

ABSTRACT

Salmon Lake is a small salmon-producing system located at the head of Silver Bay, near Sitka, Alaska. Because of this lake's easy access from the nearby city of Sitka, and because of the closure to subsistence fishing in nearby Redoubt Lake, the Alaska Department of Fish and Game, in cooperation with Sitka Tribe of Alaska and the U.S. Forest Service, launched an assessment project for this system in 2001. The Sitka Tribe of Alaska took over the sockeye portion of this project in 2004, and here we report on the last two years of study: 2005 and 2006. Over the six years of study the estimated sockeye escapement ranged from about 1,000 to 2,500 sockeye salmon, with estimates in 2005 and 2006 of 2,500 and 1,900, respectively. In all years, spawning stock size (escapement) was measured with a counting weir validated by a mark-recapture study. As in previous years, in 2005 and 2006 an analysis of the mark rate in the recapture samples showed that a substantial number of fish had passed through the weir unobserved and uncounted—emphasizing the importance of the mark-recapture portion of the study. Interestingly, this system produced a large number of jacks, or 3-year-old male sockeye salmon, with this age class making up over 25% of the escapement sample in the last two years of the study (34% in 2005 and 25% in 2006). Although measures of the exact number of fishery removals is unavailable, it appears that fishery removals were a small part of the total run in the years 2001 to 2006, and the run appears stable and sustained at the present time.