

**Development of Small Stream PIT Tag Interrogation Units
for Imperiled Columbia River Basin Trout**

Gayle B. Zydlewski, USFWS, Abernathy Fish Technology Center, 1440 Abernathy
Creek Road, Longview, WA 98632; 360-425-6072

Joseph D. Zydlewski, USFWS, Columbia River Fisheries Program Office, 9317 NE Hwy
99, Vancouver, WA 98665; 360-696-7605

Phaedra Budy, USGS Utah Cooperative Fish and Wildlife Research Unit, Logan, UT
James Gasvoda, USFWS, Abernathy Fish Technology Center, 1440 Abernathy Creek
Road, Longview, WA 98632; 360-425-6072

Sub-basin management plans and ESA-related Biological Opinions have stressed the need to evaluate the abundance and distribution, population demographics, and local and migratory habitat use of imperiled populations of steelhead, cutthroat and bull trout. Traditional monitoring methods (redd counts, fixed traps, mark-recapture, and telemetry) are limited by high and low flows, labor costs, excessive handling, and insufficient precision and accuracy. This presentation will focus on currently installed small stream PIT tag interrogation units established throughout Columbia River Basin by the USFWS. The utility of these new methods for monitoring and evaluating seasonal movements; estimating survival and migration timing; apportioning populations by life history form, identifying micro-habitat use; and examining smolt to adult survival will be presented for steelhead, cutthroat, and bull trout. Installation, database management, and application of data for effective management will be discussed. Future installations and concerns will also be outlined.