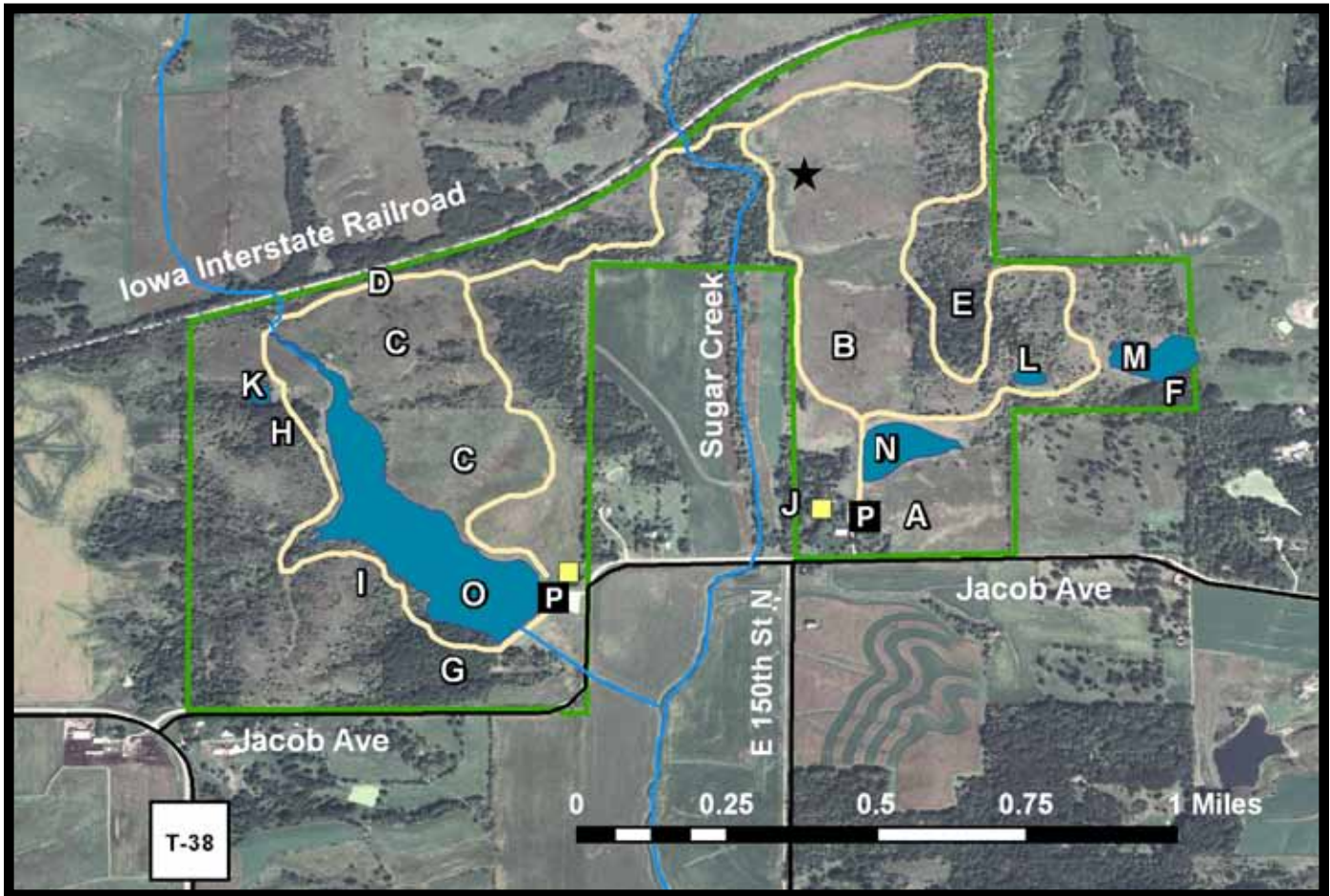


Jacob Krumm Nature Preserve



Jacob Krumm Nature Preserve

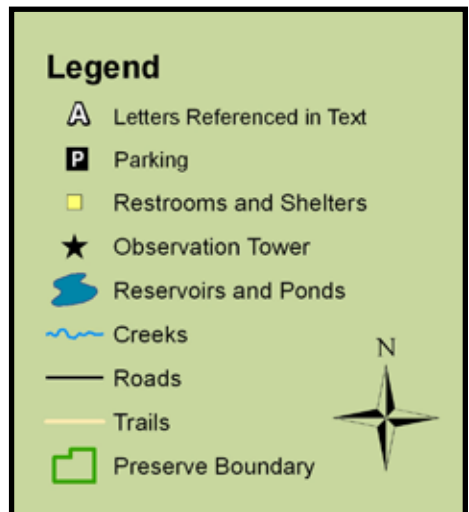


Jacob Krumm Nature Preserve is a 450-acre natural area five miles southwest of Grinnell. It is owned and managed by the Jasper County Conservation Board (JCCB).

