Title:
Lower Yakima River Predation Indexing: Northern Pikeminnow

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Summary of Presentation:
We conducted population estimates for northern pikeminnow *Ptychocheilus oregonensis* using mark recapture methodology during April, May and June in three sections of the Yakima River above Prosser Dam. However, we were only able to obtain valid population estimates for the Toppenish site (Rkm 145.6-153.4) and Granger site (Rkm 130-134.1). The abundance of northern pikeminnow >200 mm fork length/km in the Toppenish and Granger Section ranged from 97 to 291 fish/km and 280-394 fish/km respectively, from April to June. Most recaptured northern pikeminnow were recaptured in the same section that they were originally tagged, suggesting limited northern pikeminnow movement during the period of this study. The diagnostic bones analysis from the stomach samples of northern pikeminnow are still being processed. Therefore, salmonid consumption estimates could not be conducted at this time. We relied on the presence of either coded wire or PIT tag to identify hatchery origin spring chinook and coho salmon. Yearling salmon remains that were not accompanied with a coded wire or PIT tag were identified as unmarked yearling salmonids, and were likely a combination of hatchery and wild origin spring chinook and coho, since estimated fork length at time of ingestion, diagnostic bones, or presence of a coded wire or PIT tag were reliable methods of determining species or hatchery/wild origin. Development of a northern pikeminnow predation index in future years should continue to utilize weekly salmonid consumption estimates since this portion of the predation index is likely more viable throughout the outmigration period than predator abundance. Additional sites for 2003 will be "explored" and designated throughout the upper stratum to better represent consumption, as well as, understand life history of the northern pikeminnow.