

NORTH FORK & MAQUOKETA RIVER WATER TRAIL



JACKSON COUNTY

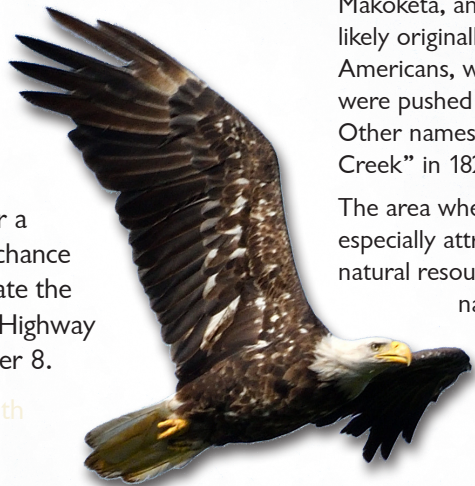
NORTH FORK AND MAQUOKETA RIVERS - HIGH BLUFF COUNTRY

The Maquoketa River water trail passes through high bluffs of the Mississippi Valley on its way eastward to meet the Mississippi River. The bedrock exposed along the water trail is over 400 million years old. Natural caves and springs dot the landscape, known as “Karst topography”, formed from the slow process of seeping groundwater dissolving lime-rich rock. Many of these features can be explored at Maquoketa Caves State Park, 6 miles west of the City of Maquoketa.

A 6-mile stretch between the Joinerville Park and Maquoketa City accesses are not part of the official water trail because there is no portage around the Lakehurst Power Dam.

The North Fork of the Maquoketa highlights the natural wilderness of Iowa, especially along the Ozark Wildlife Area. Paddlers looking for a challenge will welcome a chance to use their skills to navigate the rapids downstream from Highway 61 bridge near Mile Marker 8.

The North Fork and (South



Fork) Maquoketa water trail branches upstream of the confluence near Bridgeport Access are considered “non-meandered” streams in Iowa law. That means that the State of Iowa owns the water flowing through them, but not the land adjacent to or under them. Except at access sites and public areas marked on the map, the land adjacent to and underneath the rivers is private. Please respect private property and do not trespass.

Downstream of the confluence



JACKSON COUNTY

toward the Mississippi River is considered “meandered”, meaning paddlers may access the river bottom and banks of the river, and camp on sandbars without concern of trespass.



1814 map showing the Maquoketa River as “Catfish R.” Inset: closeup of river from 1838 General Land Office survey map.

History of the Expedition Under the Command Of Captains Lewis and Clark, by Lewis, Meriwether, William Clark, Nicholas Biddle, and Paul Allen. Bradford and Inskeep, New York, 1814.

The **Maquoketa River** is a river with many names. Its numerous variations reflect individual understandings and interpretations by the first European explorers and surveyors

including “Macaret, Makoket, Maquokety, Mequokety, Mequochity, Makequeta, Makoketa, and Makoqueta,” finally settling into “Maquoketa”. The name likely originally meant “black bear” in the language of the Miami-Illinois Native Americans, who lived in the area before the Meskwaki, Sauk, and Ho-Chunk were pushed in from the east during the 19th century and adopted the name. Other names for the river that did not take were “Catfish River” in 1814, “Scull Creek” in 1822, and “Great Macoquetois River” in 1838.

The area where the Maquoketa and North Fork Maquoketa rivers join was especially attractive to Native American groups because of the abundance of natural resources. European settlers, also drawn to its resources, noted several native groups camping and living in villages near Bridgeport, and eventual town of Hurstville. These native groups suffered greatly from disease, leading to large burial grounds bordering the river valley.



Natural cave on rock bluff near Buzzard Ridge Wildlife Area



Chimney rock bluff near Millertown Bridge Access

Caves & Bluffs

Limestone bedrock is near the surface on this water trail. Rock outcrops and rock-faced bluffs are scattered along the river, and behind them there is a backdrop of forested hills. Perhaps the most prominent craggy bluff is located around a bend close to the Millertown Bridge Access.

The ancient Silurian dolomites originated as lime in shallow seas, preserving templates of various forms of life as molds or internal casts. The most prevalent fossils include animal tracks, sea lilies, corals, sea sponges, snails, clams, and trilobites. The high rock bluffs on the west end of the Water Trail are capped with cherty limestones and breccias of the La Porte City Formation, forming after the Silurian seas withdrew from the area.

Over time, the slightly acidic groundwater permeated and dissolved the lime-rich rock to form caves, sinkholes, and springs. These karst topographic features are common along the water trail.

Maquoketa River Stretch

Stream Reach: Canton Bridge Access to Millertown Bridge Access (5.8 miles)

This is a very scenic, interesting, and peaceful stretch. Broad leaves of sycamore, sugar maple, and basswood trees often shade the water. The river corridor is a picturesque landscape of forested hills, occasional shoreline rock bluffs, and very little encroachment by cropland, pasture, or dwellings (one house is prominent along the river near the first river bend). A paddler feels ensconced in nature. The forested area river-left is part of the 273-acre Buzzard Ridge Wildlife Area. Large oaks can be seen atop the ridge.

Limestone bedrock is near the surface in this section. Rock outcrops and rock-faced bluffs are scattered along the river, and behind them there is a backdrop of forested hills. Perhaps the most prominent craggy bluff is located around a bend close to the Millerville Bridge Access.

Rock-faced bluffs, cliffs, isolated rocky crags, and fallen chunks of nearly rectangular boulders are of dolomite limestone. This hard, durable rock formation originated from ancient coral reefs that existed 444 to 416 million years ago during the Silurian Age, when what now is Iowa was positioned closer to the equator and under a shallow sea. Fossils of ancient corals and other life can be found. The limestone is very resistant to erosion, and the bluffs and rock faces likely have changed little over hundreds of thousands of years. Recent glacier advances did not override the region, allowing the river to remain largely in its old river channel with well-established drainage creeks. Much of this stretch remained free of large deposits of wind-blown sand and silt, known as loess, and has fewer steep, sandy cut-banks and sandbars compared to stretches farther down the Water Trail. The

rugged landscape with thin soils is less inviting to row crop agriculture, and there are no places on this stretch where crops are planted to the edge of the river.

