



COMMON CARP

thousand, but in an unhappy twist, goldfish have become the new carp. In 1997, the Fishway barred just 22 oversized goldies. Last year, more than 2,500 were prevented entry. But because the submerged grates were built to exclude carp not goldfish, small goldfish continue to slip into Cootes Paradise, producing more young and filling the niche the carp have vacated.

And once goldfish settle in, they are hard to evict. For more than a decade, the Hamilton Conservation Authority (HCA) has fought an on-and-off battle to oust goldfish from a small pond high on the Niagara Escarpment. In an effort to protect habitat for the endangered Jefferson salamander, the agency has trapped, netted, electro-fished and even poisoned the predatory fish with rotenone, a plant-based toxin. “We’ve removed thousands of goldfish, but some are still present,” says HCA aquatic ecologist Colin Oaks. “The best way to get rid of them is to prevent them from getting in in the first place.”

Pet owners who “free” their goldfish probably do not think of themselves as law-breakers, but they ought to take a look at the federal Fisheries Act. For first offenders, the potential maximum fine for dumping a goldfish (or any other fish) into waters “where it is not indigenous” is a cool \$100,000.

Even if that punishment is rarely applied, it underlines the seriousness of messing with our lakes. “I just don’t think we’re getting the message out: this practice is harmful to Canada’s native fish,” Boston says. She argues for more education, including signs discouraging fish dumping on urban waterfronts and coaching for new fish owners.

Goldfish breeder Andrew Bridgemohan agrees. “Most goldfish hobbyists don’t have

enough education on the harm their fish can do in the wild.” On his farm in Breslau, near Kitchener, Bridgemohan raises fancy goldfish—retailing at up to \$500—for what he calls “the BMW crowd.” He also imports thousands of small fish from Asia that are destined to become lower-cost stockers in ponds and nursery stores. When it comes to goldfish marketed as 59-cent pet store specials, it is easy to imagine at least some of these creatures as impulse purchases. And,



Border control: RBG’s Fishway helps prevent invasive goldfish from entering Cootes Paradise.

when the reality of fish feeding and bowl cleaning settles in, some of these former pets are exiled to local creeks. To prevent that, the Canadian Association of Aquarium Clubs, along with governments and other partners, has launched a campaign

Winning approach: Efforts to control invasive carp have been largely successful.

against fish dumping and flushing. Owners are urged to offer unwanted goldfish to other hobbyists, schools or pet stores, or list them as giveaways online. The association also runs a fish rescue service to “rehome” the adoptees.

Could the goldfish problem get worse? Yes. Goldfish have a cousin, *Carassius gibelio*—Prussian carp. It looks so much like a goldfish, it may have entered western Canada in a shipment of fish destined to be pets or even food. Prussian carp has the rare capacity to reproduce without the need for its own species’ sperm, says Jonathan Ruppert, an adjunct professor in the Department of Ecology and Evolutionary Biology at the University of Toronto. Females clone themselves by hijacking the sperm of other closely related species in a process called gynogenesis. “They reproduce at such high rates, I think of it like a swarm,” Ruppert says.

The carp have expanded eight-fold in their southern Alberta range during the past 15 years and are pushing eastward through the Saskatchewan River system. Halas says the fish are well equipped for cold weather, thanks to their northern Eurasian ancestry, and could cross-breed with goldfish, making the offspring potentially more vigorous. “There needs to be more control,” Halas argues. “We need to invest more resources in checking what kinds of fish are getting shipped to us.”

This is a lot of bad news to attribute to the family’s quietest pet. But stopping the influx of invaders and discarded pets is only part of the solution. The long-term fix is greater care for Ontario’s waters so they are less like goldfish bowls and more like habitat-rich havens for native species. Given cleaner water, native predators including hungry northern pike, lurking bass and swamp-loving bowfin will gobble stray goldfish.

Wilder waterways benefit everyone, including the kids fishing at Wheatley Provincial Park. To raise a new generation of naturalists and water protectors, more free-range kids are needed, in more wild spaces, with fewer free-ranging invasive species—including Bubbles. 🐟

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