Wisconsin Woodlands 360 Virtual Tour Script

Horicon Marsh

Horicon Marsh Video

Sandhill Cranes Video

[Exhibit Label]

Horicon Marsh is a 13,000 hectare (about 32,000 acre) wetland in east-central Wisconsin. The marsh began as a lake, similar to present day Lake Winnebago, formed when melt water of retreating glaciers pooled behind a moraine (a hill of rocks and sediment formed at the edge of a glacier). Over time, the Rock River eroded through the moraine, lowering the water levels and leaving a marshy wetland and shallow lake.

American Indians have lived along the marsh for thousands of years. Many modern highways in the area (for example, Highways 33 and 26, and County Highways A and Z) follow the routes that were built and used by Native people for centuries.

In 1846, Euro-American settler-colonists built a dam at the outflow of the marsh for a saw and grist mill. This dam created the largest artificial lake in the world (at that time). The present day City of Horicon grew up around the dam and mill and the flooded marsh was called Lake Horicon. The dam was controversial, however, because it caused fluctuating water levels and flooded nearby upland farms. In 1869 the dam was removed, draining Lake Horicon and again forming Horicon Marsh.

As either a lake or marsh, the area was excellent habitat for fish and waterfowl and it became a major attraction for commercial and sport hunting and fishing. Wagon loads of fish from the lake were sold to markets in Milwaukee and Chicago and hunting clubs leased acreage for private recreation. The unregulated harvesting gradually devastated the bird and fish populations.

In the early 1900s, land developers cut miles of ecologically damaging drainage ditches through the marsh (many of which still exist) to lower the water table. They then sold the marshy ground for farming and promised exaggerated crop yields. Most of these farms were too wet and failed to successfully grow the promised crops. Finally, in 1933, a large wildfire burned much of the soil and dried vegetation.

Starting in the 1920s, conservation-minded individuals and groups pressed the state legislature to restore the marsh. The 1927 Horicon Marsh Wildlife Refuge Bill provided for the acquisition of those failed farmlands and the construction of a new dam to maintain constant water levels and restore the marsh habitat.

Today, Horicon Marsh serves as a home or resting area for millions of migrating waterfowl and its rich natural resources are maintained for public use by the federal and state governments as the Horicon National Wildlife Refuge and Horicon Marsh State Wildlife Area.

The Woodlands

Humans have used Wisconsin plants to survive and thrive for many thousands of years. The study of how humans use native plants is called ethnobotany.

Learn more about MPM's Ethnobotany collection

[Exhibit Label]

The deciduous broadleaf forest biome (forests with trees that shed their leaves in autumn) covers most of eastern North America. The deciduous forest transitions into the coniferous boreal forest biome (forest with trees that have needle-like leaves and cones) to the north and into the prairie and savanna biome of central North America to the west. Wisconsin lies at a convergence point among these three continental biomes with mixed coniferous and deciduous forests in the north and east, and prairies and savannas in the south and west.

Forests are incredibly important. Woodland plants, animals and landscapes provide food, shelter and well-being for humans, and forests are an integral part of the Earth's oxygen regeneration system, and naturally cool and purify the water of lakes and rivers. Many bird and mammal species can only live in large, connected forest areas. When woodlands are destroyed in a haphazard manner, larger areas of forest often become fragmented (formed into disconnected patches). As forests become fragmented, the species requiring large forests become rare and some have even gone extinct.

Early Euro-American colonists visiting what is now Wisconsin would have encountered over 100 million hectares (about 400,000 square miles) of forested land variously managed by Native Peoples. Management techniques included tree girdling (cutting away a ring of bark from trees to stop growth) and felling, and prescribed burning (intentionally setting fires to clear undergrowth and open the canopy) were in widespread use. Native Peoples used trees and wood products for constructing buildings and boats, to make tools for cooking, cleaning, farming and hunting, create toys, artwork and crafts, as firewood, and to make items for use in spiritual life.

