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Division: Commercial Fish

Title: Origins of sockeye salmon caught within the Harbor Point to Strogonof Point reach of the Alaska Peninsula management area, 8-21 July, 1990

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Abstract: Stock composition of the Alaska Peninsula Management Area sockeye salmon *Oncorhynchus nerka* catch from Harbor Point to Strogonof Point during 8-21 July 1990 was estimated using scale pattern analysis. This catch represented approximately 50% of the total 1990 sockeye harvest within this area. Age-2.2 and 2.3 scale patterns were used with standards derived from North Peninsula Bear River escapement and Nelson Lagoon catch samples; Bristol Bay standards were obtained from terminal catch district samples. Models derived for classifying age-specific commercial catch scales collected from fish of unknown origin had mean correct classifications of 77% for age 2.2 and 74% for age 2.3. The age-2.3 model was evaluated for stability using Monte Carlo simulations. Estimated stock composition of the Harbor Point to Cape Seniavin area catch, inclusive of all age classes, was 48% Nelson River, 42% Bristol Bay, and 10% Bear River. Estimated stock composition of the Cape Seniavin to Strogonof Point area catch was 78% Bristol Bay, 11% Bear River, and 11% Nelson River fish. Abundance of Bristol Bay sockeye salmon in the North Peninsula Harbor Point to Strogonof Point area, during July, may be a function of Bristol Bay run strength.

Keywords: sockeye salmon *Oncorhynchus nerka* stock separation scale pattern analysis North Peninsula

Submitted by BBEDC