

ABSTRACT

A stock assessment of burbot *Lota lota* was conducted at Tanada Lake in 2007. Burbot were captured using baited hoop traps soaked for two nights (approximately 48 h) and systematically set along equally spaced transects. Sampling was conducted twice as part of a two-event mark-recapture experiment. The first event occurred from 25 June to 6 July and 388 traps were set. The second event took place from 12 to 19 September and 333 traps were set. Mean catch per unit effort (CPUE), length composition and abundance were estimated. Mean CPUE of fully recruited burbot (i.e., ≥ 450 mm TL) for the first event was 1.17 (SE = 0.19) burbot/trap and was 0.89 (SE = 0.13) burbot/trap for the second event. A pooled Chapman's modified Petersen estimator was used to estimate the abundance of fully recruited burbot at 2,217 (90% CI = 1,821 - 2,613). Burbot from 450 to 549 mm TL composed 77% of the total estimated abundance of fully recruited burbot. Measurements (1.0 m depth increments) of water temperature ($^{\circ}$ C), conductivity (μ S/cm), dissolved oxygen (DO) and pH were recorded at several occasions during the spring, summer and fall and all measurements were within expected ranges.

Key words: Burbot, *Lota lota*, abundance, length composition, catch per unit effort, hoop traps, mean length, Tanada Lake.

Schwanke, C. J. and M. McCormick 2008. Tanada Lake Burbot Stock Assessment, 2007. U.S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, 2008 Annual Report (Study No. 07-501).