

How to acquire sum information on historical PIT-tagging efforts in the Columbia Basin

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Passive Integrated Transponder (PIT) tags have provided a useful tool for evaluating behavior of salmon in the Columbia River Basin (Basin) since the 1980s. Chelan County Public Utility District (CPUD) – owner and operator of Rocky Reach and Rock Island dams – has since released over one million PIT-tagged salmon, accounting for nearly a quarter of all fish tagged in the upper Basin. As with most organizations, many employees who were present for the onset of these activities 20 to 30 years ago have since relocated or retired. This loss of institutional knowledge presents a unique challenge to present-day researchers in understanding the history of PIT-tagging data available for context to current efforts. The PIT Tag Operations Center (PTOC) provides access to this information through the Annual Tagging Summaries, known as tag_sum files. As a new employee to CPUD's hatchery program monitoring and evaluation efforts, I will demonstrate how the use of tag_sum files can provide useful knowledge to historical PIT-tagging efforts by species, run, rear-type, migration year, release location, and organization. The further use of data identified in this process allows specific queries to better understand complex management issues, such as the migration distribution of sub-yearling Chinook, stray rates of adult steelhead, in-river survival of wild sockeye smolts, assessment of volitional release protocols, performance of multi-million dollar hatchery facilities, and potential effects of release locations, parental cross-types, and physical or operational changes at hydroelectric facilities.