



BENT'S OLD FORT N.H.S.

PROJECT SUMMARY

Survey of Fish and Plant Species at Bent's Old Fort National Historic Site

Source: Rinda E. Tisdale-Hein
U.S. Department of the Interior
Bureau of Reclamation



Introduction and Background

During September 2005, the Bureau of Reclamation conducted an inventory of the fish species in the Arch Wetland and in the Arkansas River within the boundaries of Bent's Old Fort National Historic Site (BEOL) in Otero County, Colorado. An inventory of plant species was also conducted at the Arch Wetland during September 2005 and May 2006. Both of these inventories were part of an effort to identify any species of concern or additional species occurrences. A secondary objective of the fish sampling was to document the presence of individuals or habitat of the state-threatened Arkansas darter (*Etheostoma cragini*).

(*Lepomis macrochirus*), do not cause an immediate threat to the native species, due to the health of the native populations. No Arkansas darters were found in either the wetland or the river. The available habitat for the Arkansas darter in the Arch Wetland is highly unsuitable, and the habitat in the Arkansas River is marginally suitable. The documented species are typical of what is expected to be present in the Arkansas River. A few less common species were not captured, but are presumed to be present.

Results and Discussion

Fish

A total of 12 fish species were detected at BEOL, including 8 new species records for the park. The park now has a total of 13 fish species detected within the park. In this study, 3 fish species were documented in the Arch Wetland, and 9 fish species were documented in the Arkansas River. The flathead chub (*Hybopsis gracilis*) is the only species of conservation concern (a state species of concern in Colorado) detected within the park. The exotic species that are present, mosquitofish (*Gambusia affinis*) and bluegill

Plants

A total of 82 plant species were documented in and around the Arch Wetland, including 18 species that were new records for the park. None of the recorded species are listed as threatened or endangered or tracked by the Colorado Natural Heritage Program. The new species detected appeared to be primarily common weedy species or cultured ornamentals. The overall health of the plant community



Flathead chub
(*Hybopsis gracilis*)



Mosquitofish (*Gambusia affinis*)

Photo: John Woodling

Project Summary - Fish & Plant Survey (BEOL)



Arch Wetland

in and around the Arch Wetland appears to be fair, with some limitations regarding the abundance of exotic cattails (*Typha angustifolia*) and Canada thistle (*Cirsium arvense*). The diversity and abundance of both plant and fish species at the Arch Wetland would improve with an aggressive exotic plant control program.

During the fish and plant surveys, there were incidental observations of 4 herp species. At the Arch Wetland, a bull-frog (*Rana catesbeiana*) and a garter snake (*Thamnophis sp.*) were recorded. Along the banks of the Arkansas River, several leopard frogs (*Rana pipiens*) and a northern water snake (*Nerodia sipedon*) were observed.

Project Contacts

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