# Field Guide & Journal

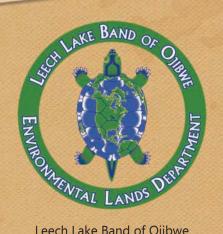


Use this guide to explore the wonderful creatures living on our tribal lands. Keep in mind: Always use safety first;

- Never approach a wild animal;
- Never hinder the natural environment;
- Never leave behind trash or garbage; • Never eat wild fruit, plants or herbs if you do not know EXACTLY what they are.

Download this book online at: www.llojibwe.org/drm/fieldguide.html

Only when the last tree has been cut down, the last river poisoned and the last fish been caught will we realize money cannot be eaten. - Cree Indian Proverb



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#### 2015 Leech Lake Reservation Field Guide and Journal

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You can find this publication on our website at: www.llojibwe.org/drm/fieldguide.html



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#### Credits

Project Conception and Graphic Design by **Cari Tabor**; Species Information & Compilation, and Ojibwe Name reference by **Alyssa Myhrer**; Technical Assistance by **Brenda Pence**; Species Occurrence information and Threatened, Endangered, Sensitive information Provided by **Steve Mortensen**, Fish, Wildlife and Plant Resources Program Director. Map provided by **Ryan Anderson**.

**Henderson, Bobby** (Photographer). 2014-2015. Monarch Caterpillar, p 58; Common Milkweed, p 90; Fireweed (Right), p 92.

**Mortensen, Steve** (Photographer). 2014-2015. Fritillary Butterfly, p 55; Eastern Tiger Swallowtail (Left), p 56; Porcupine, p 64; Fisher, p 65; Showy Lady's Slipper, p 87 & 100 (Right); Wild Rice (2), p 104.

Myhrer, Alyssa (Photographer). 2014-2015. Salamander, p 8; Frog Eggs, p 9; American Toad, p 10; Common Garter Snake, p 12; Common Snapping Turtle, p 14; Gray Tree Frog (2), p 16; Northern Leopard Frog, p 18; Painted Turtle, p 20; American White Pelican (2), p 24; Bald Eagle, p 26; Black-capped Chickadee, p 28; Common Loon, p 30; Great Gray Owl (2), p 32; Mallard, p 34; Osprey, p 36; Pileated Woodpecker, p 38; Ruby-throated Hummingbird, p 40; Ruffed Grouse, p 42; Sunfish, p 44; Black Crappie, p 46; Northern Pike, p 48; Walleye, p 50; White Sucker (2), p 52; Dragonfly, p 54; Eastern Swallowtail Puddling, p 55; Eastern Tiger Swallowtail (Right), p 56; Monarch Butterfly, p 58; Orange-belted Bumblebee, p 60; Virginia Ctenucha Moth, p 62; Chipmunk, p 65; Bear Family, p 65; American Black Bear (2), p 66; Eastern Cottontail Rabbit, p 68; Gray Wolf, p 70; Mink, p 72; Muskrat, p 74; Northern River Otter, p 76; Porcupine, p 78; Raccoon, p 80; Red Fox, p 82; White-tailed Deer (2), p 84; Black-eyed Susan (2), p 88; Fireweed (Left), p 92; Lowbush Blueberry, p 94; Marsh Marigold (2), p 87 & 96; Red Columbine (2), p 98; Showy Lady's Slipper (Left), p 100; Water Lily (2), p 102; Balsam Fir, p 108; Eastern White Pine, p 110; Jack Pine, p 112; Northern Red Oak, p 114; Northern White Cedar, p 116; Paper Birch, p 118; Quaking Aspen, p 120; Red Maple, p 122; Red Pine, p 124; White Spruce, p 126.

**Myhrer, Alyssa** (Illustrator). 2015. Frog Lifecycle, p 9; Egg Nests, p 23; Fish Parts, p 45; Butterfly Parts, p 54; American Black Bear Tracks, p 66; Eastern Cottontail Rabbit Tracks, p 68; Gray Wolf Tracks, p 70; Mink Tracks, p 72; Muskrat, p 74; Northern River Otter Tracks, p 76; Porcupine Tracks, p 78; Raccoon Tracks, p 80; Red Fox Tracks, p 82; White-tailed Deer, p 84; Flower Parts, p 87; Tree Leaf Parts, p 107.

Ross, Cecilia (Illustrator). 2015. Frog Catching Fly, p 9; Red Snake, p 12; Happy Frog, p 18; Painted Turtle, p 20; Red Bird, p 22; Red Bird With Egg, p 22; Owl In Tree, p 32; Red Fish Family, p 48; Red Butterfly, p 54; 2 Red Bugs, p 54; Black-eyed Susan, p 88; Large Tree, p 106.

A special Thank You to Michael Northbird, General Assistance Program Manager and Steve Mortensen, Fish, Wildlife & Plant Resources Program Director.

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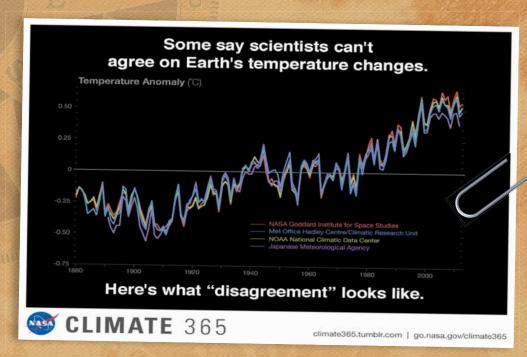
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## Climate Change Anticipate, Prepare, Adapt



Credit: Vostok ice core data/J.R. Petit et al.; NOAA Mauna Loa CO2 record.