From the east, go south out of Grinnell on Highway 146 for two miles to 410th Avenue, a gravel road just before the



trail bridge



Super 8 Motel, and then west two and three-quarter miles to the preserve's east parking area, or three and a quarter miles to the west parking area, called "Ahren's Access." (The name of the road changes in Jasper County to "Jacob Avenue.") From the west, take Lynnville exit 179 from Interstate 80, go north on Highway T-38 a quarter mile, and then about a mile east on Jacob Avenue.



gray-headed coneflower



rough blazing star



hoary puccoon

On the preserve's gently rolling terrain are woodland, reconstructed and native prairie, brushy areas, a 25-acre lake, ponds, and a wetland. A well-maintained trail system loops through the two units, providing routes of varying length for hiking, running, mountain biking, and skiing. There are toilets, drinking water, and picnic facilities adjacent to the east parking area. Similar facilities were recently installed near the west parking area. Fishing, boating, and pets (on leash) are allowed; hunting, motorized vehicles, and horses are not allowed.

History

When Jacob S. Krumm died in 1976, he bequeathed his 370-acre farm, which he had operated since 1922, to the Jasper County Conservation Board "so that a wildlife preserve and park may be developed for the use and enjoyment of the people of the State of Iowa, and in particular the people of Jasper and Poweshiek Counties, Iowa." Since the land had been in agricultural use for well over a century, fulfilling his wish required more than just ending the farming. A proposal developed in 1977 by four Grinnell College students called for "returning the land to what it once was, before it was cultivated and over-grazed."¹ Their plan for Krumm has been followed in many respects by the county conservation board.

Historic and recent aerial photographs are included at the end of the description for this preserve. The aerials serve as a visual confirmation of the changes in the vegetation over time that are referred to in the text.

¹ Julia Bell '77, Robin Chazdon '78, Peter Gerstenberger '78, and Joel Spiegel '78. "Prospectus of Jacob Krumm Wildlife Area," May 12, 1977.

Prairie

Central to this goal was constructing what the students called "artificial prairie" on most of the fields that had been in crops. The area east of the east parking lot (**A**), about 20 acres, and the area north of the dam leading from the east parking lot (**B**), about 50 acres, are well-established prairie reconstructions. They are burned periodically by the staff as part of the management plan. An area in the west unit (**C**) was planted to prairie in the late 1990s and reseeded a few years later. It did not become well established. Notice the large areas of brome and many rank, nonprairie plants interspersed with patches of big and little bluestem and occasional other prairie plants.

The small remnant prairie adjacent to the railroad tracks on the north edge of the west unit (**D**) contains a number of typical prairie forbs, including tall coreopsis, stiff goldenrod, rough blazing star, lead plant, rattlesnake master, compass plant, gray-headed coneflower, pale purple coneflower, hoary vervain, and hoary puccoon.

Grasses here include the common prairie species little bluestem and the less common rough dropseed. Although woody species, such as sumac, are encroaching on this prairie remnant, the JCCB plans to burn this remnant periodically to reduce and halt encroachment.

Savanna

The wooded area indicated at **E** on the map illustrates the challenge of restoring and maintaining a savanna today. Where the East Loop Trail swings back south into the trees,



oak savanna

notice about a dozen large bur oaks with spreading lower limbs. In a 1940 aerial photo, crowns of individual trees are clearly visible with spaces between. This allowed sunlight to reach their low, lateral limbs. But as shade-tolerant, rapid-growing trees like elm, box elder, and mulberry took root and thrived around and beneath, they blocked enough light to the leaves on the lower branches of the oaks to cause the limbs to die.

As you continue south along this leg of the trail and follow it around west and then back north, you come to an area where staff and volunteers have begun restoring savanna-like conditions. They have cut and removed the invasive trees, leaving the bur oaks, and have seeded in grasses and forbs. They have also reintroduced fire through controlled burning of the ground layer to deter re-establishment of unwanted woody species and to stimulate growth of the forbs, sedges, and grasses.

Woodland

There are three small woodlands at Krumm. One is a mature stand of bur oaks on the southeast boundary (**F**). Notice that shrubs and saplings of other tree species (elm, black cherry, and hackberry) are growing thickly beneath the oak canopy.



