

State of the Fox River: Summary of Fish Sampling Efforts by Illinois Department of Natural Resources 1995-2009.
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Since 1995, Illinois DNR has conducted 160 fish community samples at over 120 sites in the Fox River Watershed, as well as many targeted studies for sportfish species. Evaluation of fish assemblages allows us to gauge the general health of the Fox River and its tributaries using the Index of Biotic Integrity (IBI), and to track trends in stream quality throughout the system.

As part of the Statewide Basin Survey Program we sampled 34 locations in 2007, including 14 mainstem and 20 tributary locations providing a snapshot of current conditions. Although fish diversity and sportfish were good throughout much of the mainstem, IBI scores generally increased as you move downstream, and were much higher in the less developed, free-flowing areas of Kendall and LaSalle Counties. A similar trend was observed for tributary stations, with Big Rock, Indian (LaSalle Co.), Buck, and lower Somonauk Creeks yielding the highest IBI scores ranging from 53 to 58 on a scale of 0-60. A total of 18 stations in the watershed have been sampled three times since 1996. Most of these stations showed no significant trend in IBI scores, with the exception of an area the middle Fox River and Nippersink Creek, which decreased in stream quality over the sampling period from 1996 to 2007. (For the full 2007 Fox River Basin Survey Report go to http://www.ifishillinois.org/science/survey_by_year.html).

An additional 99 sites on 14 streams were sampled since 1995 as a part of our Intensive Sub-Watershed Sampling Program. This Regional effort provides more comprehensive data on tributary streams for Watershed Groups, Partnerships, and other applications. Our data indicates low to moderate stream quality through out all stations on Nippersink, Poplar, Brewster, Mill, Blackberry, and Indian (Kane Co) Creeks. Tyler, Ferson, Little Rock, Rob Roy, and Somonauk Creeks had areas of higher quality (IBI range 45-56) in the downstream, unchannelized segments. Big Rock and Indian Creek (LaSalle/DeKalb County) appear to have consistently high quality conditions throughout most of their length. Only 33% of the tributary stations sampled met the IEPA's minimum criteria (IBI \geq 41) for Full Support of Aquatic Life Use.

Results of our surveys are in general agreement with IEPA's 2008 Integrated Water Quality Report (<http://www.epa.state.il.us/water/water-quality/index.html>) which designates much of the Fox River mainstem and many tributaries impaired for Aquatic Life Use. Primary sources of impairment include dams, urban point and nonpoint source pollution, and habitat modification. Although many areas are affected by current and past agricultural activities, expanding urban development remains the largest threat to stream quality.

Despite the problems and challenges, the Fox River still provides a great recreational, economic, and biodiversity resource. Sportfish populations, including smallmouth bass, channel catfish, walleye, and flathead catfish are in good condition in many areas of the mainstem. The watershed also contains some of the highest quality tributary streams in Illinois, supporting unique and colorful species such as greater redhorse, mottled sculpin, rainbow darter, and Southern redbelly dace. These resources are certainly worthy of all efforts aimed at protection and improvement.