While using your Leech Lake DRM Activity Field Guide, it is important to remember that climate change plays a key role in the future of all species listed throughout the book. Do you know how animals and plants anticipate climate change? Maybe you've noticed bears not going into hibernation as early as in the past, which may mean they anticipated warmer fall weather. Have you noticed species of plants or animals preparing for changes in climate? If so, what do you notice? Like maybe squirrel nests are becoming bigger than they ever have, which could indicate they are preparing for colder temperatures. What do you notice about the plants and animals around you and their ability to adapt to changes in their environment? Something common in the winter time is animals using manmade infrastructure for housing and adapting it their needs.



Most likely, you or a family member can identify changes in our environment due to adverse affects in our climate. Climate change means any change in climate such as warming or cooling. What is the difference between "normal climate change" and "abnormal climate change"? Normal climate change is based on scientific research of the Earth's natural flux of climate change over millions of years. This data includes an average global temperature, as well as, peak record highs and record lows. Abnormal climate change is based on scientific research of the Earth's manmade impact on climate change over the last 100 years or so ("industrial age") in comparison to the natural flux over millions of years. This simple information is the easiest to understand. It is also important to note, that no community has all of the answers and all communities will be affected, either directly or indirectly, by abnormal climate changes in the future. So, please take a minute during each activity to reflect on what that particular species might be subjected to over the

next 100 years. Recognize there are real concerns about climate change and our natural environment and it's relation to technological and industrial advances, as well as, related pollution and increases in contamination on our land.

Evidence of abnormal climate change is abundant. Some easily identifiable impacts include: Sea Level Rises, Global Temperature Rise, Warming of Earth's Oceans, Increased Rate of Shrinking Ice Sheets, Rapid Decreases in Arctic/Antarctic Sea Ice, Loss of Glaciers at alarming rates, Extreme Weather Events, Ocean Acidification, and Decreased Snow Cover, as well as, earlier snow melts worldwide. Normal climate change still exists too, however, historically it has taken place over long periods of time in Earth's history and it increasingly becomes more difficult to differentiate due to the large amount of abnormal data outweighing all indicators of normal climate changes.

## How to Use the Book

pertains to the Leech Lake Reservation. The Plant Life Cycle, and Tree Type sections will help you of each species will tell you the more speci to the Leech about that

Occurrence a Status section sections ons e status `s it and

Some pages may also include extra tidbits of information.

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speakers call it.

Ojibwe Name, What Native Ojibwe

Scientific Name, What scientists c call it.

**American Toad** 

Common Name, What we call it.

Subject Image

Field Notes

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the season and weather. when and The upper section is for you to record located the species also record where record

Species

Group

The right page is for you record your findings. ð

page. is the species information 9n the Leech Use this page to help Lake Reservation and you

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find

the species

**Key to Codes** 

The following codes and information are specific to the Leech Lake Reservation Tribal Lands.

### **Occurrence Codes**

You will find an occurrence code for each species in the guide. Please refer to this key as you explore.

- Resident Resident year round that is now, or is likely to live on Leech Lake
- Breed Species that is now, or is likely to breed on Leech Lake Reservation.
- Migration Species typically only seen during migration that does not usually breed here.
- Accidental Rare or accidental visitor.

## Threatened, Endangered, Sensitive Rank Codes

In order for a species to be listed on the Threatened, Endangered, Sensitive (TES) list, it must meet one or more of the following criteria:

- The species is known to exist on the reservation at the present time.
- The species is known to have historically been present on the reservation.
- The reservation is within the range of the species and suitable habitat is found on the reservation.

Please note: TES rank does not apply to all species.

- Endangered A species is listed as endangered when it is likely to become extinct or extirpated from the reservation unless measures are taken to protect it and/or its habitat.
- Threatened A threatened species is one that is likely to become endangered or extirpated from the reservation unless measures are taken to protect it and/or its habitat.
- Sensitive A sensitive species is one that is likely to become threatened or endangered from the reservation unless measures are taken to protect it and/or its habitat.
- Management Concern A species that is likely to reach TES status unless measures are taken to protect its habitat, protect it from non-native species invasion, disease issues, or other factors that pose a threat to it.

## **Plant Life Cycle**

This section refers to the yearly life cycle of a plant species. There are two main groups, Annual and Perennial. You will find more information about plant life in the Plants introduction on page 86.

## **Tree Type**

This section refers to the two main groups of trees, coniferous and deciduous. You will find more information about tree types in the Tree introduction on page 106.

about the species

you find. Don't forget to look for

might leave behind

detailed

information

The lower section is for you to record



## **Amphibians & Reptiles**

Amphibians begin life as one type of organism like a tadpole and then change into another like a frog. From unshelled eggs, most start off as some type of larvae with gills that extract air from the water around them. They then develop a lung and breathe air. Salamanders, frogs, and toads are all amphibians.

Reptiles are a group of animals that are covered in scales with dry skin. All except snakes have legs and well-defined toes and claws. Most reptiles lay eggs but there are a few species of snakes and lizards that give birth to live young. Lizards, snakes, and turtles are all reptiles.

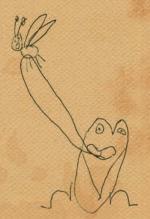
Many people may be afraid of snakes, frogs, salamanders, toads, or turtles, but they are important to the ecosystem and should not be killed for no reason. On the reservation, there are no poisonous snakes that can kill people. In the spring, many people listen for the first songs of the Spring Peepers. They are known as a symbol of spring time.