Jacob's ladder

Unless these are cut and the stumps treated with chemicals to inhibit resprouting, in time the brush will dominate the understory and the trees will reach up into the oaks. Periodic ground fire after cutting would keep future invasion in check. Spring wildflowers found here are moderate in variety and number, suggesting a history of grazing. They include bluebell (around the entrance), trout lily (especially on the north side), Dutchman's breeches, Jacob's ladder, bloodroot, and Mayapple.

Another woodland at Krumm is a younger, mixed species stand in the west unit bordering the southwest side of the lake (**G**). The most common species here are shagbark hickory, black oak, bitternut hickory, and black cherry. The relatively open character of this young forest and the presence of stumps suggests that wood was harvested here and that it was grazed. An aerial photo from 1940 shows this woodland smaller and with more scattered trees. In later photos it is seen expanding and the canopy filling in. Spring wildflowers here are the best of the three Krumm woodlands. They include Dutchman's breeches, trout lily, wild leek, Mayapple, bluebell, false Solomon's seal, and wild geranium.



bloodroot

The third woodland is a small bur oak grove in the west unit just south of the small pond (**H**). Earlier aerial photos show a few widely spaced trees surrounded by open field. The 1977 "Prospectus" by the Grinnell College students reported that "the native shrub and herb layers have been completely destroyed by over-grazing." Found there now are weeds such as burdock and the nonnative shrubs multiflora rose and Tartarian honeysuckle. Grazing and perhaps woodcutting may account for the fact that almost all the oaks here are multistem, having grown from resprouting. There is almost no spring flora here other than Mayapple and a few bluebells, so this area will be a good candidate for re-introducing spring wildflowers in the future.

Thicket

Perhaps the most remarkable change in the vegetation since the Krumm farm became the Krumm Nature Preserve is

the encroachment of brush and small trees, especially in areas that were permanent pasture and hay land. In aerial photos from 1940, 1955, and 1967, the only woodlands at those times were the three just mentioned. Along ravines and Sugar Creek there were scattered trees and brushy areas. Otherwise the farm was open, either under cultivation or in grass.

Now, however, large areas have been taken over by close-growing small trees, shrubs, and brush. For example, the portion of the trail on the west side of the lake between the two woodlands (**I**) is now flanked by a dense mix of hawthorn, multiflora rose, elm, and other species. Or in the east unit, the thick stands of wild plum and hawthorn along the trail have grown in since the property became a nature preserve in 1977. These do not represent plantings, but are natural expansion.

These dense woody stands do provide excellent nesting and food habitat for many species of birds. Listen for the beautiful song of the brown thrasher and look for it perched in the top of one of the taller trees. In April and early May, many of these thicket areas are colored with the blossoms of first wild plums, then hawthorn (both white), and then the pink and white of the Iowa crabapple.

Aquatic

The stream that cuts through the narrow neck of land connecting the two units of Krumm is Sugar Creek. It drains an area west and north of Grinnell, bisects the Sugar Creek Audubon Nature Sanctuary just north of Krumm, and then flows to the North Skunk River in south Poweshiek



swamp milkweed



constructed wetland

County. Within the narrow neck of land that connects east and west Krumm, the creek was not straightened, but below that it was. However, on the west side of the picnic area in the east unit (**J**) you can see some old streambed. Before channelization, the creek made a big half-moon loop to the east into the backside of Jacob Krumm's farmstead. The gently sloping drop-off behind the toilets is the old stream bank.

On Krumm Preserve, several small drainages that would have had wet areas have been dammed to form ponds and a lake. Recently, a semi-artificial marsh was created in a low area in the east unit in a process called wetland mitigation. First, dirt was removed to create a shallow depression. In the spring of 2002, marsh soil from a wetland that was to be destroyed during highway reconstruction in northwest Jasper County was moved to the excavated area. The expectation is that some plants in the transported soil will survive and re-sprout and that seeds in it will germinate. Wetland species, including swamp milkweed, cardinal flower, rose mallow, arrowhead, sedges, and bulrushes, were seeded in April 2002. Nearby to the east, a combination bird blind and observation tower has been constructed (marked with a star on the map).

Jacob Krumm built two small ponds on his farm (**K** and **L**). After 1976, Jasper County built two additional ponds. The one on the far eastern boundary (**M**) gets part of its inflow from the neighboring cattle feedlot just up the hill to the east, thus acting as a settling basin before its waters drain toward the pond near the east parking lot. That pond (**N**) is stocked with sport fish, including bluegill and largemouth bass.

