

COLUMBIA RIVER CHINOOK SALMON AND STEELHEAD TRANSPORT STUDIES, 2008

Douglas M. Marsh

Fish Ecology Division
Northwest Fisheries Science Center
National Marine Fisheries Service
2725 Montlake Boulevard East
Seattle, Washington 98112-2097
Doug.Marsh@noaa.gov

Formatted: Underline

ABSTRACT

In 2008, we completed research to evaluate the potential of transportation from McNary Dam to increase adult returns of anadromous salmonids.

During the 2005 study year, collected fish at McNary Dam were separated into transport and full-flume bypass groups on alternating days. The study design was to compare the relative adult returns from these two PIT-tagged groups to adult returns of the PIT-tagged fish passing McNary Dam through spill and turbines. Fish returned to the river after having been routed across the separator were not used in any comparisons.

From our PIT-tagged hatchery steelhead releases, we detected a total of 379 transported adults (SAR of 2.14), 485 full-flume bypassed adults (SAR of 1.98), and 2,888 non-detected adults (SAR of 1.95). These SARs resulted in a transport-to-non-detected ratio of 1.09 (95% CI 0.95, 1.26), a bypassed-to-non-detected ratio of 1.02 (95% CI 0.88, 1.16), and a transport-to-bypass ratio of 1.08 (95% CI 0.83, 1.39).