Pieces of the limestone have fallen into the river over the years. These range from truck-size to toaster-size and smaller. Cracks and pock-holes in limestone have formed over the years, widening during freeze-thaw events. In places, sand and silt settled in these depressions, creating just enough soil for plants to take root. Mosses, grasses, flowers, and even some trees are seen growing from the rocks, while algae, lichens, and liverworts plaster themselves on hard surfaces in their quest for nutrients.



Dan Cohen is Executive Director of the Buchanan County Conservation Board and a freelance writer and photographer. Whether at work or play, Dan enjoys exploring the lands and waters of Iowa and beyond, and sharing a love of nature with others. He and his wife Micki live in rural Independence, Iowa. His descriptions of the river segments in this brochure were taken from reports of his travels in August and September of 2021.

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Scenic view

Photo by Anthony Vorwald



Paddler camping area

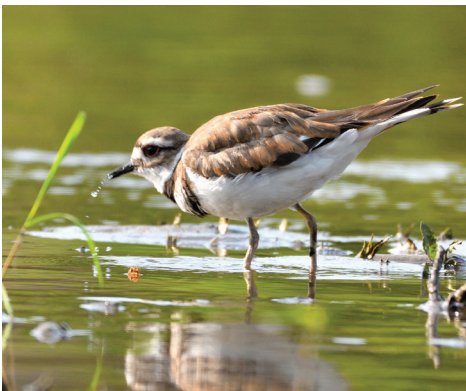
Jackson County Conservation

Buzzard Ridge Wildlife Area

Take in the natural beauty of Northeast Iowa from the Wildlife Area scenic overlook. Other attractions include Goose Rock, a natural bridge, and Lewsen Shelter. Paddlers can access the wildlife area on the left side of the river between the Canton Bridge and Millertown Bridge accesses near River Mile 50. A primitive camping area is directly accessible from the water and leads you to the overlook hiking trail.



Female belted kingfisher with rust belt on the breast



Killdeer drinks

The tall rock walls also are pocked with holes, some of which have widened into caves. A larger cave is easily seen from the river high on a rock face.

Broad leaves of sycamore, sugar maple, and basswood effectively shade the understory, making it difficult to see what grows farther up the forested hillsides. The trees often overhang the riverbank, and paddlers can easily keep to the shade by paddling near the banks and under outstretched branches. The most conspicuous shrub is elderberry, which is in full bloom early in July. Compared to downstream stretches, the riverbanks have gentle slopes and are not very high, with few areas of bank erosion.

Even with low water levels, there are no real sandbars until the final riverbends before Millertown Bridge Access. There are some small mudflats extending from shore, and the shoreline often has mud and clustered or scattered rocks. Many rocks are broken off limestone, while less common are metamorphic rock, deposited by an old (Pre-Illinoian) glacial advance some 500,000 years ago. Also deposited by glacier is the small gravel found mixed with sand in the river bottom. The banks are delightfully natural, with no areas of human-placed riprap or litter.

Paddling is easy, with nice flow and little mid-stream tree debris, riffles, boulders, or other hazards. The occasional overhanging tree limb or area of shallow water on one side of the river can easily be avoided, even by beginning paddlers. Nearly the entire stretch is in a forested corridor, with the only large sandbar at the bend before Millertown. Cattle could be heard near this sandbar, and it appears from the broken-down bank and path through the sandbar to the water that cattle occasionally enter the river.

Bird life is ever-present. Common yellowthroats sing almost nonstop. The churt call of rough-winged swallows is heard as they flit across the water. Bald eagles and vultures are seen in several places. Belted kingfishers swoop across the river, producing their rattling calls as the kayak rouses them from their perches.

Other birds heard or seen include house wrens, a yellow-billed cuckoo, Baltimore orioles, red-winged blackbirds, catbirds, killdeer, wood thrush, eastern towhee, indigo buntings, cardinals, kingbirds, and brown-headed cowbirds. A red-eyed vireo was singing at the Canton Access and a song sparrows sang along one shoreline area.

Nearest the water, sycamores, basswood, walnut, and box elder are common, followed by silver maple, sugar maples, and cottonwoods. A few elms, ash, and hackberry are seen. Willows are absent here. Forested hilltops are distant, but appear to contain some stands of mixed oaks and walnut. The shrub layer near shore is reduced due to the heavy shading

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Cardinal bathes



Jewelweed blooms

The jewelweed is common plant found on moist, semi-shaded areas. The orange blossoms attract hummingbirds, bumblebees, and other pollinators.

Sap collected from the stem and leaves has been used by Native Americans to relieve itching and pain from poison ivy and other irritants.

from sycamores, basswood, and box elder growing at shoreline. Elderberries are the dominant shrub. Some Grey dogwood, wild grape, Virginia creeper, and wild cucumber are seen. Poison ivy was surprisingly absent from shoreline. Other common herbaceous plants visible from the river included jewelweed, wood nettle, and, on the few areas of disturbed riverbanks, Reed's canary grass, stinging nettles, Canada thistle, and field mustard. Ferns, mosses, lichens, and liverworts were common on larger boulders.

Millertown Access is located river-right just before the 30th Avenue bridge. The concrete bridge is not signed, and there are no signs at the access from the water. Paddlers will know they are getting close when they pass sandbars on the bend before the bridge.

Recommended Experience Classification: **Beginner**

Stream Reach: Millertown Bridge Access to Royertown Bridge Access (2.6 miles)

This short stretch continues as a winding ribbon of water among hills, rock outcrops and bluffs, and scattered shoreline boulders. Field mustard and black mustard dominate the eroded river banks. Nearby are some jewelweed and stinging nettles. The two plants growing near each other is convenient, since the liquid in the stems of jewelweed can be used to slow/stop the itch people may experience after touching nettles.

