
TWENTY-THREE YEARS OF HARLEQUIN DUCK SURVEYS ON THE ROCKY MOUNTAIN FRONT: DO WE KNOW ANYTHING YET?

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Harlequin duck (*Histrionicus histrionicus*) surveys have been carried out continuously on the Rocky Mountain Ranger District (RMRD) for 23 years, beginning in 1990. Streams are surveyed on foot in spring to assess occupancy by breeding pairs, and in summer to count broods. Habitat and activity data have been collected for 260 separate observations (comprising over 700 individual ducks). We have summarized the habitats in which harlequins have been observed, including potential differences between pair and brood observations. Harlequins on the RMRD tend to be found in habitats similar to those described for other areas: in fast-moving segments of streams and in areas with shrub or tree overstory. Most observations are in areas accessible to, but not immediately adjacent to areas of human use. Most observations do not occur in proximity to within-stream woody debris, which may differ from findings elsewhere. We have not yet collected data with which to evaluate whether harlequin ducks actively select for any of these habitat characteristics. In 2007 three major fires burned on the RMRD, affecting several key harlequin breeding streams. We altered our survey areas to focus on the most historically productive stream system in the hopes of detecting any impacts of fire on harlequin occupancy or productivity. We have also begun to survey streams that have not been surveyed since the original 1990-1992 inventory. We provide possible explanations for the absence of harlequin ducks on several apparently suitable stream systems. We also discuss the direction we hope to take with future surveys and analyses.