

Wyaconda River

WATERSHED

INVENTORY AND ASSESSMENT

PREPARED BY:

Chris Williamson

and

Brian Todd

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Missouri Department of Conservation

For additional information contact

Fisheries Regional Supervisor

Missouri Department of Conservation

2500 South Halliburton, Kirksville, MO 63501

EXECUTIVE SUMMARY

The Wyaconda River basin is located in the Glaciated Plains Natural Division of southeast Iowa and northeast Missouri. The basin drains 458 square miles of land, of which 336 square miles lie within the state of Missouri. The Wyaconda River, a fifth order stream, is the largest within the basin and enters the Mississippi River above LaGrange, MO. There are 18 third order and larger streams within the basin.

The upper basin differs to some extent from the lower basin. The upper basin is characterized by soils from the Deep Loess and Drift general soil associations and the topography is rolling to hilly with some wide, nearly level ridge tops and bottom land. The lower basin is characterized by soils from the Central Mississippi Valley Wooded Slopes and the topography is dominated by more rugged hills and broad floodplains. Stream gradients are fairly low throughout the basin, with the exception of a few small tributaries in the lower basin.

When the first settlers arrived in the basin, approximately 50% of the land was tall grass prairie. Agriculture became the dominated land use and continues to this day. Forty-two percent of the basin is currently used for croplands, while 40% of the basin remains in grasslands. The impact of agriculture on basin streams is significant. Channelization of streams and sedimentation from poor land practices continue to be the major management problems in the basin. Excessive sediment from non-point sources is the main water quality concern, with no significant impact from point sources. Both channelization and sedimentation reduce aquatic habitat and disrupt ecological processes within these streams.

Forty-five species of fish were found in recent surveys from 1988. The dominant fish families were the minnows (17 species), catfishes (7 species), sunfishes (7 species), suckers (6 species), and perches (5 species). The most common and abundant species collected in recent surveys were the red shiner (*Cyprinella lutrensis*) and bigmouth shiner (*Notropis dorsalis*). Sportfish (13 species that provide angling opportunity) comprised approximately 3% of all fish collected in basin streams. Channel catfish (*Ictalurus punctatus*), probably the most popular game species, occurred at 40% of all sites, but accounted for only 1% of the total fish collected. Three species found in the basin prior to 1988 and not found in recent surveys include the following: Mississippi silvery minnow (*Hybognathus nuchalis*), bluntnose darter (*Etheostoma chlorosomum*), and ghost shiner (*Notropis buchanani*), which were all last found in 1941. All three species have likely been extirpated from the basin. No threaten or endangered species have been collected in recent surveys.

Due the highly altered state of the upper basin streams, public use is minimal. Habitat reductions from channelization and excessive sedimentation have made the fish community less appealing to anglers. Boaters are scarce due to the same channel alterations. Opportunities for improvement do exist by working with landowners on a watershed scale to reduce sedimentation and channelization. Other management opportunities include: acquiring new and develop existing stream access areas to increase public use, passively restoring riparian areas on MDC areas, assisting landowners with corridor restoration, long-term aquatic community monitoring, fishery research needs, assisting citizen-led watershed conservation efforts, and educating youth.

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