On the west side of the Millertown bridge, dozens of cliff swallows swoop over the water and to their mud nests plastered high on the piers and beneath the road. The birds can be observed with the naked eye, but binoculars (or long camera lens) provide a better look. The spectacle of cliff swallows and their mud nests is repeated on most bridges on the Water Trail, with perhaps a preference for modern concrete bridges compared to old iron bridges.

The first bend in the river leads to an exposed rock-faced bluff that marks the start of the 676-acre Pine Valley Nature Area (river left), managed by Jackson County Conservation Board.

In addition to cliff swallows, rough-winged swallows continue to be present throughout the stretch. Although rarely seen, common yellowthroats make their constant presence known with their singing. Male yellowthroats are prolific singers, with their witchety-witchety-witchety song often repeated more than 100 times per hour, and sometimes as often as 300 times.

Many birds continued to be seen or heard, including bald eagles and vultures. An addition to the list is an ovenbird heard singing from the forest. A deer snorts an alarm and runs through the trees, parting branches and leaves. Dragonflies and damselflies fly about and occasionally land on the kayak and my outstretched legs. These include cobra clubtail dragonflies and azure bluet damselflies, which continue to be present on all stretches of the Water Trail. Others fly by too quickly to identify.

Other species present on this stretch include great blue herons, green herons, woodpeckers, mollusks (or their shells), and many reptiles or amphibians. The relatively few areas of mudflats and sandbars makes it difficult to find shoreline footprints.

Shoreline tree species are similar to those found in the previous stretch, with lots of sycamore, basswood, sugar maple, walnut, and silver maple. A few willows are seen in more open areas. Sycamores continue to be the more impressive shoreline trees. On some recently exposed sandbar/mudflats, silver maple seedlings cover the ground, their reddish color catching one's eye from a distance. Large chunks of limestone appear scattered along the shoreline. Most of these have long been exposed and support growth of mosses, ferns, and even grasses and flowering plants. Stands of mixed oak can be discerned on some distant ridge tops, especially on the Pine Valley Nature Area, but oaks are largely absent closer to the river.

This section ends at a river-left gravel/mud landing at Royertown Bridge Access just upstream of the concrete 50th Avenue Bridge.

Recommended Experience Classification: **Beginner**

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Cliff swallow feeding its young "on the wing".



Northern water snake

These non-venomous snakes enjoy the calm waters and plentiful fish and frogs available along the water trail. This snake is basking in the sun between meals.



Blue Vervain is a native summer prairie plant with bluish-purple flowers commonly found along the streambanks on the River. This beauty is also medicinal, still used to help treat anxiety and depression among other conditions. The flowers also attract a wide variety of pollinators when in bloom during July and August.

Stream Reach: Royertown Bridge Access to Chenelworth Bridge Access (2.3 miles)

The Royertown Bridge is another concrete structure, and cliff swallows are busy tending their nests. This short section continues to take paddlers through a wonderful, mostly forested, landscape. There is one very large sandbar on the bend before heading straight to Chenelworth Bridge Access. Unlike the first two stretches, this stretch is entirely through private property, and the first landmark to be seen is a trailer/cabin along the left shoreline soon after paddling under the bridge.

The shoreline remains mostly forested, and supports species listed in the previous sections. Rough-winged swallows and common yellowthroats remain the most numerous. A wood duck hen leads her ducklings paddling their way along the shoreline. Cabbage butterflies flutter along the shoreline.

Highlines parallel the river (river-right) before Chenelworth Bridge Access and there are some mid-river tree debris to paddle around (no difficulty). The iron bridge with concrete piers is signed from the river, with mileage to the next access.

Shoreline vegetation continues with the same tree species makeup, with sugar maple, basswood, and walnut. However, there now are more silver maple and boxelder. Some of the basswood are flowering. Cottonwood, sycamore, ash, and elm are also seen. The shrub layer continues to feature elderberry and a host of vines, and field mustard covers eroded areas, along with more Reeds canary grass.

Recommended Experience Classification: **Beginner**

Stream Reach: Chenelworth Bridge Access to Morehead Bridge Access (1.9 miles)

This section marks a more noticeable change in landscape as hills and bluffs become distant and flatter agricultural land becomes more apparent. The paddle continues to be scenic with some trees bordering the river. Even though the land is in private ownership, there are no structures or cropland at the river's edge or visible from the water. It is a short section, consisting of a bend and straightaway to Morehead Bridge Access. The last portion parallels a road river-right.

Common yellowthroats and rough-winged swallows continue to be common. Kingbirds, red-winged blackbirds, house wrens, and song sparrows are more numerous. In one open area a dickcissel could be heard.

Midriver tree debris provides a few obstacles just upstream from Morehead Bridge Access, but these are easy to anticipate and paddle around. Perhaps at higher water levels with faster current, these obstacles may be a problem for beginners.

The 74th Street bridge near the access is a more rectangular version of the iron bridge at Chenelworth. Iron bridges were a breakthrough technology for improved river crossings beginning in the 1870s and, although there are continually fewer of them, they certainly were long-lived.

The more open shoreline vegetation favors cottonwoods, and there are some taller cottonwoods along this stretch. Willows and silver maples also are more common. Basswood and boxelder continue to be present. Field mustard and canary grass largely cover the non-forested banks, with a few spots covered with grape vines. Other bank vegetation includes giant ragweed, jewelweed, and nettles.

The Morehead Access is located on the left bank, upstream from the 74th Street bridge. The bridge is signed from the water. The access is a somewhat steep, dirt/gravel carry-down.

Recommended Experience Classification: **Beginner**

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL

Contact Jackson County Conservation
for best paddling conditions.
Phone: (563) 652-3783
Email: jacksonccb@jacksonccb.com



This 6-mile stretch of river is not safe because it offers no formal portage around the dam. The area near the dam is dangerous.



KEY

- Beginner Level
- Intermediate Level
- Advanced Level
- DANGER: do not paddle
- Non Water Trail
- City/Town
- Public Land
- Paved Roadways
- Gravel Roadways
- County Line
- Boat Ramp
- Carry Down Access
- Unimproved Access*
- Camping
- Watercraft Campsite
- Dam
- Information
- Rapids

Paddlers Be Aware:
- This stretch of water trail is not safe for paddlers.