Amphibians/Reptiles

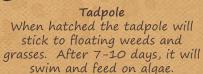


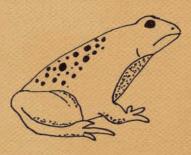


Eggs
Frogs lay eggs in masses, toads
lay eggs in long chains.
After the eggs are fertilized by
the male, it will take
6-21 days to hatch.



Frog
The frog has completed its
full growth cycle in around
12-16 weeks.









Young Frog
In 12 weeks, the tadpole will develop
into a small version of its parent.





Tadpole with Legs
Legs begin to develop in 6–9
weeks. The tadpoles appetite will
also begin to increase and will now
eat dead insects and plants.





## **American Toad**

Scientific Name	Ojibwe Name	00	Occurrence			TES Status				
Bufo americanus	Obiigomakakii	R	В	M	Α	Е	Т	S	MC	

## Description

Reddish brown colored skin with one to two warts in each darker patch on its back. Their chest is a lighter color with small dark spots.

### Size

2-3½ inches long

## **Life Span**

Most only live for a year in the wild, but they can live up to 10 years.

### Habitat

During the breeding season, they can be found near water, but after the breeding season they may be found in most habitat types.

#### Food

Most of their diet consists of insects.

## Breeding

Soon after emerging from hibernation, they begin the breading season. Their mating call can be heard from mid-April-June. Eggs are fertilized from males as the female lays them underwater. Eggs are laid in two long jelly like tubes. Eggs hatch in 3-12 days into tadpoles. It takes 40-70 days for them to transform into adults.

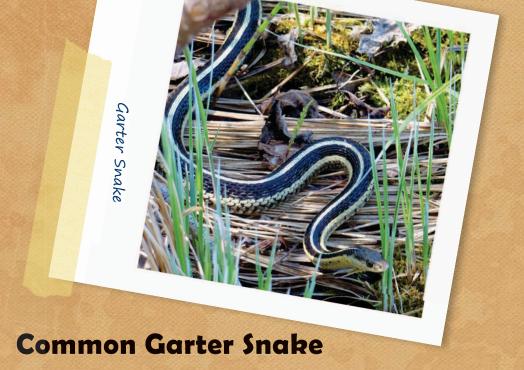
#### **Overwinter Habits**

In the winter months, they burrow down to under the frost line and hibernate. If the frost line gets lower, the toad will keep burrowing in the dirt to stay below it.

Toads have conspicuous paratoid glands on their bank that secrete a milky substance called bufotoxin when they are provoked. This substance tastes bad to animals and may even kill others if they try to eat this toad.



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What was the subject doing?					
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Scientific Name	Ojibwe Name	Occurrence			TES Status				
Thamnophis sirtalis	Ginebig	R	В	M	Α	Е	Т	S	MC

## Description

A medium sized black snake with three yellow lengthwise stripes on its back and sides.

#### Size

Length: up to 3 feet

## **Life Span**

3-4 years

### Habitat

Can be found sunning themselves on rocks or the edge of the road. They can be found in most types of habitats.

### Food

They eat many different types of food including earthworms, small rodents, frogs, and insects.

### **Breeding**

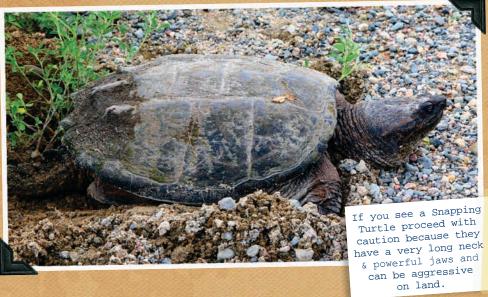
It takes about 2 years for these snakes to reach sexual maturity. Male snakes emerge from hibernation before the females do. Once the females have emerged, male snakes will surround her and give off strong pheromones. The female then chooses a male to reproduce with. Females give birth in August or September and the young are left to fend for themselves.

#### **Overwinter Habits**

During the winter months, Garter Snakes find an unused burrow or rock pile to get below the frost line to hibernate.



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## **Common Snapping Turtle**

Scientific Name	Ojibwe Name	00	Occurrence							
Chelydra serpentina	Mikinaak	R	В	M	Α	Е	Т	S	MC	

## Description

The back of their shell may be green, brown or black in color. Younger turtles have spiky rough shells that get smoother as they age. They have leathery skin and a large head with powerful jaws. They have very sharp long claws that help them defend themselves and dig holes for laying eggs.

#### Size

Shell: can reach 8-15 inches across Weight: up to 65 pounds These are the largest turtles found in Minnesota.

### Lifespan

Up to 57 years. It takes 5-7 years for Snapping Turtles to reach maturity.

#### Habitat

They can be found in all types of aquatic habitats, but prefer calm water with mucky bottoms. Can be seen along roads sunning themselves or laying eggs along dirt roads.

### Food

Fish, insects, clams, crayfish, worms, frogs, salamanders, other turtles, birds, snakes, small mammals, aquatic plants and carrion

### **Breeding**

Breeding occurs in the spring and fall when the turtles are active. Females look for a nesting area with dry soils and a lot of sunlight. At that time 10-50 eggs are laid. The eggs will hatch in 50-125 days depending of the weather conditions. If the weather conditions are warmer all the eggs will become females, but if the weather is cooler than all the eggs will be males. Young turtles are vulnerable to predators and 60-100% of the young may not survive.