Sumac-Drugstore of the Woodland Indians

The roots, bark, foliage and fruit of the smooth and staghorn sumacs were used medicinally for a wide variety of ailments by the Woodland Indians. The inner bark was also used for tanning and as a dye. The ripe berries, mixed with maple sugar, provided the Indians and Pioneers with a refreshing "lemonade."

Shagbark Hickory

Shagbark hickory was a valuable tree to the Native Peoples and early settlers. Its wood, tough and elastic, provided fuel of intense heat and was used for weapons and tools now made of iron and steel. The nuts were also an important article of food. Oil pressed or boiled from the nut meat could be used as a shortening. Hickory-smoked fish and meats were as highly esteemed in early days as they are today.

Information has been updated from original label

The Moist Sandy Beach Prairie

Straddling the Wisconsin-Illinois border, the Chiwaukee Prairie occupies a strip of land about one mile wide along the shore of Lake Michigan. Unlike that of other Wisconsin prairies, the soil here is more sandy and wet and supports slightly different vegetation. From mid-May to the second week of June, prairie wildflowers lend spectacular color. This exhibit shows the Shooting-star, Bird-foot Violet, Hoary Puccoon and Lousewort. Less showy, but numerous, are Yellow-Star Grass and Blue-eyed Grass.

The Box Turtle, formerly common in southeastern Wisconsin, is rarely seen here today. Its food consists of plants and animal material.

Several species of birds frequently visit the area. The Meadowlark is readily recognized by its familiar song. The Lark Sparrow of the finch family, a seed eater of the open fields, breeds throughout the Mississippi valley.

Insect visitors include two day-flying sphinx moths, the Snowberry Clearwing (right) and the Nessus Sphinx, a queen Bumble Bee, and the Buckeye Butterfly.

Prairie Plants

The prairie plants in this exhibit are artificial, made by Museum exhibit artists. You can make your own plant art by preserving real plants in a plant press. Learn How.

[Exhibit Label]

Prairies were once scattered over the southern part of Wisconsin, from Barnes Prairie in Racine County to Starr Prairie in St. Croix County. They were the northeast boundary of the American prairies. Today relatively few original prairie plants remain because of intensive agriculture.

From mid-May through September the undisturbed prairie displays a continuous succession of wildflowers. While colorful in late May, the prairie is most spectacular in August and early September when showy legumes, composites, and grasses are a sea of blazing color.

A Wisconsin Fen

Bees are important to human life. They pollinate the fruits and vegetables we eat every day. However, many native bees have a specific relationship with one or two plants and a specific soil type they need to survive. As humans have changed the landscape, it's changed the bee species that live there, because their necessary plants and soils have gone. MPM's bee collection has been used by scientists around the world to learn more about keeping bee populations healthy. MPM's Bumble Bee Collections

[Exhibit Label] (Spring)

Fens are a special type of groundwater-fed wetland found throughout Wisconsin. Fens differ from other wetlands (like bogs) by having water chemistry that is neutral or basic, also called alkaline, versus acidic.

In May, fens are impressive for their diversity of plants and animals. The Small White Lady's-slipper is a species of orchid with an inflated white petal (the "slipper") and a yellow flower column often with red speckling. An imperiled species, it and many other orchids are protected by

law in Wisconsin. Other flowers of the fen are the Downy Phlox, Yellow Stargrass, and the Small Yellow Lady's-slipper.

The attractive yellow and black Dog-Face Butterfly is not uncommon in southern Wisconsin fens. The Baltimore Butterfly is another inhabitant of the low-lying marshes. Worker Bumble Bees are essential in the pollinating of the lady's-slippers.

The Upland Sandpiper, once one of the most common birds of the original prairie, today frequents open meadows, pastures, grain fields, and waste areas. Its food consists of a variety of worms, weevils, bugs and flies and numerous noxious weed seeds.

An Upland Meadow in Wisconsin

(Late Spring)

Surrounded by black oak woods, this meadow is an area of moist sandy soil covered with brilliantly colored wildflowers and forming the natural home for abundant wildlife. Grasses and sedges form the dominant plant growth, but in late May or early June these are lost in the blaze of color of the Indian Paint-brush and the contrasting Blue Lupine. The Indian Paint-brush is parasitic on the roots of grasses and other plants.