*Accesses marked 'Unimproved':
- Will not have wayfinding signage
- May have inadequate parking
- May be in poor condition

Note: Access numbers correspond to the distance in river miles calculated from the mouth, then rounded up. To figure the approximate distance between two accesses, subtract the lower access number from the higher access number.

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Natural bridge at Maquoketa Caves State Park
Photo by Dan Fox

Maquoketa Caves State Park

The park lies 0.5 mi northeast from the Chenelworth Bridge access. It features a series of 13 trails that lead to 13 caves, a balancing rock, and a natural bridge at this year-around scenic park. Many of the caves are interconnected. Native American groups used the caves prior to 1832 when the Black Hawk Purchase of the land forced them to move westward. Since then, the caves and surrounding region became a popular recreation destination, and a dance pavilion was built in the 1860s. The Park was officially dedicated in 1931 followed by Civilian Conservation Corps (CCC) and Works Progress Act (WPA) trail and shelter projects.

Stream Reach: Morehead Bridge Access to Joinerville Park Access (3.5 miles)

This section of Water Trail pauses at Joinerville Park due to the barrier of the Lakehurst Power Dam located downstream with no good public portage or safe passage. The effect of the Lakehurst Power Dam is felt to a small degree on this stretch. There is a bench in the erosion lines on sandbars indicating the change of water levels affected by impoundment. Nearer to shorelines, the eroded edges of sandbars have a level mudflat. Some sandbars are quite high without having been taken over by seedlings, indicating water levels can be much higher for a sustained period of time – perhaps due to water being held back by the dam.

After leaving Morehead Bridge Access, there is an area of mid-river tree debris. Downstream, a beaver has almost completely chewed around the trunk of a tall, straight tree. Just a bit farther downstream along the right shoreline is the inlet from Bear Creek. Trees begin to more fully occupy the shoreline.

The land is flatter than in the first stretches of the Water Trail, but there still are lots of shoreline trees. A few places are nicely wooded. The first area of corn growing at the edge of a river bank is seen, with bank erosion below the corn stalks. In a couple places cows are seen walking along the shoreline, walking a sandbar, and wading into the river for a drink on a hot day. Killdeer are present on all sandbars.

Even with the absence of bluffs and large rock faces, this remains a nice stretch of scenic river. In wooded sections, kingfishers swoop across the river and rest on overhanging limbs. Bird life continues to be diverse. American redstart can be heard, along with Baltimore orioles and a wood thrush. Common yellowthroats, rough-winged swallows, Eastern kingbirds, and many of the other birds previously mentioned still are heard. Vultures fly high overhead. A male cardinal drinks water from the shoreline. A turtle (probably painted turtle) scurries off a sandbar into the water. Dragonflies and damselflies continue to zip about, and cabbage white butterflies flutter.

Cottonwoods, basswood, silver maple, boxelder, and willows are the most common trees, with fewer sugar maples and sycamores. Previously eroded riverbanks are dominated by the same disturbance plants—mainly field mustard, canary grass, and giant ragweed. Silver maple and willow seedlings occupy sandbars.

The concrete ramp at Joinerville Park Access has areas on either side suitable for takeout, and provides the easiest and cleanest entry/exit since Canton. There is limited public camping, by permission only, downstream of the ramp.

Recommended Experience Classification: **Beginner**



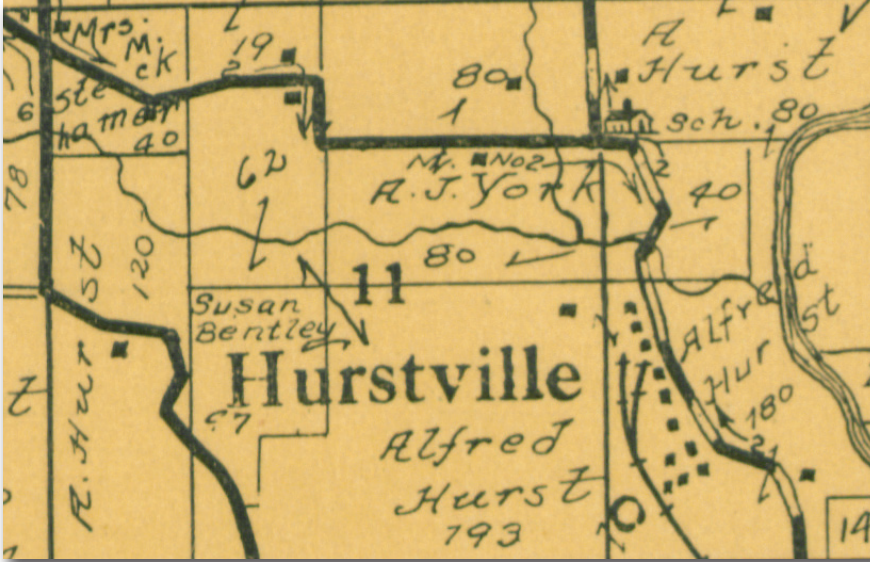
1920s view of the dam
Photo by Frank Cundill



Lakehurst Power Dam

The dam is located between Joinerville and Maquoketa City accesses, but is not part of the water trail because of the lack of safe portage. The 150-ft wide dam was built in 1923 featuring six tainter gates to help regulate water levels and a large concrete fishway (fish ladder), which never allowed fish to pass as intended. While the dam pool is popular with anglers, paddlers on the water trail must exit before reaching the dam.

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



1913 Plat Map of Jackson County showing the location of Hurstville

Hurstville Lime Kilns

Located a mile north of the river confluence lies the remnants of historic Hurstville Lime Kilns. Alfred Hurst built a company in the 1870s to produce powdered lime. This labor intensive and dangerous work involved burning limestone rocks in four large kilns until it broke down into powder. Hurst's business was reputed to have the purest white lime in the nation.

