Copper Lake Burbot Stock Assessment, 2008

A stock assessment of burbot *Lota lota* was conducted at Copper Lake in 2008 using a two-event mark-recapture experiment. Burbot were captured using baited hoop traps soaked for two nights (approximately 48 h) and systematically set along equally spaced transects. The first event occurred from 7 to 15 June and 382 traps were set. The second event took place from 10 to 17 September and 311 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 0.041 (SE = 0.016) burbot/trap and was 0.096 (SE = 0.031) burbot/trap for the second event. A length-stratified, Chapman-modified Petersen model was used and the abundance estimate of burbot ≥ 315 mm TL was 943 (90% CI = 550 – 1,337). Smaller sized fish (315–425 mm TL) dominated the catches. Measurements (1.0 m depth increments) of water temperature (°C), conductivity (µS/cm), dissolved oxygen (DO) and pH were recorded at several occasions during the spring, summer, and fall and all measurements were within expected ranges.

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