

Hetta Lake sockeye salmon (*Oncorhynchus nerka*) stock assessment project

Abstract: Hetta Lake sockeye salmon are an important subsistence resource for the people of Hydaburg. The Hetta Lake Sockeye Salmon Stock Assessment Project was initiated because of concerns about the apparent declines in sockeye salmon returning to Hetta Lake. The project evaluates sockeye salmon production at various life stages and assesses lake productivity. This annual report summarizes work conducted during the first year of project operations, 2001. The mid-water trawl catch was 95% sockeye fry and 5% sticklebacks. The hydroacoustic survey estimated sockeye fry density at 1.202 fry per m² and the total lake estimate was 3 million sockeye salmon fry. The total stickleback population was estimated to be 0.17 million fish. The returning adult sockeye salmon population estimate, for the study area only, was 2,400 fish. The subsistence harvest was estimated to be 4,400 sockeye salmon. Hetta Lake had a seasonal mean zooplankton density of 44,000 plankters per m² and a seasonal mean weighted biomass of 128 mg per m². The seasonal mean euphotic zone depth was 8 m. This year's results provide the foundation for a multiple-year study to assess the health of sockeye salmon stocks in Hetta Lake and to set a range of escapement goals capable of sustaining this population for many generations.

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