

Environmental Stewardship

Saylorville Lake Natural Resources

Saylorville Lake is a twenty six thousand acre project situated in the central part of the state. Saylorville was developed as a flood control project to provide protection to the city of Des Moines and other interests downstream of the dam. The Des Moines River is Iowa's largest interior stream. This river corridor has experienced massive change over the last 150 years. The historic river valley was a prairie stream young in age (glaciation) that drained a massive prairie landscape. Trees where they were able to persist grew primarily in savanna ecosystems dominated by Bur Oak and White Oak. Other species were confined to close proximity to the river where some protection from prairie fires was provided. Water quality was very high and while erosion (a natural process of streams) occurred, nothing could compare to the current siltation magnitude after agricultural conversion was complete.



Today the Saylorville Project represents the only major extension of timber into north central Iowa. Approximately 12000 acres are under forest cover primarily oak hickory association. Flood control has killed most of the trees associated with riparian corridors or valley slopes, leaving only ridge top forests continuing today. Naturally occurring wetlands associated with streams have been depleted and replaced with artificially constructed or manipulated wetlands. While these can be very valuable to wildlife, much of the natural diversity associated with original wetlands are gone. Native prairies once vast in size still exist only in small remnant tracts too difficult to farm or tucked away on steep slopes. While these pale in comparison to the rich black soil prairies and the qualities they maintained, these small prairie communities still support surprising diversity and the genetic building blocks for future restoration efforts. As a migratory corridor Saylorville Project has very high value especially for neo-tropic migrants, hawks and water birds. It also contains remnant habitats rich in biological diversity representing some of Iowa's most conservative species.

Wildlife

Saylorville has very rich wildlife resources and functions as both home to many of Iowa's permanent residence species and also migratory animals. Reintroduction programs have been successful in returning species once common to the Iowa landscape but eventually extirpated. These include Bald Eagle, Osprey, River Otter, Eastern Wild Turkey and Bobcat. The resource is significantly large enough to allow viable populations to exist and reproduce. Avian inventory and study has provided enough information to appreciate the diversity of birds that inhabit or migrate through the Saylorville Project. Saylorville attained the highest ranking of Globally Significant by the American Bird Conservancy. This recognition identifies by species the importance of the project by either species of concern or overall use of global populations of birds at the project. Over 325 species of birds have been identified here making bird watching a very significant recreational pursuit locally.

Most fisheries work and study has been targeted at game fish and fishing remains a popular and productive outdoor pursuit. What is lacking is information on other fish species. Almost totally lack of information exists on freshwater mussels. Often overlooked are insects which represent by far the greatest wildlife diversity. Landscapes with diverse plant inventories can support lots of insect life. Many of Iowa's most conservative insects are tied to plant communities (remnant prairies etc.) and find refuge on project lands. Both moth and butterfly surveys have been done on portions of Corps lands with surprising diversity and numbers of conservative species.



US Army Corps
of Engineers®
Rock Island District

Saylorville Lake - 5600 NW 78th Avenue - Johnston, IA 50131

Phone: (515) 964-0672 or (515) 276-4656

Website: www2.mvr.usace.army.mil/Saylorville/ Email: SaylorvilleLake@usace.army.mil

Problem, Threats and Opportunities

Primary Problems associated with the reservoir tend to be complex in nature and large in scale. Not in particular order three major problems resulting in threats to healthy ecosystems would be urbanization, siltation and succession.

Urbanization causes major stress on wildlife populations and ecosystems in general by creating fragmentation, increasing human influence on the land, allowing for the intrusion of non native plant and animal species. Many of Iowa's species of greatest conservation of concern species are in that status because of fragmentation and isolation. So many habitats adjacent to Corps properties is being converted from woodlands, fields and wild habitats to homes and lawns that urbanization poses a major threat to our most important species.



Siltation is literally choking the river system and the function of the dam slowing water creates a reservoir that acts like a giant silt trap. Iowa's valuable soils are being lost at an un-sustaining rate and ending up being deposited in the upper reaches of the reservoir. This shortens the expected life of the reservoir for recreational use, and has major impact on fisheries. Until the problem can be addressed at the source, Midwest reservoirs will continue fill in at current rapid rates.

Succession is a natural process whereby nature advances plant growth over time in an attempt to get to a climax vegetative cover that is both productive and sustainable. Naturally occurring disturbances influence the rate and direction of succession within ecosystems. The Des Moines River valley's historic rate of disturbance was very high thus producing a very diverse landscape. Through human settlement many disturbance creators no longer exist and the ecosystem is changing rapidly. Gone

from the landscape are immense prairies and their subsequent prairie fires. Fire probably, more than any other disturbance factor, molded the vegetative cover and subsequent wildlife that occupied this valley for five thousand years. Gone also are bison that occupied the prairie and the elk that foraged in the Des Moines River valley. Efforts to reinstate these disturbances once again on the landscape has shown promise and proven resiliency of our landscape. Oak forests, prairies, and oak savannas are all ecosystems that require disturbance to survive. These resources need more and continued disturbance to survive as part of this project. Fire is an important tool to insure their persistence on the landscape and increased fire frequency and more lands managed under fire will be needed.

Invasive species has become a chronic problem across the state and invasion onto public lands is significant. Significant project resources are used annually in an attempt to control these introduced species that crowd out native vegetation or wildlife. Healthy ecosystems are better able to fend off invasive species so health is a contributor to success. Diligence in regard to tracking, control, and monitoring are keys to protecting the resource.

Opportunities abound to make sure that diversity is protected on Corps lands. Despite serious problems threatening project resources, public input and support can ensure that our valuable natural resources will continue to thrive and continue for future generations. Continued research and survey will help identify and guide the management of natural resources. Doing nothing to manage and protect will rapidly degenerate the resource to a low value resource with significant species decline.

