**Spatial ecology of bull trout in a hydropower reservoir: implications for entrainment risk**

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To date, the majority of research on fish entrainment in hydropower reservoirs has focused on migrating smolts whereas comparatively little known about the risk of entrainment to adult fish. Given the risk of entrainment in a large hydropower reservoir is likely to fluctuate with seasonal changes in adult behaviour (e.g. spawning migrations), the first step to quantifying entrainment risk is to examine spatial ecology over multiple seasons. Here we present an ongoing study to examine the spatial ecology of adult bull trout (*Salvelinus confluentus*) in Kinbasket Reservoir, British Columbia. Kinbasket Reservoir is 210 kilometres long and was created after the completion of the Mica Dam, a large earth fill structure designed to impound the upper Columbia River to control flooding and generate hydroelectricity. In the spring of 2010 we deployed 43 acoustic telemetry receivers and tagged 187 bull trout to examine behaviour including depth and temperature use. Data were downloaded after monitoring fish movements for a year including under ice conditions. The results from this study provide the first year round assessment of bull trout spatial ecology in a large lentic system. This study also lays the ground work for a sophisticated entrainment risk assessment that will examine high-resolution movement in conjunction with hydrodynamics at the dam/forebay interface.