at just 6 inches long and ruin the existing fishery, say biologists.

Yet another problem with outlaw introductions is their damage to local economies. Perch in Lake Mary Ronan are putting at risk several million dollars that kokanee salmon anglers spend in the area each year. After rehabbing, fishing pressure at Rogers and Lion Lakes grew from near zero use to over 3,000 angler days of fishing per year. “Perch and pike threaten the more than \$250,000 per lake now going to that local economy each year,” Vashro says.

### SOME PIKE DO FLOURISH

“It was like a freight train passing in front of your headlights,” says spear fisherman Shayne Hatfield, recalling what a giant northern pike looks like through a skin-diving mask. Spear in hand, Hatfield marveled at the pike years ago while he was submerged in Hanson-Doyle Lake, a grassy pothole outside of Whitefish.

What Hatfield saw is a fact fisheries biologists concede, that some illegally stocked pike grow large, like the 36.5-pounder—almost a state record—that was pulled

*Freelance writer David Madison lives in Whitefish.*

from a Flathead River slough in 1999.

There’s also no denying that many anglers love the taste of warmwater fish. Just ask angler Burt Vasquez, whose eyes settle into a dreamy stare when he talks about having pike for dinner.

“I love to eat ’em,” says Vasquez, who fishes McWennegar Slough near Kalispell.

Brash, the perch devotee, says the same thing about his favorite fish. After filleting a bucketful pulled from Lake Mary Ronan, he breads and deep-fries the succulent white meat for dinner. Then later in the evening, he’ll go to the fridge and nibble on the leftover, bite-sized fillets.

“I start eating those things and I can’t quit,” Brash says.

Another reason bucket stocking can be a hard habit for anglers to kick is that it was once official state policy. Dumping fish here and there to improve fishing is what Montana and other states did for decades.

“The old fish management was a Johnny Appleseed approach, where you just throw fish around and see what happens,” says Vashro.

In many cases, that worked fine. Many

sunfish, bass, crappie, perch, and walleye fisheries throughout the state originally came from official state stockings. Same with Montana’s nationally famous rainbow and brown trout fisheries. And in certain scenarios, the well-managed introduction of warmwater species to trout fisheries can actually benefit existing game fish. For instance, tiger muskies mixed into a population of rainbow trout and white suckers will often eat only the suckers, allowing the rainbow population to flourish.

But new FWP introductions haven’t always gone as planned. Mysis shrimp introduced to Swan and Whitefish Lakes in 1981 drifted into Flathead Lake and contributed to the collapse of the kokanee salmon fishery there in the late 1980s. And many other official stockings of bass, panfish, and other nonnatives have been flops.

Today, biologists plant fish under strict biological guidelines. No legal introduction is made without a complete assessment of how the stocking could affect the lake environment.

Just as biologists now know better, so do anglers. It’s no secret that unauthorized fish



JAN FINGER/REDPINE

**HUNGRY NEWCOMER:** Superb sport fish known for their delectable white meat, walleyes can quickly eat up existing forage fish when dumped in some waters. The predators then turn their attention to rainbow trout and other existing sport fish species.

stocking is illegal. In fact, so serious do state lawmakers consider the offense that the 1997 Montana legislature increased the fine to \$5,000 and tacked on the potential for one month's jail time and the loss of fishing privileges.

### OUTLAW STOCKING CONTINUES

The steep penalties notwithstanding, anglers' affection for illegally planted fish is clearly on the rise. At Bootjack Lake near Whitefish, FWP has seen repeat infestations of pumpkinseeds. Vashro first discovered the sunfish there in 1995 while fly-fishing from a float tube. Earlier in the year, he had noticed less-than-usual insect life at the lake. After catching the pumpkinseed, he immediately suspected the sunfish were eating into the trout's food supply—a hunch that was bolstered later that day when he finally landed a trout. The skinny rainbow looked nothing like the chunky trout that had previously made Bootjack Lake popular.

The trophy trout water was treated in 1996 to get rid of the illegally planted sunfish. A trout population was successfully reestablished, but in 2002, after five years of not appearing in ongoing FWP fish surveys, the pumpkinseeds reappeared.

"That tells us somebody

went to work with a bucket," says Vashro.

Why bucket biologists ignore the obvious pattern of their illegal handiwork remains a puzzle to Vashro. At Carpenter Lake near Eureka, bluegills suddenly appeared in 1984. By the early 1990s, the

average fish had shrunk to the size of a playing card and were removed at a cost of \$80,000. Subsequently, the lake's use greatly increased as anglers flocked to the lake to fish for good-sized trout.

But now, just as in Bootjack Lake, the illegally planted species is back. Soon, predicts Vashro, Carpenter Lake will once again be overrun by stunted bluegills. "For some reason, bucket biologists think history won't repeat itself," he says.

Though the northwest has documented the most unauthorized fish introductions, the problem isn't limited to that region. Vashro ticks off a list of lakes across the state where illegal stocking has damaged existing fisheries, mostly for trout.

"Buffalo Wallow Reservoir near Lewistown, Ross Reservoir in Blaine County, Gartside Reservoir near Sidney—the list goes on and on," he says, "and the expense goes on and on."

Vashro's biggest concern now is the rapidly growing popularity of walleyes and black crappies in northwestern Montana. So far, the FWP Commission has not

authorized walleye stocking west of the Continental Divide for fear the warmwater species will compete with—and consume—bull trout and westslope cutthroat trout. But the demand for the nonnative species continues to grow.

The fishing organization Walleyes Unlimited of Montana is officially "dead-set against bucket biology," says Frank Danner of Kalispell, an official with WUM. Danner says the group, which has established a chapter in the Flathead area, prefers to work with FWP directly on trying to find ways to get walleyes into the region legally. "We want to be upfront and proud about it," he says. "We don't want to go sneaking around."

Still, however, somebody is sneaking walleyes into state waters. Recently, FWP fisheries crews have discovered the glassy-eyed species in Noxon Reservoir, an impoundment of the Clark Fork River near the Idaho border that's home to struggling populations of native cutthroat and bull trout. And FWP has found illegal walleye plants in seven other waters in western Montana, including Lake Five near Glacier National Park.

Meanwhile, the department has also noted with concern the appearance of black crappies in Blanchard Lake, between Kalispell and Whitefish. FWP is now considering two remedies for the illegal fish in that water and Lake Five. The most expensive option is to treat and then restock the lakes. The other alternative is to close both waters to fishing.

"I'm watching both lakes very carefully," says Vashro, who worries the walleyes and black crappies will travel the same route as illegally stocked northern pike, perch, pumpkinseeds, black bullheads, bluegills, and bass. Each time one of these species established a small population in one lake or pond, it was then moved by buckets to nearby waters. Illegal introductions breed more illegal introductions, and they can quickly disrupt the fishing in lakes and ponds across Montana

"In my opinion, this is an even bigger problem than whirling disease, which is only specific to trout," says Vashro. "The effects of illegal intros are permanent, can be just as devastating, and can strike any fishery in the state." 🐾

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**JIM VASHRO**

*FWP Northwest Region Fisheries Manager*