Abundance and Run Timing of Adult Salmon in the Kateel River, Koyukuk National Wildlife Refuge, Alaska, 2001-2003

A 3-year study was initiated in 2001 to collect biological information on Chinook Oncorhynchus tshawytscha and summer chum salmon O. keta migrating into the Kateel River to spawn, a tributary of the Koyukuk River, Alaska. A resistance board weir was used to assess passage rates and collect biological data. Additionally, passage information was recorded for whitefish (Coregoninae), longnose sucker Catostomus catostomus, Arctic grayling Thymallus arcticus, and northern pike Esox lucius. Due to unforeseen delays in transporting the weir material and field supplies to this remote site, the weir was not fully operational in 2001. In 2002, the weir was installed and operated from June 23 to July 27. A total of 73 Chinook and 2,853 summer chum salmon passed through the weir. The most abundant resident species passing through the weir were whitefish (N=13), followed by longnose sucker (N=6), Arctic grayling (N=4), and northern pike (N=3). The median passage date for Chinook salmon was July 12. Females comprised 29% of the Chinook salmon run, with age class 1.2 dominating (50%). The mean MEL length of female Chinook salmon was 710 mm, ranging from 515 to 865 mm, and male length averaged 596 mm, ranging from 410 to 845 mm. The median passage date for summer chum salmon was July 11. Females comprised 45% of the summer chum salmon run, with age class 0.3 dominating (58%). The mean MEL length of female summer chum salmon was 555 mm, ranging from 380 to 650 mm, and male length averaged 587 mm, ranging from 450 to 670 mm. In 2003, budget constraints forced the cancellation of operations in the Kateel River. It is recommended that tributary streams containing small salmon stocks, like the Kateel River, be monitored on a periodic basis.

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