Run Timing, Abundance, and Distribution of Adult Coho Salmon in the Kasilof River Watershed, Alaska, 2007

Run timing, abundance, and distribution information was collected on coho salmon in the upper Kasilof River watershed during 2007 using fish weirs equipped with underwater video systems and radio telemetry. Fish weirs with video systems were installed and operated on Nikolai and Shantatalik creeks between 4 August and 16 November. Each weir and video system was installed several days prior to coho salmon entering either stream. A combined total of 1,556 coho salmon was counted past the Nikolai (*N*=837) and Shantatalik (*N*=719) creek weirs between 19 August and 15 November. Peak weekly passage occurred between 16 and 22 September for both creeks. Radio-transmitters were implanted in 109 coho salmon captured in the Kasilof River between 17 August and 15 October. About 40% (*N*=43) of the radio-tagged coho salmon selected spawning locations in the study area upstream of the Kenai National Wildlife Refuge boundary at Silver Salmon Rapids. Of those fish, 29 spawned in the upper mainstem Kasilof River and 14 selected spawning locations in tributaries of Tustumena Lake. Tustumena Lake tributary streams selected by radio-tagged fish included Shantatalik (*N*=6), Nikolai (*N*=4), and Indian (*N*=4) creeks. Other radio-tagged fish spawned outside the study area in Crooked Creek (*N*=6) and the mainstem Kasilof River downstream of the refuge boundary (*N*=4). No spawning destination could be determined for about half of the radio-tagged fish.

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