

Integrated Stream Monitoring to Inform Resource Management in Northern Colorado Plateau National Parks

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ABSTRACT

Integrating multiple components into aquatic monitoring programs optimizes resources and improves understanding and the ability to successfully manage complex and dynamic natural systems by providing multiple lines of evidence. The National Park Service Inventory and Monitoring Program is implementing an integrated, multi-scale riparian, water-quality and aquatic macroinvertebrate monitoring program on wadeable streams in National Parks on the Northern Colorado Plateau. Monitoring data will help establish the natural variation in these resources, and thus provide a basis for understanding observed changes and possible management connections. Information from this program will be used by managers to track change due to drivers affecting Park resources and consequently mitigate negative impacts within their control. Initial results will establish baselines for expected ranges in natural conditions and have already been used in a petition to increase levels of protection, identify areas of concern, and provide rationale to remove one stream from the 303(d) list of impaired water bodies.

KEYWORDS Water quality, aquatic macroinvertebrates, riparian, monitoring, Colorado Plateau