The Red-admiral and Silver-spotted Fritillary Butterflies are attracted to flowers which grow in open woodland meadows.

The Fox Snake is distributed throughout the state. It is one of the most beneficial snakes, feeding on rodents. Fox snakes are of friendly temperament. They are not poisonous, although they are sometimes erroneously called "copperheads" because of their coloration.

The Indigo Bunting, a member of the finch family, is a common summer resident in Wisconsin. The male's brilliant blue iridescent spring plumage is most striking, and a contrast to the mousy nondescript color of the female. The bulk of its diet consists of weed and grain seeds, although it also feeds on insects in season.

Oak Barrens in Wisconsin

(Summer)

Oak barrens are common in the southwestern half of Wisconsin. The Prickly-pear Cactus, rare in Wisconsin, occurs in the "Driftless Area," or the unglaciated portion of Wisconsin. It is found on sandy flats and on slopes of bluffs in the Wisconsin River valley and its tributary valleys from Prairie du Chien north to Juneau and Adams counties. The Prickly-pear is a perennial and blooms in early July. It is one of two species of cacti native to Wisconsin.

A large Robber Fly and two types of Tiger Beetles, common inhabitants of sandy areas, prey upon other insects. A small Meadow Fritillary Butterfly hovers over the flowers. A Greenbottle Fly is about to be captured by a skink.

Two of Wisconsin's lizards, the Six-lined Race Runner and the Five-lined or Blue-tailed Skin are inhabitants of the oak barrens. Both feed on insects.

After late May some Timber Rattlesnakes move from the hills and talus slopes into the oak barrens

in search of food.

Oak Openings in Wisconsin

(Early Spring)

On the Kettle Moraine where prairie and forest meet, a characteristic community known as an "oak opening" prevails. Here Bur and other oaks form a thin forest. The gravelly nature of the soil causes a thin growth of prairie species. One of the earliest spring flowers in such areas is the Pasque-flower, a perennial. It blooms in April along with the Early Crowfoot or Buttercup.

A Painted-lady Butterfly, which overwinters as an adult, is on the wing in early spring.

A Thirteen-lined Ground Squirrel or "Gopher," a member of the rodent family, occurs throughout most of Wisconsin. Its food consists mainly of wild plants and insects, especially grasshoppers.

The Forest Margin

The Harbinger-of-spring is a native Wisconsin plant that was thought to be extinct, but has been rediscovered.

Harbinger of Spring

[Exhibit Label]

(Early Spring)

Forests cover much of Wisconsin. In early spring, when snow is melting, plant and animal life awakens in the forest. From February until April, Skunk-cabbage is a perennial, and individual plants may live to be hundreds of years old.

Bluebottle Flies as well as other insects of early spring are drawn to the repugnant odor of Skunk-cabbage and are instrumental in pollinating its flowers. Stoneflies, which spend their early nymphal life in the water, often appear as adults in late winter or very early spring. Water Striders are on the move as soon as the ice disappears.

One of the tailed amphibians, the harmless Tiger Salamander, is well known throughout Wisconsin. At night it migrates from one pool to another, feeding on insects. The American Toad deposits its eggs in ponds. After a six to seven week tadpole stage the young toads migrate into cultivated fields and gardens in search of food.

Wilson's Snipe (Jack Snipe to the hunter) is common in low wet meadows, on mud flats, and in marshes over most of Wisconsin. Its long, sensitive, tweezer-like bill is adapted to probing for worms and various crustaceans which form its main diet.

The Beech-Maple-Basswood Forest in Wisconsin

(Spring)

The beech-maple-basswood forest is an important deciduous or hardwood forest type in southeastern Wisconsin. A significant feature of such forests is the loss of leaves in autumn and the production of new foliage in spring. Before the trees fully "leaf out," the rich brown forest sails

support a profuse growth of showy wildflowers. Favorites among these are the Large White Trillium (all trilliums are protected by law in Wisconsin), Blue Phlox, and the small pink-=flowered Spring-beauty. Less showy, but of great interest, is the Jack-in-the-Pulpit.