The company town of Hurstville housed Luxenburg immigrants who worked in the quarries and kilns. Eventually the kilns went dormant in the 1920s when construction methods shifted to Portland cement. The kilns were later reconstructed in the 1980s in an extensive volunteer effort.



Two reconstructed lime kilns
From archives of the University of Iowa Office of the State Archaeologist



Giant swallowtail butterfly

Stream Reach: Maquoketa City Access to Bridgeport Bridge Access (3.5 miles)

The Maquoketa River downstream of the City of Maquoketa begins a transition from forested hills and limestone rock bluffs that were so common on the west half of the Water Trail to a river running through flatter agricultural lands and cutting through sand and alluvial soils. It becomes a bit wider and often shallower, still carrying a significant load of silt in its brown-tinted water. There are occasional rock outcrops and rock-faced bluffs along some wooded sections, but the river clearly is on its way through agricultural lands.

The access to the Water Trail is off 5th Street in the City of Maquoketa. There is ample parking and a concrete boat ramp with areas on either side for easy launching of canoes and kayaks.

There are two bridges as the river flows away from town. The first has a traffic or pedestrian rail. The second bridge is Hurstville Road (Business Highway 61).

Wind and ice had some profound influences on the river. Although recent glaciers did not directly impact the Maquoketa River, the ice did have some profound indirect influences. The broad, glacial valleys of the Cedar and Wapsipinicon River formed by the Illinoian Glacier provided a great stock of sand and other deposits. Prevailing northwest winds blew sand over ramps of limestone bedrock to eventually settle in areas of the Maquoketa River Valley. The deposits (called aeolian sand) hold together well and, as the river cuts into it, can form nearly vertical banks – some as high as 20 feet. These cut-banks become more pronounced along stretches of the Water Trail downstream of Maquoketa.

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Beavers are generally nocturnal, but their presence can be detected in downed trees and bank burrows.



Bank swallow at nests

The birds are mostly gray with white breasts and distinct gray “necklaces”. They flutter near their excavated nest holes, perching on eroded sandy slopes, and flying back and forth over the water in search of flying insect prey.



Rock outcrop before Bridgeport

The trip down from Maquoketa begins with a 10-foot tall, nearly vertical bank river-right curving along the first river bend. The end of the curve is armored with riprap. A beaver swims in the calm water. The high bank remains at the right shoreline and a sandbar appears river-left. Sandbars become frequent as the cutting action along one side of the river corresponds to the deposition of sand on the opposite side where the current slows.

In the high bank across from the sandbar is the first of what will prove to be many bank swallow nests. Interspersed with the bank swallows are rough-winged swallows. Most all sandbars have killdeer walking along the sand or fluttering around while making their namesake alarm calls. There are no signs of mussels on the sand or on the river bottom.

In addition to swallows and killdeer, robins, cardinals, catbirds, kingbirds, and red-winged blackbirds are seen or heard on this stretch. Although bird life is quieter compared to the west portions of the Water Trail, common yellowthroats continue to be constant singers. Song sparrows call from their perches on small trees and other erect plants along the open shoreline (photo).

The North Fork of the Maquoketa enters the river on the left shoreline. It appears to be of similar clarity and color. It is narrower compared to the 200-foot wide Maquoketa. Past the confluence, the left shoreline becomes more wooded and there appears to be a small spring entering the river by a rock outcrop. There is less tree diversity than in previous sections, and silver maple now is dominant.

A mid-river island appears and paddlers need to choose whether to go left or right. Left seems the better option, although right may have also worked. There is a sweeper tree along the right shoreline, but plenty of space to avoid it. From the look of the riverbank, the water level is about ten inches lower than it was in the recent past, in which case the island may be partially or totally submerged during normal water conditions.

The river continues to meander, with each curve creating a new, steep cut-bank and corresponding opposite sandbar. Bank swallows occupy nests on another cut-bank before the final riverbend. A rock outcrop juts out at the beginning of a 2,000-foot straightaway to the Bridgeport Bridge Access. As the river straightens, the tall, steep banks give way to gentle slopes with shoreline rocks and boulders. This final approach to Bridgeport has the most diverse shoreline trees on the stretch, with sycamores, hard maple, walnut, cottonwood, and boxelder.

The Bridgeport Bridge Access is on the left well before the Highway 62 bridge. At first it seems that boulders are blocking the access, but upon approach it becomes clear that the boulders have been pushed aside to provide a good landing.

For most of this section, silver maple is the singular dominant tree along wooded shorelines, with scatterings of willows, cottonwood, and basswood. Corn makes its first appearances as a shoreline plant. Open areas of bank erosion continue to be overtaken by giant ragweed, canary grass, and field mustard. The final short stretch of river has a more diverse and denser tree cover, with sycamores, silver maple, walnut, basswood, and boxelder being most common. Several pin and red oaks also are seen.

Recommended Experience Classification: **Beginner**

North Fork Maquoketa River Stretch

Stream Reach: Ozark Bridge Access to Caven Bridge Access (5 miles)

One gets a feeling of wildness while dipping the kayak into the North Fork of the Maquoketa River on a misty morning. Indeed, taking off from Ozark Bridge Access feels like entering a stream in a remote wild area of the Ozarks. Song sparrows are singing and rough-winged swallows dart across the water. The open shoreline has a nice patch of jewelweed with orange flowers in bloom. Further down Japanese hops covers the bank, with some erect poison hemlock over-topping the lush vine. Soon the trees close in and the kayak is guided by the river current through the forested hillsides of the Ozark Wildlife Area. The 323-acre public wildlife area is managed by Jackson County Conservation Board with the scenic North Fork Maquoketa flowing through it.

The water is shallow and swift over a riverbed of rock and stone. Paddlers need to navigate through the shallow riffles, guided by the current through areas of deeper water. The underlying rock is part of the ancient limestone bedrock that exists near the surface. In places the bedrock is exposed as rock-faced bluffs and boulder outcrops.

