Effects of Metal Contamination on Bird Communities inWestern Montana

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A century of mining by milling and smelting in western Montana's Upper Clark Fork River Basin shaped the region economically, socially and politically, but also disturbed and contaminated riparian and uplands areas. Remedy for contamination of EPA designated superfund areas has been pursued to meet human health standards for clean air and water. We analyzed a decade of bird banding data collected from riparian sites both within and outside of the affected areasin effort to understand how these efforts have met needs of the songbird community and where they have fallen short. We found that songbird communities from a riparian area in the Mt. Haggin WMA exhibited poorer body condition and lower reproductive success, while songbird communities along the Upper Clark Fork were similar to reference sites, except during immediate post-restoration years. Differences observed plausibly result from either ingestion ofmetal(oid)s or impacts on invertebrate prey. However, as vegetation gradually matures in the areas impacted by remediation and restoration actions, there is evidence of songbird community changes reflective of the change in habitat, emphasizing the importance of work that continues to enhance riparian habitat.