#### **Overwinter Habits**

They overwinter from October-April in Minnesota. They will find shallow ponds and either stay on the bottom of the pond or dig into the mud. Many turtles may overwinter in the same area.



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What was the subject doing?					
Notes:					
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## **Gray Treefrog**

Scientific Name	Ojibwe Name	00	Occurrence			TES Status				
Hyla versicolor	agoozimakakii	R	В	M	Α	Е	Т	S	MC	

## Description

Small frog that has small toe pads that allow them to climb. They are able to change color between green, gray, or brown. The inner thigh on the hind legs is bright yellow in color.

### Size

Length: 11/4-2 inches

## Lifespan

7-9 years

## Habitat

Can be found in woodland habitat near vernal pools.

#### Food

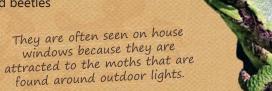
Moths, crickets, ants, flies, grasshoppers and beetles

### Breeding

Breeding season occurs in May. The frogs will move to breeding ponds. Females lay 30 eggs attached to vegetation. The eggs will hatch in 3-6 days and will transform from tadpoles to frogs in 2 months. It takes two years for them to become fully mature.

### **Overwinter Habits**

Stay on land and create a glucose based antifreeze that keeps the cells from being destroyed. Their body can withstand partial freezing.







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## **Northern Leopard Frog**

Scientific Name	Ojibwe Name	Occurrence			се	TES Status				
Rana pipiens	Omagakii	R	В	M	А	E	Т	S	MC	

## Description

A green to brownish colored frog covered in dark spots on its head, back and legs. The dark spots have a light colored edge around them. Dorsal folds are visible on the back of the frog. There are some Leopard Frogs that don't contain spots, these frogs are called Burnsi Leopard Frogs.

#### Size

Length: 2-3½ inches long

### Life Span

2-4 years

### Habitat

They live in wet meadows and moist fields throughout spring and summer. In the fall, they move to the bottom of rivers, lakes and streams to survive the winter.

#### Food

Adults feed on insects. Tadpoles feed on algae, diatoms or small animal matter.

## **Breeding**

It takes 2-3 years for Leopard Frogs to become sexually mature. At the end of April, male frogs will start calling to attract female frogs. Females will then lay eggs that are attached to vegetation under water. The eggs will hatch in about a week and by August the tadpoles will be grown enough to feed on land.

### **Overwinter Habits**

During the winter months, they survive at the bottom of lakes, rivers and streams by breathing oxygen through their skin.





Date:	Tim	e:			
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What was the subject doing?					
Notes:					



## **Painted Turtle**

Scientific Name	Ojibwe Name	Occurrence					TES Status				
Chrysemys picta	Miskwaadesi	R	В	M	Α	Е	Т	S	MC		

## Description

Turtles bodies are encased in a shell that is dark brownish-green in color and the underside is bright red, yellow and orange. Their skin is black with yellow striping and scaly. They have a long tail and claws.

#### Size

Females: 4-10 inches long Males: slightly smaller than females

### **Life Span**

Adults can live for more than 55 years in the wild.

#### Habitat

Can be found in ponds, streams, lakes, or rivers. They may also be seen sunning themselves on the edge of roads or on logs in the water.

#### Food

Turtles eat a wide variety of aquatic foods ranging from aquatic vegetation to fish and crustaceans.

### **Breeding**

It takes 2-9 years for male turtles to reach maturity and 6-16 years for females. Turtles mate in spring and autumn. Eggs are laid between late-May and mid-July.

#### **Overwinter Habits**

When the water temperature reaches around 60° F turtles stop eating and get ready for winter hibernation. Turtles hibernate from October-March most years depending on the weather. They burrow themselves into the mud or branches at the bottom of shallow water. While turtles are hibernating they do not eat, breathe or defecate.



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	Season	*	*	*	***
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☐ I observed this species. ☐ Tracks ☐ Sounds Length: Height: Estimated Weight: Colors: This subject is: ☐ Amphibian ☐ Reptile Describe the skin type: What was the subject doing?	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind

Pendulous nests are woven tightly with plant fibers and are attached to small branches on a tree. They resemble a sock hanging from a branch and are usually watertight.

## Birds



Birds inhabit all types of habitats from high in the sky to under the water. They have a wide variety of diets such as raptors feeding on fish, songbirds feeding on nuts and seeds, hummingbirds feeding on nectar, waterfowl feeding on vegetation, woodpeckers feeding on grubs, or owls feeding on rodents. Every type of bird has its specialized skills that help it compete for its resources. There are 325 species of

Bird nest types include ground nests, platform nests, cup nests, pendulous nest, cavity nests or no nest at all. There are some bird species that do not build a nest because they use nests of other birds. A good example of this is the Brown Headed Cowbird. This bird is considered a parasitic nester because they will lay their eggs in a nest that already has eggs in it. When this happens the host mother bird ends up raising the Brown Headed Cowbird's eggs instead of her own young.