The hard, durable dolomite limestone originated from ancient coral reefs that existed 444 to 416 million years ago during the Silurian Age, when what now is Iowa was positioned closer to the equator and under a shallow sea. The limestone is very resistant to erosion, and the bluffs and rock faces likely have changed little over hundreds of thousands of years. Recent glacier advances did not override the region, allowing the river to remain largely in its old river channel with well-established drainage tributary creeks. The rugged landscape with thin soils is not suitable for agriculture, but does make for a splendid wildlife area to be enjoyed on foot or by paddle.

Bird songs are many. An eastern towhee sings his signature song, “drink your teeeeee”, and then is spotted in a nearby tree. A few minutes later another song “fire fire, where where, here here”, and the eye-catching blue of an indigo bunting reveals the bird singing from its perch on the twig of a dead tree. Other birds are heard and seen along the route, including turkey vultures, eagles, belted kingfishers, ovenbird, common yellowthroats, wood pewees, song sparrows, eastern kingbirds, spotted sandpipers, yellow-billed cuckoo, cardinals, chickadees, and red-bellied woodpeckers. The presence of woodpeckers also is apparent in a dead tree with numerous holes. Turtles, frogs, mammals, and mussels are not seen on this stretch, although raccoon and deer tracks are seen in mud along the shoreline.

Paddlers may encounter a few riffles along this stretch. Just navigate through the open “V” between the rocks.

Most of this stretch is forested. Trees along the shoreline are diverse, with elm, ash, silver maple, basswood, and even some red and white oaks. Along the banks are a variety of herbaceous plants. Ebony jewelwing damselflies flutter along the shoreline. The river makes a couple of big bends on a path to the east. Coming out of a bend along a high bluff, the wooded corridor opens up for a great view of the forest and river with boulders strewn along the edges.

Caven Bridge can be seen from a distance, with a house nearby river-right. The carry-up trail is earthen with gullies. The bridge is an old iron structure with wood decking, set on cylindrical piers. The muddy access landing is located river-left upstream of the bridge.

Recommended Experience Classification: **Advanced**, due the need to carry boats through rocks, gullies, and muddy landings; and the presence of numerous riffles.



American rubyspot damselfly (Hetaerina americana)



Landmark limestone formation on river-left



Woodpecker tree

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Ebony Jewelwing male (Calopteryx maculate)

Cousins of the dragonfly, Ebony jewelwing damselflies normally hold their wings closed while they perch rather than spread out. Males attract females with complicated aerial courtship dances.



Wood ducks are the most widespread nesting duck in Iowa. They live in swamps and around rivers and ponds where they can make nests out of holes in trees. Their strong claws enable them to grip tree bark and perch on branches.

Stream Reach: Caven Bridge Access to Davison Bridge Access (17 miles)

There is a lot of wildlife noted on this section. Birds include, red-headed woodpeckers, spotted sandpipers, solitary sandpiper, least sandpipers, semipalmated sandpipers, killdeers, house wrens, common yellowthroats, catbirds, red-winged blackbirds, American redstart, Baltimore oriole, robins, cardinals, bald eagles, turkey vultures, and red-tailed hawk. Along the route, several ebony jewelwing damselflies and blue-fronted dancer damselflies hover along the shoreline. Some of the blue-fronted dancers are coupled. Raccoon and deer footprints are seen in the mud. Cicadas and katydids buzz in the trees.

The river is nicely forested, especially along the right shoreline. Trees along the shoreline are a diverse mix of basswood, sugar maple, black walnut, ash, elm, silver maple, and white and red oak. The forest continues along the right shoreline as the left shoreline opens and a long stretch of corn is seen atop the higher bank.

There are few sandbars on this route, making it difficult to find a spot to get out for a pit stop. Eastern tiger swallowtail and red-spotted purple butterflies can be seen on the wet mix of mud, sand, and gravel.

Birds are many and varied, with pileated and other woodpeckers, belted kingfishers, and other woodland species seen or heard along forested areas, to birds of more open country such as red-winged blackbirds and song sparrows. Other birds seen or heard include chickadees, wood ducks, common yellowthroats, song sparrows, ruby-throated hummingbird, green heron, great blue heron, cardinals, eastern kingbirds, cliff swallows, and rough-winged swallows. A wood duck nest box is seen installed on a tree.

Just as the forest subsides, a limestone shelf appears along the left shoreline. A few larger flat rocks overhang the river, appearing to be a great place for a short jump into the water. The rocks continue a short distance before being replaced by a sandy cut-bank.

The river contains a lot of sand, which is seen on sandbars, but also exists mid-river close to the surface. This is a change from the rock bottom in the upper reaches of the river at Ozark Bridge. Here, the water is clear enough to see the sand slowly building as the kayak floats, and paddlers will need to choose their paths to avoid beaching. Depending on the water level, the island may be flooded or vegetated.

Spotted, solitary, least, and semipalmated sandpipers are seen on sandbars and along muddy areas on the shoreline. Killdeers also remain in large numbers, preferring the sandbars.

When passing under the Highway 61 bridges, paddlers can look up and see cliff swallow nests and hear the sound of rushing rapids just a 100 feet downstream. At this water level there are two short stretches of rapids that are moderate to moderately difficult (Class II or III).

Davison Bridge is an iron structure on concrete supports. The access is river-right just before the bridge. The carry-down is rocky. Water at the landing is shallow, so paddlers may have to get out and drift their boats to the landing. There are areas of sand and mud, so look for the sandy footing.

Recommended Experience Classification: **Advanced**, due to length of stretch and potentially dangerous rapids.

Stream Reach: Davison Bridge Access to Bridgeport Bridge Access (9.5 miles)

The final leg of the journey down the North Fork of the Maquoketa to its confluence with the South Fork continues to take paddlers down a river corridor with a diverse mix of woodlands, open areas, and cropland. There are more frequent high cut-banks with corresponding sandbars, some tight bends in the river, and a variety of wildlife observations.

