

# **Stock Assessment of Rainbow Smelt in Togiak River, Togiak National Wildlife Refuge, Alaska, 2007**

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## **Abstract**

A life history study and stock assessment of rainbow smelt *Osmerus mordax* in Togiak River began on 14 May and continued through 29 June 2007. A total of 1,084 rainbow smelt were captured primarily by gillnet for biological sampling, and of those 542 otoliths were processed for aging. Seven age classes ranging from age 2 to age 6 for females and from age 2 to age 8 for males were identified. Mean lengths by age ranged from 191 to 282 mm for females and from 187 to 273 mm for males. Females were estimated to comprise 13% of the spawning population during the sampling period. Seventeen ovary pairs were intact and suitable for analysis, and fecundity estimates ranged from 17,000 to 90,000 eggs per female and averaged 52,000. Larval sampling began on 8 June and continued through 27 June 2007. A total of 31 samples were collected and analyzed. The spawning run biomass could not be accurately estimated because of gaps in data collection.