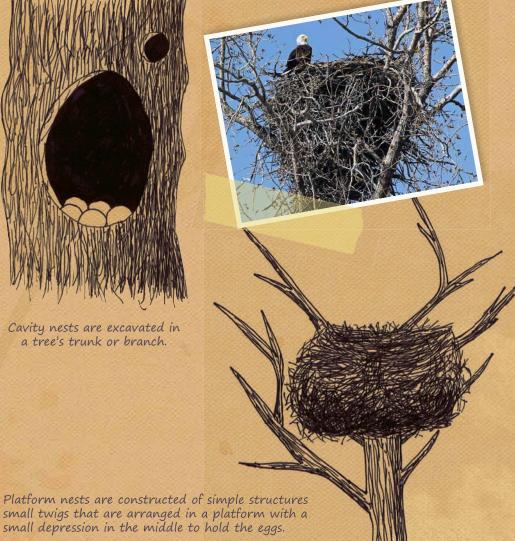
Ground nests are simple nests where a bird will just scrape a shallow nest out of the earth with no nesting materials added.



Cup nests are basically a modified platform nest. They are started as a platform nest but them the sides are built from the outside in with grasses, small twigs, bark or leaves. The edges are higher than a platform nest and they are firmly attached to trees, shrubs, rock ledges, or on the ground. This type of nest is common in three-fourths of songbirds.



Cavity nests are excavated in a tree's trunk or branch.





## **American White Pelican**

Scientific Name	Ojibwe Name	00	cur	ren	се	TH	ES S	tatı	ıs
Pelecanus erythrorhynchos	Azhede	R	В	M	Α	Е	Т	S	MC

## Description

A large white bird with black tipped wing feathers, a very large orange bill and feet.

### Size

Length: 50-65 inches Weight: 150-320 ounces

### Sounds

Low pitched grunts

## **Life Span**

15-20 years

## Reproduction

Mating season occurs in March and April. Females lay 2 white eggs. Incubation is 30 days.

### Habitat

Can be found anywhere near water including lakes, streams, rivers, and ponds.

### Food

A variety of fish and amphibians

## **Nest Type**

Both parents help build nests on the ground in sandy or gravely areas.

## Migration

Complete migration to lower states, South American and Mexico.





Date:	Tim	e:			
Location:					
Observations	e o	Spring	Summer	Autumn	Winter
☐ I observed this bird.	Season		<b>**</b>	-	- <del>X</del>
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying		C		G1 - 1	550000000000000000000000000000000000000
Other:		Sunny	Pt-clay	Cloudy	Wind
Length: Height:	Weather	3	-		
Weight:Wingspan:	Weg	Rain	Sleet	Snow	Fog
Colors:	8			010	***
Description:					
What was the bird doing?					
Notes:					
-					



## **Bald Eagle**

It takes up to 5 years for a Bald Eagle to reach maturity and get white feathers on their head and tail.

Scientific Name			cur	ren	се	TE	TES Status			
Haliaeetus leucocephalus	Migizi	R	В	M	Α	Е	Т	S	MC	

### Description

Adult: Large sized bird with a white head and tail and a dark brown body. Large curved yellow beak that is used for tearing apart food.

Juvenile: Dark brown body with white speckling throughout. Large grey colored beak.

#### Size

Head to tail: 35 inches Weight: 10-12 pounds

#### Sound

A series of high pitched whistles or cackling sound.

## **Life Span**

Can live up to 70 years but most only live to 30 years.

### Reproduction

Mating season is late March-early April. 1-3 eggs are laid and incubated for 35 days. Both the male and the female help incubate the eggs. The fledglings will stay with the parents for 90 days and both parents help feed the young.

#### Habitat

Hardwood forests, lake shore and river shore. When nesting, they can be seen around areas of water including lakes, ponds, streams and rivers. They are usually located within a half mile of water. They may also be seen along highways searching for carrion.

#### Food

Small mammals, fish, ducks, and carrion

#### **Nest Type**

Large platform nests in large trees or manmade platforms. Both male and female help build the nest. A nest can weigh up to two tons. They will return to the same nest every year unless it is destroyed.

## Migration

Not all eagles migrate in the winter. The ones that do, make their way south.



Tim	e:			
uo	Spring	Summer	Autumn	Winter
Seas		- **	*	-3%
<b>V</b>				7.47
	Sunny	Pt-cldy	Cloudy	Wind
ther	<b>**</b>			
Veat	Rain	Sleet	Snow	Fog
>	-	***	- F	-
	525			
	Weather	Sunny Rain	Spring Summer  Sunny Pt-cldy  Rain Sleet	Sunny Pt-cldy Cloudy Rain Sleet Snow



## **Black-capped Chickadee**

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	ıs
Poecile atricapillus	gijigijigaaneshiinh	R	В	M	А	Е	Т	S	MC

## **Description**

Male and female look the same. Grayish colored bird with black on the cap of its head and on its throat. There is a white patch under the eye. The chest is a whitish yellow color.

### Size

Head to tail: 5 inches long Weight: 12 grams

#### Sounds

Their call sounds like "chickadee-deedee". The more "dee's" in the call the higher the threat level.

## **Life Span**

2-3 years

## Reproduction

Mating season occurs April through June. They may lay 1-13 eggs in the nest. Incubation is 12 days.

### Habitat

Can be found in many different habitat types including, forests, wetlands, woody shrubs, weedy fields and residential neighborhoods.

### Food

Seeds, berries, insects, carrion, suet, and spiders

## **Nest Type**

Both parents build the nest or find a cavity in a tree to nest in or nesting box.

## Migration

Do not migrate





Date:	Tim	e:			
Location:					
Observations	5	Spring	Summer	Autumn	Winter
☐ I observed this bird.	Season	-	-	*	- <del>X</del>
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying		Sunny		Cloudy	Wind
Other:		Summy	Pt-Clay		WING
Length: Height:	Weather	3,15			~~
Weight:Wingspan:	We	Rain	Sleet	Snow	Fog
Colors:				910	200
Description:					
What was the bird doing?					
Notes:					
2.790000					



## **Common Loon**

Most birds have hollow bones that weight less to help with flying, but loons have solid bones to help them dive deeper underwater.