The 25-acre lake in the west unit (**O**) was made possible with the addition of 80 acres to Krumm Preserve in 1994. The lake was designed to have a maximum depth of 22 feet near the dam and 3 feet as it shallows into a marsh at the north end. It is stocked with channel catfish, bluegill, bass, and crappie. Fishing regulations at Krumm prohibit using minnows for bait. Bass must be at least 18 inches long to be keepers. No gas-powered boats are permitted, and no swimming is allowed.

Muskrats live in several of these impoundments.

Historical Note

Under the oaks on the east side of the parking lot for the west unit of Krumm is the grave of Job Welling Jr., a 19-month-old whose parents were part of the Mormon Handcart Trek, which passed by here and used this spot as a campsite. Between 1856 and 1860, immigrants who had joined the Church of Jesus Christ of Latter-Day Saints set out from Iowa City, then the end of the rail line, for Salt Lake City. Because they could not afford wagons, they crafted wooden carts and pulled their supplies and belongings themselves. The cart boxes were usually three by four feet, with eight-inch sides centered over an axle attached to two wagon wheels. Two shafts extended forward, joined by a crosspiece that the person pulling could lean into. A fully loaded cart could hold about 500 pounds. Of the 2,962 handcart immigrants who set out, about 250 died along the way. The marker, which has been placed on the grave, reads as follows:

Mormon Handcart Trail

*This stone marks the grave of Job Welling, Jr.
October 20, 1854 June 17, 1856*

The son of Job and Frances E. Welling. He died approximately 10 miles east of here, and was buried Wednesday, June 18. From the camp journal of the First Company of Handcarts crossing the plains from Iowa City to Salt Lake City in the summer of 1856.

*Edmund Ellsworth, Captain
Andrew Galloway, Secretary
First Company
Handcarts to Zion*

Contact Information

The administrative offices of the Jasper County Conservation Board are located in Newton at 115 North 2nd Avenue East. The director, Keri Van Zante, and the naturalist, Katie Cantu, can be reached at 641-792-9780 or by e-mail at kvanzante@co.jasper.ia.us and kcantu@co.jasper.ia.us. The website of the board gives additional information about Krumm Preserve, as well as other natural areas that the county board administers: www.jaspercountyconservation.com.



oak savanna

Aerial Photographs of Jacob Krumm Nature Preserve

Please note that the preserve boundaries indicated on these aerial photographs are approximate.
When visiting this preserve, please note signage and respect preserve and private property lines.



