

Juvenile Chinook Salmon Prey and Prey Resources in Lake Washington: Possible Consequences of Rearing in an Urban Lake

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Abstract

Lake rearing is a rare life history strategy for ocean-type chinook salmon (*Oncorhynchus tshawytscha*). In Lake Washington, WA, chinook utilize the littoral zone for a critical rearing period of up to six months before continuing their seaward migration. Heavy urbanization in the system makes the rearing conditions for juvenile chinook even more anomalous. In general, littoral habitat complexity decreases as shoreline development occurs. Consequences of urban development on littoral zone health range from decreases in riparian vegetation and increases in shoreline revetments to physical disruption of the benthos by recreational users. All of these factors could adversely affect juvenile chinook salmon feeding habits and prey production in the lake. This study examines the diet of juvenile chinook salmon feeding in littoral areas of Lake Washington. It also examines the impact of human development on juvenile chinook prey resources. The results of this study show that chinook prey is affected by the human impact on the shores of Lake Washington.