The stretch begins in an open landscape as the river runs straight southeast. A larger sandbar river-right has a thick backdrop of willows, and a goldfinch is on a damp area of sand perhaps getting a drink. The corresponding high cut-bank is covered with wild

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Cabbage white butterflies



Old bridge at Hurstville Branch Creek



View of confluence with Maquoketa River from atop Rockdale Bridge

mustard and canary grass. It is obvious from aerial photos that the river used to go further east before bending south. An old oxbow likely still holds water during normal river levels.

This stretch is quite a change from the Rock bluffs and outcrops of the Ozark Wildlife Area where the Water Trail began. Limestone no longer is near the surface. Although recent glaciers did not directly impact the North Fork Maquoketa River, the ice did have important indirect influences. The broad, glacial valleys of the Cedar and Wapsipinicon rivers formed by the Illinoian Glacier provided a great stock of sand and other deposits. Prevailing northwest winds blew sand over ramps of limestone bedrock to eventually settle in areas of the North Fork Maquoketa River Valley. The deposits (called aeolian sand) hold together well and, as the river cuts into it, can form nearly vertical banks – some as high as 20 feet. These cut-banks are pronounced along this stretch of river.

A portion of old bridge juts partway out from the right shoreline where Hurstville Branch Creek enters the river. This likely was an old railroad bridge, perhaps once used during the production of Hurstville lime early in the 1900s. The abutment on the left shore sits as a bare concrete obelisk. The old bridge is near the JCCB's Hurtsville Interpretive Center and Lime Kilns. The Interpretive Center offers educational displays that interpret natural and historical resources, and is the headquarters office for the Conservation Board. The area around the nature center features a prairie, wetland, and pollinator gardens. The Hurstville Lime Kilns site interprets the processes once used to make mortar and life in a company town (Hurstville) that existed from 1871 until the 1930s. The story of the lime kilns has a connection to the story of limestone bedrock which underlies the Water Trail.

Recommended Experience Classification: **Advanced**, due to the absence of signage and the presence of mid-river sand. Changes **Beginner** classification once you have merged on the Maquoketa River downstream to Bridgeport Access.

Maquoketa River Stretch (Eastern portion)

Stream Reach: Bridgeport Bridge Access to Iron Bridge Access (8.1 miles)

This stretch appears to be popular with paddlers. The first portion of the stretch is more open, often with a few cottonwoods and willows being the only trees. During much of the stretch, paddlers are never far from cropland. However, due to the very tall banks and some buffer plants, crops are rarely seen from the river. The last half of the paddle is more wooded. The most wooded stretch is river-right along the last couple riverbends before Iron Bridge Access. Richardson Timber Preserve is located not far from the river. It is a 20-acre walk-in area managed by Jackson County Conservation Board as an oak-hickory woodland.

An old bridge abutment marks the almost halfway point down the stretch.

The last half of the trip has more diverse woodland, with sycamores, basswood, silver maple, boxelder, walnut, pin oak and other trees. Wild grape, Japanese hops, wood nettles, elderberry, and dogwood grow in the partial shade beneath the arching branches. Rock outcrops have a variety of ferns, liverworts, mosses, and other plants – even some trees - growing upon them. In some places tree roots dangle from eroded banks.

Rocks and boulders from old rip rap now provide a short rapids/riffle. Paddlers with at least intermediate skills will find their open “V” entrance to float through with little difficulty. A rock bar provides a nice place to land, step out, stretch legs, and explore the rocks and shoreline. Re-entering the river, the area becomes more wooded, with some prominent hills.

This is a varied and interesting stretch of river. Common yellowthroats, song sparrow, and rough-winged swallows continue to be present just about everywhere. Kingbirds and song sparrows are common, and mourning doves, catbirds, killdeer, belted kingfishers, crows, turkey vultures, a red-tailed hawk, bald eagles, American redstart, and yellow-billed cuckoo are also heard or seen. Cobra clubtail dragonflies and azure bluet damselflies may ride along with you for a while.

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL

Contact Jackson County Conservation
for best paddling conditions.
Phone: (563) 652-3783
Email: jacksonccb@jacksonccb.com



KEY

- | | | | |
|--|-----------------------|--|---------------------|
| | Beginner Level | | County Line |
| | Intermediate Level | | Boat Ramp |
| | Advanced Level | | Carry Down Access |
| | DANGER: do not paddle | | Unimproved Access* |
| | Non Water Trail | | Camping |
| | City/Town | | Watercraft Campsite |
| | Public Land | | Dam |
| | Paved Roadways | | Information |
| | Gravel Roadways | | Rapids |

Paddlers Be Aware:
- This stretch of water trail is not safe for paddlers.

*Accesses marked 'Unimproved':
- Will not have wayfinding signage
- May have inadequate parking
- May be in poor condition

Note: Access numbers correspond to the distance in river miles calculated from the mouth, then rounded up. To figure the approximate distance between two accesses, subtract the lower access number from the higher access number.

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL



Indigo bunting

As its name implies, the bridge at the access is an iron structure on concrete piers. It comes into view more than 1,000 feet away. It is signed with miles to Spragueville. The access is located just past the bridge river-left.

Recommended Experience Classification: Intermediate, due to occasional mid-river tree debris, and the small rapid/riffle at the old bridge abutment.

Stream Reach: Iron Bridge Access to Spragueville Bridge Access (8.5 miles)

The first few hundred yards are nicely wooded, but soon the more common nature of this section becomes apparent. This is the first section of the Water Trail that is significantly dominated by agricultural lands. Corn grown to the edge of high cut-banks is common, and some stretches of cropland go on for a thousand feet.

The river is broader and often shallow mid-river. Tree debris gathers on some of the underwater sand flats, and paddlers need to choose their routes through and around the obstacles. Sycamores and basswoods no longer hang over the shoreline, leaving few places to paddle in the shade.

The river meanders with alternating areas of high, nearly vertical cut-banks and sandbars. Bank swallows take advantage of the tall, sandy cut-banks and swoop in and out of their nest holes. Other swallow species join in the fly-by ruckus - rough-winged swallows, and occasionally tree swallows and barn swallows. Killdeer are on most sandbars. Other birds include mourning doves, kingbirds, song sparrows, indigo buntings, bald eagles, turkey vultures, red-winged blackbirds, and common yellowthroats. Several belted kingfishers are seen in the few wooded sections of river.