1930s

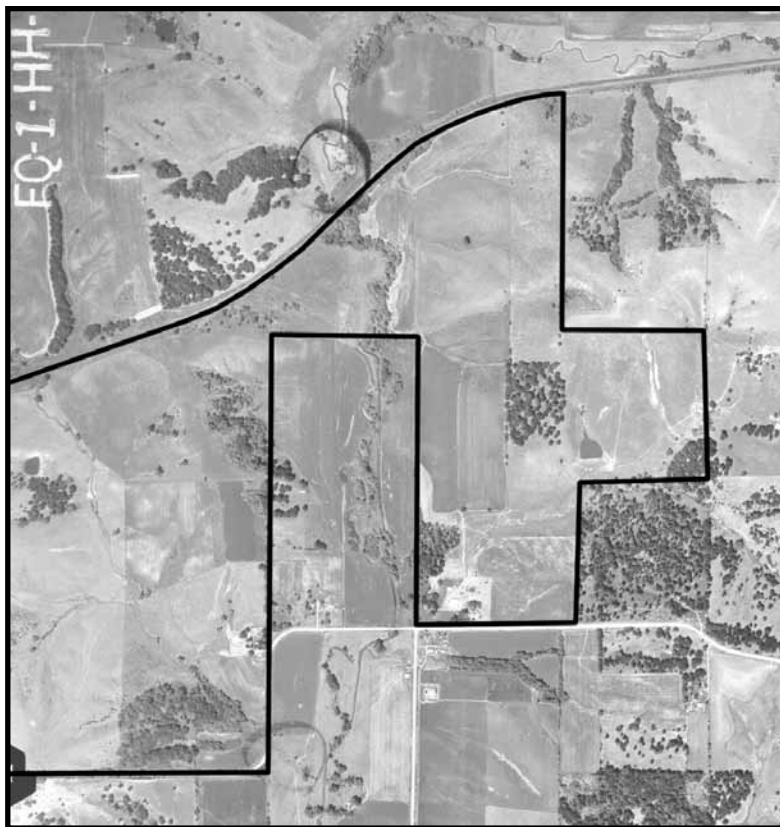


1940

Aerial Photographs of Jacob Krumm Nature Preserve

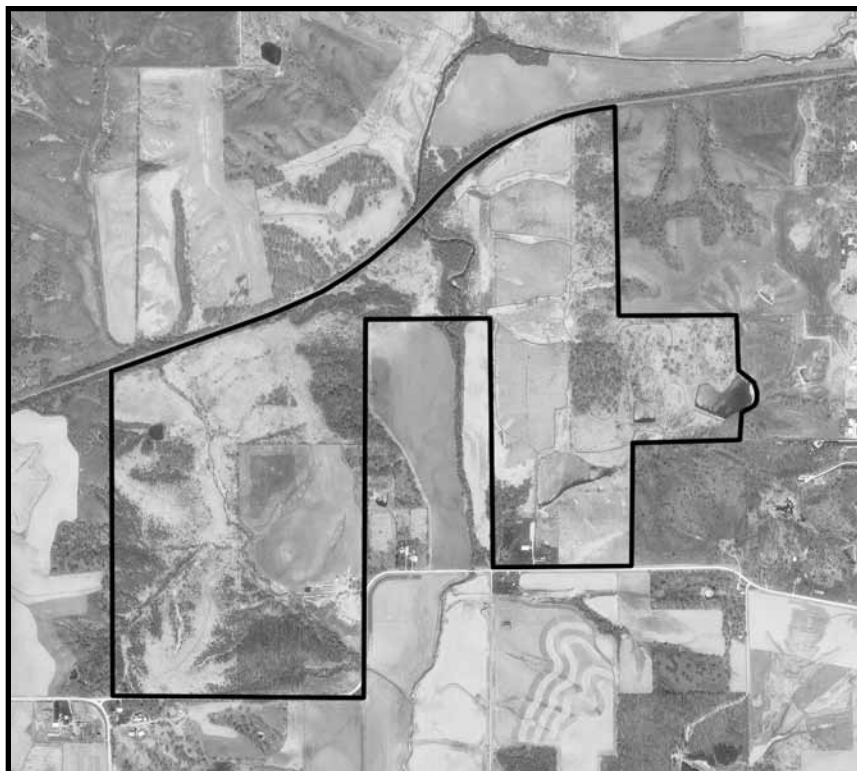


1955

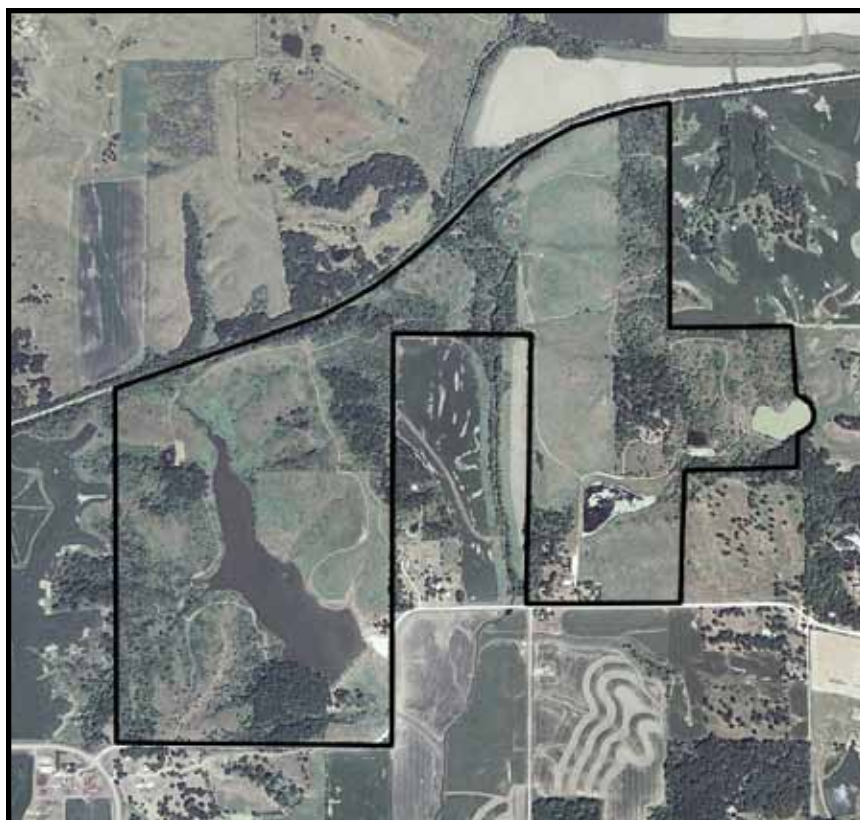


1967

Aerial Photographs of Jacob Krumm Nature Preserve



1990s



2007

