

Estimated Smolt-to-Adult Survival Rates for Untagged Populations of Chinook Salmon and Steelhead from the Snake River Compared to Estimates From PIT-Tag

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In a 2005 Technical Memorandum (“Effects of the Federal Columbia River Power System on Salmonid Populations”), NOAA Fisheries presented data that suggested SARs estimated from PIT-tagged wild Chinook salmon and steelhead do not represent the SAR for the unmarked run-at-large. We are in the process of updating and expanding those early analyses to encompass more migration years, improve our estimates of SARs for both PIT-tagged and unmarked populations, and extend inference to hatchery stocks in the Snake River. Current analyses indicate that the SAR for unmarked wild Chinook may be as much as 50% higher than for their PIT-tagged counterparts (PIT-tag estimate only 65% of unmarked estimate) and that the difference may be even greater for wild steelhead. We will present completed analyses at the January workshop.