The brilliant green Six-spotted Tiger Beetle preys on other insects as does the Green Caterpillar Hunter, one of the large ground beetles. Its potential victim, the Banded Woolybear, winters over as a caterpillar. Found in or on rotting logs is the Eyed Click Beetle and a relative of the insects, the Millipede, or "Thousand-legged-worm." Cocoons of the beautiful Polyphemus Moth often fall to the forest floor, but the large rust-colored cocoon of the Cecropia moth, not yet emerged, remains firmly attached to the twigs of an overhanging shrub. Mourning Cloak Butterflies and queen Bumble Bees survive the winter and feed on the nectar of the flowers.

The Gray Tree Frog, which feeds on insects, is quite often nocturnal, but on damp dark days it comes out to trill, especially at eventide. The Wood Turtle feeds on algae, insect larvae and berries. The small Smooth Green Snake is harmless and feeds on insects, snails, and salamanders.

The Oven Bird is named for its nest which resembles an old-fashioned Dutch oven. Its call "teacher, teacher," is distinctive. It is a common nester in Wisconsin, and its diet, chiefly of insects, makes it very beneficial to the farmer. Wilson's Warbler (perched on a twig) usually frequents the under-story of open woodlands during its spring migration northward. It feeds not only on crawling insects but also catches insects on the wing.

Birds of Wisconsin

This wall represents birds found in Wisconsin year-round and also those that migrate to and from our state. Migration is when animals move from one region to another based on seasonal changes. Lights next to the birds depict whether a bird is present during a specific time. These images show Wisconsin's bird populations during a typical March.

Birds of Wisconsin Video

Intrigued by the variety of birds in Wisconsin? Watch our Birding 101 video to learn how you can become a bird-watching expert!

Birding 101 Video

Red Wing Black Bird Video

What's missing? Occasionally, animals go extinct, either due to natural factors, or due to human interference. Passenger pigeons once darkened the sky with their huge populations, but are now extinct due to hunting. <u>Passenger Pigeon in MPM's Collection</u>

How do scientists know which animals are common and which are rare? By performing surveys of wildlife. One type of survey is a BioBlitz. <u>Learn more about BioBlitz in this video</u>, then <u>download</u> the PDF to perform your own.

Want to be a part of the next great discovery? Explore the many ways you can be a part of <u>citizen</u> <u>science</u>.

[Exhibit Label]

This display depicts 328 species of birds found in Wisconsin. Many are quite common, while other species range from uncommon to rare or accidental.

Space did not allow the display of all species in mounted form, so a series of colored plates and some mounted specimens were used.

The yellow portion of the map covers an area with a radius of about thirty miles from the museum.

In this exhibit, lights indicate the average presence of birds found in this area at a given time. Arbitrarily, this time is divided into twelve units or one unit for each month of the year. If the light is out, the bird has left the area, either to the north or south depending on migratory season.

Birds so rarely observed that their occurrence within this area is supposed to be accidental, or birds commonly found in other areas of the state but rarely if at all in the Milwaukee region do not have light indicators.

The 85 colored plates were taken from the book "Birds of Wisconsin." Four original paintings by Owen J. Gromme are also shown.

Mounted specimens representative of the various families are shown with the plates.

Bird plates were donated through the courtesy of the Mueller Engraving and the Moebius Printing companies.

White Tailed Deer Diorama

White Tailed Deer Video

Wisconsin Fields and Woods

[Exhibit Label]

(Red-tailed Hawk)

The Red-tailed Hawk is commonly seen throughout Wisconsin, soaring above fields in search of prey. For nesting, however, it seeks out a tall tree in a wooded tract where it constructs a brushy platform of sticks. If not disturbed, nesting Red-tails will return to the same site year after year, annually adding more sticks which in time form a bulky structure.