Scientific Name	Ojibwe Name	Occurrence					TES Status				
Gavia immer	Maang	R	В	M	Α	Е	Т	S	MC		

## Description

Males and Females look the same. They are a large black and white bird that can be found in lakes and rivers. They have a thick neck with a long black beak. Their eyes are red in color which help them see underwater. Their legs are positioned father back, this makes it hard for them for walk on land, but easier to swim. Their body is covered in black and white lines and spots.

#### Size

Length: 30-35 inches Weight: 8-12 pounds

#### Sound

They make four different types of calls. The tremolo, which sounds a bit like maniacal laughter, is used as an aggressive call. The wail is a long, drawn-out sound. The hoot, which is a shorter call, is used to communicate among parents and young. The yodel is made by males guarding their territory.

### **Life Span**

Average life span in the wild is 30 years.

### Reproduction

Loons don't breed until they are three or four years old. Mating season occurs in May and June. They lay 2 light brown eggs. Incubation is around 30 days.

#### Habitat

They are found swimming in lakes or rivers.

### **Food**

Fish, crawfish, frogs, leeches, salamanders, and insects

## **Nest Type**

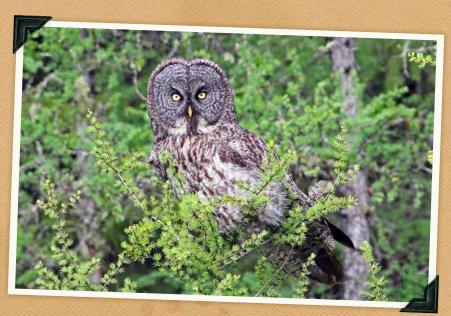
Loons build a platform nest on the ground along the edge of the water.

## Migration

Loons change to a grey color in late fall and migrate to southern states, gulf coast and Mexico.



Date:	Tim	e:			
Location:			100000000000000000000000000000000000000		
Observations	Ę	Spring	Summer	Autumn	Winter
Observations  I observed this bird.	season	Spring	Summer	Autumn	
	Season	*	*	*	Winter
I observed this bird.		Spring	Summer Pt-cldy	*	
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other:		Sunny	Pt-cldy	Cloudy	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying	eather	Sunny	Pt-cldy	*	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other: ☐ Length: Height:	eather	Sunny	Pt-cldy	Cloudy	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other:  Length: Height: Weight: Wingspan:	Weather	Sunny	Pt-cldy	Cloudy	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other: ☐ Length: ☐ Height: ☐ Weight: ☐ Wingspan: ☐ Colors: ☐ Colors: ☐ Colors: ☐ Colors ☐ Color	Weather	Sunny	Pt-cldy	Cloudy	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other:  Length: Height: Weight: Wingspan: Colors: Description:	Weather	Sunny	Pt-cldy	Cloudy	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other: ☐ Length: ☐ Height: ☐ Wingspan: ☐ Colors: ☐ Description: ☐	Weather	Sunny	Pt-cldy	Cloudy	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other: ☐ Length: ☐ Height: ☐ Wingspan: ☐ Colors: ☐ Description: ☐	Weather	Sunny	Pt-cldy	Cloudy	Winter



## **Great Gray Owl**

Scientific Name	Ojibwe Name	00	cur	ren	се	TES Status			
Strix nebulosa	Gookooko'oo	R	В	M	Α	Е	Т	S	MC

Habitat

Food

Mostly rodents

**Nest Type** 

Migration

Do not migrate

Found in Boreal Forests.

They will nest in broken topped dead trees

or in nests already made by other birds.

## Description

A large gray owl with yellow eyes and a white "bowtie" under their chin. No ear tufts are visible.

### Size

Length: 24-33 inches Weight: 24-60 ounces

### Sounds

A series of evenly spaced low pitched "hoo's".

## Life Span

Up to 15 years

3-5 white eggs. Incubation 28-36 days.





Date:	Tim	ne:			
ocation:					
Observations	ou	Spring	Summer	Autumn	Winter
I observed this bird.	Season	-	-**	*	- <del>X</del>
Tracks Sounds Nest Flying	H	Sunny		Cloudy	Wind
Other:	L	Sullity	Pt-Clay	, and the	WING
ength: Height:	Weather	3/15		-55	~~
Weight:Wingspan:	We	Rain	Sleet	Snow	Fog
Colors:				416	***
Description:					
What was the bird doing?					
Notes:					



## Mallard

Scientific Name			cur	ren	се	TE	TES Status			
Anas platyrhynchos	Ininishib	R	В	M	Α	Е	Т	S	MC	

## Description

Males have a light grey body with a brown chest, green head, yellow bill and orange legs. Females are all brown with an orange and black bill.

### Size

Length: 20-28 inches Weight: 2-3 pounds

### Sounds

Make a quaking sound that is similar to laughter.

### **Life Span**

If a Mallard survives the first two years of life, the average life span is 7-9 years.

## Reproduction

Mating season occurs in late March and into early April. They lay 1-13 greenish white eggs. Incubation period is 30 days. They may have 1-2 broods per year.

#### Habitat

Can be found in wetlands, ponds, lakes, rivers, ditches and in city parks.

### **Food**

Aquatic vegetation, snails, earthworms, seeds, insects, and freshwater shrimp

### **Nest Type**

They form a small bowl shape on the ground to nest in. No nesting material is placed in the nest.

