Oregon Department of Fish and Wildlife's Willamette Chinook Salmon (OWCS) Database, Beta Version.

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Statistical modeling is an essential tool for predicting the responses of populations of spring Chinook salmon in the Willamette River Basin to dam operations, fish passage, and fisheries. Responses by Chinook salmon can include changes in their abundance, age structure, life history diversity, and habitat use. Empirical data collected by rigorous methods over time and space is essential to improve understanding of previous responses by these fish to their environment and to improve forecasts for future responses. Such data have been, and are being collected by the Oregon Department of Fish and Wildlife. These data can inform and populate statistical models, which can be used to test hypotheses with predictor variables such as climate characteristics, dam operations and flow regimes to generate estimates of escapement numbers, smolt-to-adult ratios, and age compositions for Chinook salmon. To set the stage for such multi-year analyses, we have constructed and populated the **O**regon Department of Fish and Wildlife's **W**illamette **C**hinook **S**almon (**OWCS**) Database, Beta Version. This relational database (81.6 MB) includes data collected on spawning ground surveys such as redds and carcasses, and biological and analytical data from fish carcasses such as sex, length, spawning success, and age. The database incorporates data collected by dozens of field staff during 2000 – 2013, across hundreds of kilometers of multiple subbasins, and thousands of fish in nearly 15,000 data records. Oregon Department of Fish and Wildlife biologists are currently using the database to assist with ongoing analyses on spawning distribution, hatchery-wild composition of populations, contribution of life history diversity, and other aspects to better understand Willamette Chinook populations over their entire life cycle.