

PROJECT ABSTRACT

Colorado Plateau Cooperative Ecosystem Studies Unit (Cooperative Agreement # H1200-09-0005)

Park: Dinosaur National Monument

Project Title: Inventory and Comparison of Aquatic Macroinvertebrates in the Green and Yampa Rivers within Dinosaur National Monument

Funding Amount: \$23,500

CPCESU Partner Institution: Utah State University

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Start Date: August 1, 2009

End Date: September 30, 2012

Abstract: Macroinvertebrate fauna have been consistently sampled throughout Dinosaur National Monument (DINO) and the greater Green River watershed for over eight years. Specifically, the National Aquatic Monitoring Center, in cooperation with NPS, has extensively sampled the Green River below Flaming Gorge dam, the Yampa River in Yampa Canyon and the Green River below the confluence with the Yampa. Although individual reports have resulted from such efforts, no comprehensive synthesis of this work has been conducted. Therefore, we seek to compile all historic and current macroinvertebrate data collected on the Green River below Flaming Gorge dam and from the Yampa River within Dinosaur. We will describe differences between the two rivers and quantify the remediating effects of the largely unregulated Yampa River on the Green River below the confluence at Echo Park. This retrospective analysis will be complemented by establishment of long-term monitoring sites and continued macroinvertebrate sampling in 2009 and 2010. Findings from this study, will inform future monitoring and research efforts related to water development projects on the Yampa River, the establishment and spread of invasive species (e.g., NZMS) and links among concordant geomorphic and riparian monitoring.

Keywords: Aquatic invertebrates, river ecology, inventory and monitoring, biodiversity, species richness, Green River, Yampa River, invasive species, aquatic nuisance species, dams, hydrologic alterations