Rock outcrops are rare, so when you see them they make good landmarks. There also is a highline across the river at about the three-fourths mark. The final stretch to Spragueville is nicely wooded.

The Spragueville Access landing cannot be seen from upstream, but is a sharp right turn past the 387th St./Z20 bridge. The bridge is not signed. The landing is good.

Recommended Experience Classification: Intermediate, due to distance involved and occasional mid-river tree debris.

Stream Reach: Spragueville Access to Damon Bridge Access (4.0 miles)

This short section takes paddlers mostly straight northeast, an easy float. Diverse woodland containing cottonwood, walnut, silver maple, basswood, ash, boxelder, and elm, borders the right shoreline, with rocks and boulders along the bank.

Near the beginning of this stretch paddlers will see a huge culvert river-right (six feet in diameter or more). The culvert likely was placed initially to keep drainage water from eroding the railroad line, which has since been converted to a recreational trail. People can access the Jackson County Recreation Trail from 435th Avenue (County Road Z34) at the Damon Bridge access.

Toward the end of the straightaway the forest subsides. An area of corn encroaches the shoreline as the landscape opens up. However, the forest soon picks up again along the right shoreline. Just before the forest takes over, the open riverbank has clusters of sedges which bend with the breeze. A bald eagle is seen roosting in a tree, eastern towhees sing, joined in by song sparrows, common yellowthroats, kingbirds, and other birds.

The Damon Access landing is river-right. Paddlers need to go past the bridge pier to turn into the landing. The landing is muddy, with a good gravel/dirt carry-down.

Streambed condition in this reach: The streambed is mostly sand. Clarity remains at about 6-8 inches. Depth is 2-4 feet.

Recommended Experience Classification: Beginner



Bald eagle perched wings out



Spotted sandpiper on rocks

NORTH FORK AND MAQUOKETA RIVER WATER TRAIL

Jackson County Recreation Trail

This scenic biking trail follows along the water trail near the Spragueville Bridge Access along an abandoned Chicago-Milwaukee Railroad line. Take advantage of the pedal-paddle option. Drop your bike off at the Damon Bridge Access. Put your boat in at Spragueville Access and paddle to your bike. Ride your bike back up to Spragueville Access, and drive back to Damon Access to get your boat.

Stream Reach: Damon Bridge Access to Highway 52 Access (4.5 miles)

This section begins mostly forested, but soon opens up. The practice of farmers planting crops adjacent to riverbanks on stretches of the Water Trail closer to the Mississippi River occurs more often than in the western half due, in part, to limestone bedrock no longer being present near the surface. The slope of the bedrock has dipped farther underground, and deposits of sand and silt overlaying the rock are deeper. During past glacial retreats, the Mississippi River has swelled with glacial runoff, becoming much broader and deeper, with water backing up into the Maquoketa river corridor. The enlarged Mississippi caused Maquoketa waters to slow or even back up for miles, allowing sand and silt to settle.

A prominent sycamore tree indicates the end of the route is near. You will see the Highway 52 bridge comes into view early, however this is misleading because the Highway 52 Access is actually about 2,000 feet before the bridge, on the left shoreline.

In all reaches of the Water Trail it is likely people fish for smallmouth bass, walleye, channel catfish, and other game fish regularly found in the waters of Iowa's interior rivers. The types of fish one may catch increases in this stretch, as some fish move a few miles up the Maquoketa from the Mississippi River.

Recommended Experience Classification: **Beginner**

BE SAFE OUT THERE!

Follow these safety TIPS to keep your trip enjoyable:

- Pack all essentials in waterproof bags.
- Check the river water levels and currents before each trip.
- Know the weather forecast, including areas upstream, and stay aware of the weather on your trip.
- Make sure someone knows your planned entry and exit points and estimated times.
- Always wear a properly-fit life jacket.
- Expect overhanging trees, logjams, and other obstacles, such as bridge abutments or big rocks. If paddling around them is not possible, get out and portage around them. Grabbing onto tree branches may capsize your paddlecraft.
- Always portage around lowhead dams. Surface appearance can be deceiving. Undercurrents can be strong enough for drowning.
- If you capsize, remain on the upstream side of your boat to prevent being pinned.
- Dress appropriately for weather conditions (including air and water temperatures), and avoid weather and water conditions beyond your skill level.

KNOW YOUR SKILL LEVEL!

- **BEGINNER:** Segments are generally less than six miles. Hazards are few and easy to avoid in normally slow-moving currents. Users can easily access these segments from parking areas, and will not need to portage, except to walk a boat around some shallow riffles or to make going around an obstacle easier.
- **INTERMEDIATE:** Segments are generally less than nine miles. Users should be able to recognize and avoid hazards in moderate river flow. The need to portage is rare, but users should be able and willing to carry boats and gear a short distance. Access to the river may involve a short portage, and the launch or take-out may be a bit difficult.
- **ADVANCED:** Segments may exceed nine miles. Hazards are likely and often occur in fast-moving water. The need to portage may be frequent or may involve carrying boats and gear a long distance. Access to the river may involve a portage, and the launch or take-out may be from steeper banks or faster moving water.

BEHAVE AS A GUEST!

- Respect private property. Only use public lands and access points.
- Be considerate of others in your group and on the banks.
- Give anglers a wide berth.
- Never change clothes in public view.
- Never litter. Always pack out trash.
- Do not disturb wildlife.

For more information, visit:

www.iowadnr.gov/Things-to-Do/Canoeing-Kayaking/How-to-Paddle

Jackson County Conservation

563-652-3783

jacksonccb@jacksonccb.com

www.jacksonccb.com/home

Maquoketa Caves State Park

563-652-5833

Maquoketa@dnr.iowa.gov

Maquoketa River Rental (rents tubes, canoes & kayaks)

563-357-4489



All photographs are attributed to Dan Cohen unless otherwise noted.

