



Fish Communities at Ozark National Scenic Riverways – Status Report

Importance:

The Current River meanders through the Ozark Plateau as one of a few free-flowing rivers remaining in our nation. Ozark National Scenic Riverways (OZAR) protects the Current River corridor and its major tributary, the Jacks Fork. Only a small percentage of the watershed resides within the park boundary, leaving most of the watershed unprotected by the National Park Service.

In the Ozark Plateau, ground water and surface water interact freely through the porous limestone bedrock that lies beneath the shallow soils. This interaction also places water at risk of contamination from human sources. The fish communities of the Current River and its tributaries are good indicators of water quality and stream health with fish community composition indicating environmental conditions. Several species of fish found in the Current River occur only in the Ozark Plateau region and many other species are extremely sensitive to poor water quality.

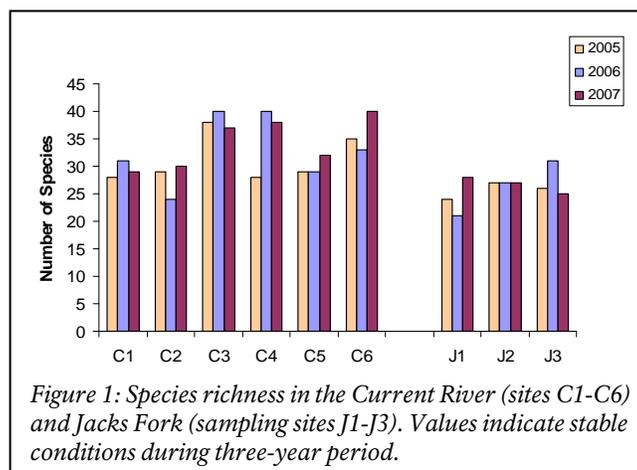


Long Term Monitoring:¹

In October 2005, the Heartland Network Inventory and Monitoring Program began annual fish monitoring at OZAR to assess the status and obtain baseline information on fish communities, physical habitat, water quality, and overall stream health for the Current River and Jacks Fork. The Network sampled six sites on the Current River and three sites on the Jacks Fork during 2005-2007 to gather that baseline information. Interpretation of data collected through long-term monitoring will equip park managers with a science-based understanding from which they can make informed decisions on aquatic resource management.

Status and Trends:

The high numbers of fish species, high Index of Biotic Integrity (IBI) scores, low occurrence rate of species associated with poor water quality, and high occurrence rate of species associated with good water quality indicate a highly diverse and healthy fish community. The investigators also found that:



1. Overall, fish community measurements between years suggest that little change occurs in community structure from one year to the next.
2. Water quality conditions at OZAR were typical of other Ozark Plateau streams and were within suitable ranges for fishes.
3. The relative stability of measures over the three-year period provide an excellent baseline for tracking trends in fish communities and water quality over time, allowing managers to adaptively respond to changes in resource condition.



¹ Dodd, H. R. 2009. Fish community monitoring at Ozark National Scenic Riverways: 2005-2007 status report. Natural Resource Technical Report NPS/HTLN/NRTR—2009/224. National Park Service, Fort Collins, Colorado.