

DISTRIBUTION, ABUNDANCE, AND AGE STRUCTURE OF JUVENILE BULL TROUT IN A TRIBUTARY TO QUARTZ LAKE, GLACIER NATIONAL PARK, MONTANA

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Lacustrine-adfluvial bull trout (*Salvelinus confluentus*) occupy lakes west of the Continental Divide in Glacier National Park (GNP), Montana. Research in GNP has focused primarily on the relative abundance of bull trout within lakes, patterns of connectivity among bull trout populations, and interactions between adult bull trout and nonnative lake trout (*S. namaycush*). Consequently, there is little known about the ecology, abundance, and distribution of juvenile bull trout within headwater drainages in GNP. The expanding distribution and potential negative effects of lake trout on bull trout within GNP has made understanding the ecology of juvenile bull trout a high priority. This study documented the distribution, relative abundance, and age structure of juvenile bull trout in the Quartz Drainage upstream of Quartz Lake. The study area included Quartz Creek and Rainbow Creek; a tributary that enters Quartz Creek about 1.25 km upstream of Quartz Lake. Juvenile bull trout were sampled using a backpack electrofishing unit; bull trout were enumerated and measured for length. Juvenile bull trout were distributed throughout the study area. Relative abundance of juvenile bull trout was greater downstream of the confluence of Quartz and Rainbow creeks than upstream. A bimodal length-frequency distribution suggested that the bull trout present were age-1 and age-2+. These data provide baseline information needed for future recovery efforts aimed at mitigating potential negative effects associated with lake trout colonization.