## Migration

Complete migration to southern states.

These are the most common ducks You will find at boat parks.



Date:	Tim	e:		7072 B	
Location:					
Observations	<u> </u>	Spring	Summer	- ·	
	S S	1	Danine	Autumn	Winter
I observed this bird.	Season	*	**	Autumn	Winter
☐ I observed this bird. ☐ Tracks ☐ Sounds ☐ Nest ☐ Flying	Seaso	*	*	*	***
		Sunny	Pt-cldy	Cloudy	Wind
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying		Sunny	Pt-cldy	Cloudy	Wind
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other:	eather	*	*	*	***
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying ☐ Other:  Length: Height:	Weather	Sunny	Pt-cldy	Cloudy	Wind
Tracks Sounds Nest Flying Other:  Length: Height: Weight: Wingspan:	Weather	Sunny	Pt-cldy	Cloudy	Wind
Tracks Sounds Nest Flying Other: Length: Height: Weight: Wingspan: Description:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Nest Flying Other:  Length: Height: Weight: Wingspan: Colors:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Nest Flying Other: Length: Height: Weight: Wingspan: Description: What was the bird doing?	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Nest Flying Other: Length: Height: Weight: Wingspan: Description: What was the bird doing?	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind



## Osprey

Scientific Name	Ojibwe Name	Occurrence				TE	TES Status			
Pandion haliaetus	Biijigigwane	R	В	M	А	Ш	Т	S	MC	

## Description

Large raptor with a white underside and brown back. Their head is white with a brown streak through their eyes. Their eyes are yellow in color and their beak is black.

### Size

Length: 24 inches Weight: 3-4 pounds

### Sounds

A high pitched whistling call.

## **Life Span**

Up to 30 years

## Reproduction

Mating season occurs from March-May. They lay 2-4 eggs and incubation is 32-42 days.

## Habitat

May be found anywhere near water including rivers, ponds, streams, lakes, swamps and marshes.

### Food

Eat all types of fish.

### **Nest Type**

Nests are built on top of large trees in open areas. Sticks, vines and grasses are gathered to build the nest. Nests are commonly seen on telephone poles.

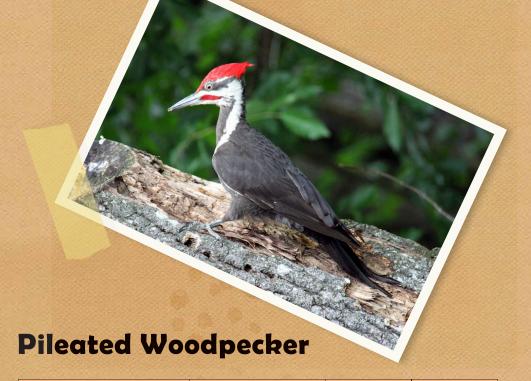
## Migration

Complete migration to southern states, Mexico and South America.





Date:	Time	e:			
Location:					
Observations	Ę	Spring	Summer	Autumn	Winter
I observed this bird.	Season		-*	*	-**
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying		Sunny	Pt-cldy	Cloudy	Wind
Other:	<u></u>	344	10 010y	Cloudy	200
Length: Height:	Weather	Rain	Sleet	Snow	Fog
Weight:Wingspan:	×	Raili	Sieer	SHOW	Fog
Colors:				920	2~2
Description:					
What was the bird doing?					
Notes:					



Scientific Name	Ojibwe Name	Occurre			се	TE	ES S	tatı	ıs
Dryocopus pileatus	Meme	R	В	M	Α	Е	Т	S	MC

### Description

Large black woodpecker with white and red striping on the face. Males and females have a red tuft on the top of their head, but males also have a red stripe under their eyes.

#### Size

Length: 19 inches Weight: 11 ounces

### Sounds

A series of piping calls that lasts several seconds. They also make a "cuk cuk" sound.

## **Life Span**

Can live up to 13 years.

## Reproduction

Breeding season is in between March and April. They lay 3-5 white eggs. Incubation period is 16 days.

#### Habitat

Live in wooded areas that contain large dead trees.

#### Food

Their main food is made up of carpenter ants. Their diet also consists of other ants, beetle larva, termites, caterpillars, grasshoppers, fruits, suet, and nuts.

## **Nest Type**

Pileated woodpeckers nest in cavities in large dead trees.

## Migration

Do not migrate









Date:		e:			
Location:					
Observations	Season	Spring	Summer	Autumn	Winter
I observed this bird.	Sea	98	***	-	<del>***</del>
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying	- 200		00.000		Sharke make
	3	Sunny	Pt-cldv	Cloudy	Wind
Other:	<u>.</u>	Sunny	Pt-cldy	Cloudy	Wind
Other: Height:	ather	*	- <b>**</b> **	3	**
	eathe	Sunny	Pt-cldy Sleet	Cloudy	Wind
Length: Height:	Weathe	*	- <b>**</b> **	3	**
Length: Height: Weight: Wingspan:	Weathe	Rain	- <b>**</b> **	3	**
Length: Height: Wingspan: Colors:	Weathe	Rain	- <b>**</b> **	3	**
Length: Height: Weight: Wingspan: Colors: Description:	Weathe	Rain	- <b>**</b> **	3	**
Length: Height: Weight: Wingspan:  Colors:  Description: What was the bird doing?	Weathe	Rain	- <b>**</b> **	3	**
Length: Height: Weight: Wingspan:  Colors:  Description: What was the bird doing?	Weathe	Rain	- <b>**</b> **	3	**
Length: Height: Weight: Wingspan:  Colors:  Description: What was the bird doing?	Weathe	Rain	- <b>**</b> **	3	**



## **Ruby-throated Hummingbird**

Scientific Name	Ojibwe Name	Occurrence				TE	TES Status			
Archilochus colubris	Nenookaasi	R	В	$\bowtie$	А	Е	Т	S	MC	

## Description

Small iridescent green bird with a white stomach, green back and long black bill. Males have a black throat patch that reflects bright red when the sun shines on it.

