
Title:

Precocial Salmon on the Spawning Grounds

Authors:

Todd N. Pearsons, Brenda Ben James, and Christopher L. Johnson

Washington Department of Fish and Wildlife
201 N. Pearl Street

Ellensburg, WA 98926

(509) 925-4467, pearstnp@dfw.wa.gov

Summary of Presentation:

Some spring Chinook salmon complete their entire life in freshwater. We refer to these fish as precocials. We examined the hypothesis that the Cle Elum Supplementation and Research Hatchery alters the assemblage of spring chinook salmon that precocially mature in freshwater. We snorkeled and counted the number of precocials on the spawning grounds. The release of hatchery fish in the spring affected the abundance and age structure of precocials observed on redds the following fall. The hatchery only produced age 1+ precocials but the natural composition of precocials was generally higher for age 0+ than for age 1+. In the spawning areas, we observed more hatchery precocials per female taken for hatchery broodstock than naturally produced 1+ precocials per female spawner in the wild between 1999 and 2002. During 1999 and 2001, hatchery precocials per female taken for hatchery broodstock were higher than naturally produced age 0+ and 1+ precocials combined. We estimated relatively high numbers of precocials, during the spawning season, in areas where spawning is infrequent.