



The River Redhorse

H O R S E O F A D I F F E R E N T C O L O R



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Every weekday at five, office workers file out of buildings, leaving behind the grinding wheels of commerce. But business doesn't stop. Custodial staff then start their work day, playing no less an integral part to a successful workplace.

The river redhorse is part of the maintenance crew in Alabama waters. A member of the sucker family, this fish plays an important part in the ecosystem. In keeping with its seemingly timid and industrious nature, the river redhorse sucker is inclined to a modest, unassuming lifestyle. Even in the clearest of waters, it goes sight unseen for its olive-green back and sides blend well with the bottom terrain. A river redhorse sucker will surprise you though, showing itself in a bronze flash as it rolls sideways while feeding in the runs and pools. Close up, its beauty astounds: "I never skin a sucker without admiring the prismatic beauty of his scales," wrote O. Henry, in **A Tempered Wind**.



Indicator of Water Quality

This river dweller makes a living gleaning the river bottoms, perusing over gravels and rubble, over slow-water areas of mud and leaf litter, searching for its favored fare. With a vacuum cleaner-like mouth, handily placed at the bottom of its head, the river redhorse sucker uses its fleshy lips highly charged with nerve endings to feel for food.

You won't find teeth in the river redhorse sucker's mouth. But you will find them in its throat, opposite its gills. These teeth are large and molar-like, and do what molars do: crush. Fish don't necessarily chew their food, but in the case of the river redhorse sucker, its "molars" break open the shells of tiny mussels and snails so it can digest the meat. This sucker also takes hard-shelled aquatic insect larvae on the river bottoms, primarily mayflies and caddisflies, as well as aquatic beetles. The river redhorse sucker also garners a fair amount of nutrition

as it passes leaf litter and other organic matter through its gullet. But it's mollusks that get top billing on the menu, says Jeff Powell, U.S. Fish and Wildlife Service biologist stationed at the Daphne Ecological Services Office.

"They really like snails," says Powell. "And luckily, the exotic Asian clam is another item of choice. Pollution that affects mollusks first, next affects river redhorse; finding river redhorse in a stream is an indicator of good water quality."

Horse of a Different Color

With a little bit of imagination, you can see some resemblance of the fish's head to that of a horse, chunky and down-turned. In the spring when the fish turn their energies to spawning, the fins turn a bril-

liant bright red. Spawning occurs in April and May, and the adults make runs up stream and into feeder streams, moving mostly at night to find the right habitat – rocky riffles in shallow water.

Besides a change in coloration, the river redhorse develops pearl organs, also called tubercles, on its skin. These organs give



Above: The down-turned head of the river redhorse resembles that of a horse. Right: Studies are being conducted at the Claiborne Dam to determine what flows are needed to get fish over the dam naturally.



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the skin a coarse, raspy texture needed for spawning. The males move onto the riffles and excavate gravels with their tails in a sweeping motion, or plow through the gravels with their heads, all in an effort to free up silt so oxygen-rich waters percolate through the gravels where eggs incubate.

Facing into the current, males lie in wait for gravid females. When a female approaches, the male shows his worthiness, darting back and forth in a sweeping courtship dance. Ripe females are attended in the spawning act by one, and sometimes two males. The pearl organs allow them to cling together, to maintain a station over the excavation while the eggs, upwards of 50,000 in number, are simultaneously fertilized and dropped among the clean gravels.

The eggs and young are left without parental care. Swarms of young river redhorse sucker take temporary station

in slow-moving shallows of their natal streams, providing food for predatory fishes like black bass and sunfish. Herons, too, eat the smaller fish. Those lucky enough to move into bigger waters where their parents came from could reach two feet long and eight pounds at the end of their 12-year life span.

Redhorse Populations

Spring spawning runs bring people to the water to harvest river redhorse sucker. Gigging is the most popular method. With the spawning act occurring mostly at night on the shoals, it's then that they are most vulnerable to gigging.

But on spawning runs they run head-long into locks and dams, concrete edifices that block their access to vital habitats needed for spawning, or for respite from seasonal extremes. The fish is intolerant of silt. Silty streams have caused the river

redhorse sucker to decline, as have dams by fragmenting the habitats. The fish's need for clean spawning gravels and a reliance on mollusks in its diet are its bane. Pollution and siltation from agriculture and urbanization can clog spawning beds. Filter-feeding mussels – so sensitive to side effects of human activity – will disappear

and river redhorse sucker will follow. Today, this fish with the prismatic scales and a horse-like head is one of the least common of 65 suckers that occur in North America.

The U.S. Fish and Wildlife Service's Fish Passage Program is helping rectify potential problems. The Alabama Department of Conservation and Natural Resources, the Geological Survey of Alabama, along with U.S. Fish and Wildlife Service partnered up to do what's first necessary – determine what flows are needed to get fish, like the river redhorse sucker, over the dam naturally. Several years of study on what fish need at Claiborne Dam, the lower-most dam on the Alabama River, is proving valuable. Scientists will be better armed to make flow recommendations for the benefit of fish – and fishing. 