

Walleye in Canyon Ferry Reservoir

1950s - 1980s

Montana Fish, Wildlife & Parks has systematically sampled the Canyon Ferry fishery since the reservoir first filled in 1955. Historically no walleye were observed in these efforts, nor did MTFWP document a single walleye being caught by anglers. This all changed in 1989, however, when biologists sampled a single walleye in gill nets used to monitor the Canyon Ferry rainbow trout population.

1990s

In the early 1990s, MTFWP initiated the development of a five-year fisheries management plan for Canyon Ferry. The primary issues identified in this planning process were concerns about the declining rainbow trout fishery and a growing interest in establishing walleye in Canyon Ferry. This walleye issue was not a recent one. Certain anglers had been advocating such an introduction since the early 1980s. MTFWP took comprehensive measures to address this: we hosted a public workshop investigating walleye-trout interactions in other western states; an environmental assessment was completed specifically evaluating the potential impacts of walleye on the existing Canyon Ferry and adjacent fisheries; and an extensive public survey queried angler's opinions and preferences. Through this public process it was concluded that habitat conditions in Canyon Ferry were highly favorable for the development of a self-sustaining walleye population. In fact, it was likely they would do too well. This caused great concern because if this top predator fish became too abundant it was possible they could negatively affect existing fisheries in the entire reservoir complex. Additionally, the majority (77 percent) of the survey respondents supported maintaining the existing rainbow trout and yellow perch fishery in Canyon Ferry; they generally opposed a walleye introduction, particularly if it were to pose a high risk to the existing fishery. The 1993-1998 plan was presented to the MTFWP Commission recommending that walleye not be introduced into the reservoir and that management emphasis be directed at enhancing the existing rainbow trout and yellow perch fisheries. It was unanimously adopted by the Commission.

Ironically, at the very time MTFWP was addressing a potential walleye introduction in Canyon Ferry a population was quietly developing in the reservoir. Biologists sampled a few more individuals while completing standardized netting in the early 1990s. In 1993, gill nets set specifically for walleye turned up several, all less than four years-old. It was evident a walleye population was developing in Canyon Ferry.

Because of the risks identified in the management planning process, there was an aggressive mandate in the plan addressing the establishment of illegally introduced species: A.....MTFWP will take immediate action to determine the status of the population and evaluate the possible consequences to existing fisheries.....[and] as determined necessary....utilize removal methods or reservoir level manipulations to minimize impacts of illegally introduced fish species on resident populations.≡

The Department collaborated with the Montana Cooperative Fishery Research Unit at Montana State University in Bozeman to implement a study to determine the status of walleye in Canyon Ferry. Research completed from 1994 through 1996 showed that walleye were firmly established in Canyon Ferry; age and growth data indicate they had been reproducing in the reservoir since at least 1985. While it was uncommon to sample walleye when the study was initiated in 1994, by 1996 it was routine. The population was expanding quickly. Recent netting surveys demonstrate that the population is now dominated by two very strong year-classes of walleye produced in 1996 and 1997. Net catch rates of walleye in Canyon Ferry now exceed those observed in other established walleye fisheries in MontanaXthis just 10-years since the first one was sampled in the reservoir.

Managers immediately began working on a new plan when the first Canyon Ferry management plan expired at the end of 1998. This new plan includes Hauser and Holter reservoirs and will address the potential implications of the developing Canyon Ferry walleye population on these downstream fisheries. Because walleye are now firmly established throughout the system, the central objective of this new plan is to maintain multi-species fisheries (including walleye) in all three reservoirs. To accomplish this, walleye densities will need to be maintained at levels low enough to be compatible with the other fisheries. Biologists hope that liberalized harvest limits will be effective in slowing the expansion of this population. However, understanding that the current Canyon Ferry walleye population was produced by relatively few adults, the reproductive potential of this population may not be realized until year 2001 when the females from the very strong 1996 year-class spawn for the first time.