The redband trout is Spokane River's signature native fish

by Jim Bellatty, Water Quality Program, Eastern Regional Office

The Columbia River redband trout (*Oncorhynchus mykiss gairdnerii*) is a subspecies of rainbow trout found in well-defined geographical distributions throughout Idaho, Montana and Washington, including the Spokane River basin.

The redband trout has larger, more rounded spots than the rainbow trout and has orange-red color around the lateral line with very distinct white tips on the anal, dorsal, and pectoral fins. They exceed 10 inches at maturity and thrive in clean, cool, relatively small and low-sloped streams such as the Spokane River.

As with other trout, they feed on insects, crustaceans and forage fish and they spawn late April through mid-June depending on water temperatures and levels. The fry (young fish) typically emerge in mid-July from the gravel in which the eggs were laid.

The Washington Department of Fish and Wildlife (WDFW) conducted a survey in October 2007 of the redband trout in Spokane River, and they found some startling results. In the 1980s and 1990s, fisheries managers estimated redband trout populations in the upper Spokane River between 2,000 and 19,000 fish. The 2008 survey found fewer than 1,200 fish.

**Barometer of aquatic health**

In one critical reach of the upper Spokane River, they found 61 redband trout per kilometer. Historically, this reach supported 222 redband trout per kilometer. This 75 percent reduction in the redband trout population over 30 years is troubling, especially knowing that redband trout are considered to be a priority, sentinel species by WDFW and a barometer of aquatic health.

Scientists are still sorting out the reasons for the decline in the redband trout population, but they point to competing demands on the river system. Those include recreational boating, withdrawals from the Spokane Valley/Rathdrum Prairie aquifer for development, wastewater discharges into the river and hydroelectric dams. Poaching and predation are also factors. Some anglers aren't following the catch-and-release rules, despite two decades of catch-and-release regulations.

In addition, smallmouth bass appear to be feasting on redband trout. The non-native bass were illegally introduced to Lake Coeur d'Alene in Idaho. They spread into the river, where the redband trout became part of their diet.

Despite these challenges, there is hope for the future of redband trout based on increased outreach and education efforts by organizations such as the Spokane Falls Trout Unlimited, the Spokane River Redband Coalition, the Spokane Riverkeeper, Avista Corp., WDFW and others. Signs along the river have heightened the awareness about these fish in both the community and among fishermen.

Ecology also plays an important role in the protection and the sustainability of redband trout with our regulatory responsibilities including hydroelectric dam operations, toxic site cleanups, spill response, pollution prevention, water quality standards, instream flows, shoreline protection, total maximum daily load plans (TMDLs), point source discharge permitting, nonpoint source pollution control, stormwater management, and more.

The wild redband trout is a signature native fish for the Spokane River and they deserve our continued attention and protection.