The purpose of this three-year (2005-07) project was to use radiotelemetry techniques to assess the spawning distribution and run timing for adult sockeye salmon *Oncorhynchus nerka* stocks in the Copper River, Alaska. This report summarizes the results from the 2007 field season and synthesizes results from the 2005-2007 studies. Specific objectives were to: (1) estimate the proportions of sockeye salmon returning to major spawning areas of the Copper River (Lower Copper, Chitina, Tonsina, Klutina, Tazlina, Gulkana and Upper Copper rivers) such that the proportions were within 10% of the true proportions 95% of the time; and (2) describe the stock-specific, migratory timing profiles of sockeye salmon in the Copper River at the point of capture in Baird Canyon. In 2007 the largest proportion of spawners returned to the Klutina River drainage (0.54), followed by the Tazlina (0.10), Gulkana (0.09), Lower Copper (0.09), Upper Copper ( 0.07), Chitina (0.05), and Tonsina (0.05) rivers. Run-timing patterns at the capture site varied among stocks in 2007. The mean date of passage at Baird Canyon varied from 5 June for the Tazlina stock to 22 July for the Tonsina stock.
Spawning distributions varied significantly over the three-year study period ($\chi 2 = 85.6$, df = 12, $P < 0.001$). The largest proportion of spawners returned to the Klutina River in all three years (0.35 in 2005, 0.45 in 2006, and 0.54 in 2007). Contributions by the remaining six spawning tributaries included: Lower Copper (0.06-0.07), Chitina (0.05-0.08), Tonsina (0.05-0.06), Tazlina (0.10-0.12), Gulkana (0.07-0.16), and Upper Copper (0.07-0.28) rivers. Run timing patterns followed similar trends across years; fish returning to rivers in the upper reaches of the Copper River tended to have earlier run timing than those returning to the lower reaches of the Copper River. Mean date of passage at Baird Canyon ranged from 31 May for the Tazlina River (2005) to 22 July for the Tonsina River (2007).

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