Three or four bluish white and sometimes brown spotted eggs are laid in early April. When hatched, the young remain in the nest until fully fledged. The Red-tailed Hawk breeds throughout easter North America and ranges as far south as eastern Mexico.

These hawks are most beneficial birds chiefly hunting injurious rodents. All hawks are protected

by law in Wisconsin.

Wisconsin Riverways

Peregrine Falcon Video

(Peregrine Falcon)

Cliffs and crags along waterways, such as this sandstone bluff on the Wisconsin River, are the preferred nesting sites of the Peregrine Falcon.

Falcons are the elite of the birds of prey and for centuries were trained by humans for hunting because of their audacity, skill, and speed. Their power of flight is remarkable. At speeds in excess of 175 miles per hour they can overtake and bring to earth birds and catch mammals considerably larger than themselves.

Extremely powerful talons, sharply notched bill, and long pointed wing tips distinguish them from other hawks. Their call is rather harsh, shrill.

Both sexes are similarly marked; however this female, as in the case of other species in this family, is considerably larger than the male.

The young, about to feed on a freshly captured Blue Jay, will remain in the nest until fully fledged. In September or early October they will join the adults on their journey southward, migrating as far as southern Central America.

Although various small birds form their principal diet, pigeons, groups, and ducks up to the size of grown mallards are frequently taken. However, because their numbers are so few, falcons cannot be considered detrimental to song and game bird populations.

Waterways of Wisconsin

(Black-crowned Night Heron)

Wisconsin's marshes, rivers, and lake shores are home to the Black-crowned Night Heron. While it is a fairly common summer resident of Wisconsin, it ranges as far north as southern Canada. As the name indicates, this medium-sized, rather plump heron, most frequently feeds from dusk well into the night. It is more often heard uttering characteristic "kwaks" than seen.

Adults are easily recognized by their whitish underparts and contrasting glossy greenish-black back and crown. Several long, tapering quill-like white plumes on the crown and brilliant red eyes characterize this striking bird.

During the breeding season these herons often form colonies of several hundred nesting birds such as this rookery along Lake Michigan. They arrive in Wisconsin in April, and by mid-June the young are fairly well developed. The awkward young often tumble from nests or find themselves in a precarious position while begging to be fed. Their food is primarily non-game fishes, crustaceans, amphibians, and some insects.

Wisconsin Lake Country

(Common Loon)

The Wisconsin glacier of 25,000 years ago formed numerous fir, spruce, and birch bordered lakes where today the wild call of the loon can be heard during breeding season.

The loon is easily recognized in summer by its velvety green head and black and white evenly checkered back. On the more isolated lakes in May, it deposits two dark brown eggs in a slightly hollowed mass of floating vegetation. The downy young, hatched in June, leave the nest within hours and are perfectly at home on the water. The nest here is surrounded by aquatic plants such as the newly emerging cattail, wild calla in flower, and a floating mass of tiny individual plants called duckweed.

This exceptional diver is superbly adapted to aquatic life but moves about on land with great difficulty. Its large webbed feet, streamlined body, and sharply pointed bill enable it to overtake the swift smaller fish which are usually of little economic importance.

Beaver Lodge

Beaver Lodge Video

Mussels are an important part of Wisconsin's ecosystem. They provide food for dozens of animals, and also help filter lakes and rivers to keep the water healthy. MPM scientists research mussels to learn more about our State. Learn about our collections here.

Mathiak collection

[Exhibit Label]

Beaver have great ability to build sturdy dams of mud and sticks which may impound acres of water. Sediments accumulating in such a pond eventually force the beaver colony to move to another location, leaving a rich meadow in the former pond site.

A dome-shaped lodge made of sticks and earth varies in height from two to six feet. Entrances are underwater and elad to a well-ventilated den. The young, born in spring, number from two to eight kits.

Beavers are the largest of North American rodents and attain weights approaching one hundred pounds. They are heavily built with short legs, fully webbed hind feet, and a flat scaly tail that acts as a rudder when swimming and as a warning signal of danger when slapped on the water.

