Title:
Non-target Taxa Monitoring

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Summary of Presentation:
Release of large numbers of hatchery origin salmon has the potential to negatively impact other taxa (non-target taxa, NTT). To determine changes in NTT status that could be related to hatchery smolt releases, we compared the abundance, size structure, and distribution of 16 non-target taxa before and 4 years after annual spring releases of about 1 million yearling smolts (coho and chinook) in the Yakima River. We compared any observed changes in status to predetermined containment objectives that were judged to reflect acceptable levels of impact. We utilized detection strategies that would balance our ability to detect changes and the chances of falsely associating a change with supplementation. With the exception of cutthroat trout and steelhead size, all of the changes we observed were within the containment objectives established for the project. Our analysis suggests that the depressed sizes of cutthroat trout and steelhead are not related to supplementation activities. For instance, tributary cutthroat trout and spring chinook salmon exhibited minimal overlap in distribution and had limited opportunity for interactions. In contrast, high overlap occurred between rainbow trout (an analog for steelhead) and spring chinook salmon in the upper Yakima River. However, we could not detect any differences in the sizes of rainbow trout between areas of high and low target taxa abundance. The interactions of NTT monitored with a predation index, including fall chinook salmon, Pacific lamprey, leopard dace, and sandroller, will no longer be evaluated.