

PRIORITIZATION OF EASTERN WYOMING PRAIRIE STREAMS FOR CONSERVATION

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The abundance and distribution of native fish species in warmwater streams has declined throughout North America, but little is known about the current distribution, abundance, and habitat requirements of native fishes in eastern Wyoming streams. Prairie streams are an imperiled resource and future monitoring and conservation of these streams is crucial for the protection of native fishes in these streams. Therefore, in 2004 and 2005, 104 Warmwater Stream Assessment surveys were conducted to assess the status of habitat and native species in prairie streams of eastern Wyoming. A total of 56,931 fish were captured, representing 39 species (14 nonnative) and nine families. A fish assemblage index of biotic integrity (IBI), originally developed in Montana for Northwestern Great Plains streams, was modified for use in Wyoming. This index used metrics based on species richness, species composition, and trophic and reproductive groupings to determine the biologic integrity of streams. The IBI scores and presence of species of concern were then used to prioritize streams for future conservation efforts.