

## **New PIT Tags / Collision Analysis / Approval Process**

Joseph Zydlewski  
U.S. Fish and Wildlife Service  
Columbia River Fisheries Program Office  
Habitat and Natural Production  
9317 Highway 99, Suite I  
Vancouver, WA 98665  
(360) 696 - 7605  
joe\_zydlewski@fws.gov

PIT interrogation systems over the last decade have benefited from an ongoing progression of tag improvements. Increased read range has been the most important of these efforts for applications and has enhanced efforts for detection both in bypass facilities as well as in small streams and other innovations. Increases in read range have been accomplished through simply using larger tags (e.g. 18mm, 23mm and 32mm tags), and through technological developments, which improves the “standard sized tag” (12mm) for the Columbia River drainage. Regardless of the means (either tag size or electronic improvements) increased read of tags increases the odds of “collisions” when two tags interfere with one another at a given antennae. This potential risk is clearly a function of the number of tags in a system and, while small, should be considered for main-stem studied using PIT tag detections to quantify life history traits. The PIT Tag Steering Committee plays a role in this evaluation process and the evaluation of other tag improvements such as that of encapsulation materials. Some proposed guidelines for evaluation are discussed and data from a preliminary evaluation are considered.