The front teeth are chisel-shaped and extremely effective in gnawing through trees thirty inches in diameter.

Food is preferably willow and aspen and stored underwater near the lodge.

Once found throughout North America, beavers are now confined to the forested areas little frequented by people.

The Quest for Beaver

[Exhibit Label]

The Dutch and the English were originally involved in the fur trade in the New York region. The

English traders ultimately pushed westward toward the Great Lakes, where they encountered the already established French traders. The French had entered the region from the north via the St. Lawrence River and from the south up the Mississippi River.

In 1670, the Hudson's Bay Company was established, controlling by Royal Grant the undefined region of Hudson Bay and the territory to the West and South. This company later expanded its scope and presently is one of Canada's best known business establishments.

Shortly after the Revolution several American fur-trade companies were established. Their conflicts with the Hudson's Bay Company were ultimately resolved, but the relative importance of the fur trade gradually declined.

The availability of beaver in the new land quickly established a profitable fur trade. The constantly accelerating demand, however, resulted in the near-extinction of beaver in the original area. Accordingly, traders, both Native American and European, penetrated farther and farther into the interior in search of this valuable peltry.

The "beaver rush" resulted in conflict among American Indian Nations vying to trade for European goods as European conflicts spilled over into their Western Hemisphere colonies and traders.

Prior to the twentieth century, beaver pelts were not intended for use in making fur coats. The fur was highly desired for felt in the making of the famous beaver hats.

The formula for preparing the felt called for three-quarters "greasy" beaver (called by the French castor gras) and one-quarter "dry beaver" (castor sec). Castor gras came from a beaver robe that had been used until the long, undesirable guard hair was worn off. The fur of the unused fresh pelt (castor sec) was mixed with the worn, greasy fur in the proper proportions and proved ideal for a high quality felt.

Hat makers produced a popular and valuable commodity. So expensive were these hats that trade-in allowances were accepted on new ones. The trade-in, slightly altered, was then sold in Spain. Ultimately it was traded-in again, altered and sold in Lisbon where small hats were in style. When the hats were worn out by the Portuguese they were finally traded for ivory on the African Coast. Thus, a Hudson Bay beaver could conceivably end up in Timbuktu. Today beaver is used both for felt and coats.

Information has been updated from the original label

Wisconsin Fishes

Wisconsin with its varied and abundant water resources boasts about 140 species of fish. Before the influx of settlers, Native Peoples used these aqueous inhabitants for food as a part of their diet with rice and woodland game. The invasion of settlers brought ecological disruption. Dams, fishing fleets and pollution caused depletion in the abundance of fish and prevented their recovery by changing the environment.

Four convenient categories describe Wisconsin fish: rough fish, bait minnows, food fish, and game fish.

Rough fish are considered harmful to the economically more valuable game and food fish. They

include Dogfish, Gar, Suckers, Goldfish, Buffalo, and Carp. Carp were introduced into Wisconsin in 1884. Originally they were considered food and game fish; considerable numbers are still used as food.

Bait minnows include not only the real minnows such as shiners, but also any other small or young fish, such as sculpins, darters, topminnows, or trout-perch.

Food fish are of commercial value. Until recently food fish included the Lake Trout, Whitefish, Lake Chub, Cisco and Bloaters. As a result of overfishing, disruption of spawning streams by dams and pollution, and parasitism by the Sea Lamprey, populations of the original food fish are practically gone. The recent invasion of the Alewife may prevent their return.

Game fish usually include the fish shown in this case. Most of these are noted for the sport involved in catching them and also for their edibility. Some game fish were brought into Wisconsin; these include the Brown and Rainbow Trouts which were introduced in the 1880's.

Information has been updated from the original label

Otter and Brook Trout

Like the mussels in the beaver lodge, crustaceans such as Wisconsin's native crayfish are extremely important to understand the health of our natural resources. MPM has done extensive research on crustaceans of Wisconsin, including publishing a book. <u>Learn more about our crustacean research</u>.