#### Size

Length: 3 inches Weight: 3 grams

### Sounds

They emit a "chee-dit" sound to communicate with other humming birds and they also make little chipping noises.

### **Life Span**

Average 3-4 years. The oldest living hummingbird was 12 years old.

## Reproduction

Mating season takes place in March and April when the birds return from migration. The female then lays two tiny white eggs in the nest. Incubation is 13 days. They may have 1-2 broods per year.

### Habitat

Found in deciduous woodlands, fields, forest edges, gardens, and orchards.

Actual Length

W

#### Food

They feed on nectar from flowers and on insects.

### **Nest Type**

Females build a cup nest 10-50 feet above the ground on small branches of deciduous trees. They commonly use lichens and spider webs to build their nests.

### Migration

Complete migration to southern states, Mexico and Central America.





Date:	Tim	e:			
Location:					
Observations	5	Spring	Summer	Autumn	Winter
☐ I observed this bird.	Season	-	-*	*	**
☐ Tracks ☐ Sounds ☐ Nest ☐ Flying		Sunny	Dt = aldy	Cloudy	Wind
Other:	<u></u>	Summy	TC Clay		WING
Length: Height:	Weather	Rain	Sleet	Chart	Fog
Weight:Wingspan:	×	Rain	Steet	Snow	Fog
Colors:			1	910	2~2
Description:					
What was the bird doing?					
Notes:					





## **Ruffed Grouse**

Scientific Name	Ojibwe Name		cur	ren	се	TI	TES Status			
Bonasa umbellus	Bine	R	В	M	Α	Е	Т	S	MC	

## Description

Male - Brownish spotted bird that resembles a chicken. The feathers on the very top of their head stands up. Their tail is long and square shaped with a black band that is continuous throughout the tail.

Female - Same as male except the black band on the tail is broken up in the middle.

#### Size

Head to tail: 13 inches Weight: 1½ pounds

#### Sounds

In the spring males attract females by "drumming". This is where the male flaps his wings quickly and compressing the air creating a low pitched drum sound. When alarmed they also make a peeping sound.

## **Life Span**

Maximum is 11 years. Most birds don't make it over 2 years.

## Reproduction

Mating is in late April; 9-14 eggs are laid and the female incubates the eggs for 23 days. Young are fully grown in 16 weeks.

#### Habitat

Young to middle aged forests.

#### Food

Herbivore; seeds, berries, nuts, buds, rosehips, clover, and insects

### **Nest Type**

Ground nests in a dense forest usually along a tree or stump.

## Migration

Non-migrator



Date:	Tim	۵۰.			
Location:	1111				
Observations	_	Spring	Summer	Autumn	Winter
☐ I observed this bird.	Season		<u> </u>	**	335
	Š		THE	7	XX.
Tuesday Nost   Things	200				
Tracks Sounds Nest Flying		Sunny	Pt-cldy	Cloudy	Wind
Other:	ner	Sunny	Pt-cldy	Cloudy	Wind
Other: Height:	eather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Other:	Weather	*	-	33	<b>**</b>
Other: Height:	Weather	*	-	33	<b>**</b>
Other: Height: Weight: Wingspan:	Weather	*	-	33	<b>**</b>
Other: Height: Wingspan: Colors:	Weather	*	-	33	<b>**</b>
Other:  Length: Height: Weight: Wingspan: Description:	Weather	*	-	33	<b>**</b>
Other:  Length: Weight: Wolden Wingspan: Colors: Description: What was the bird doing?	Weather	*	-	33	<b>**</b>
Other:  Length: Weight: Wolden Wingspan: Colors: Description: What was the bird doing?	Weather	*	-	33	<b>**</b>
Other:  Length: Weight: Wolden Wingspan: Colors: Description: What was the bird doing?	Weather	*	-	33	<b>**</b>

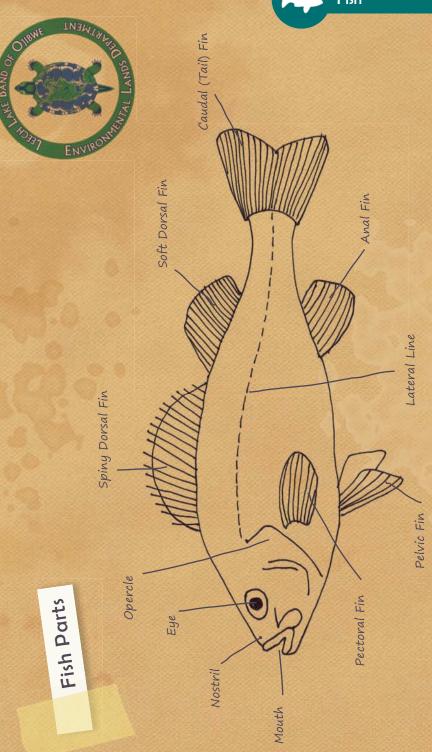


## Fish

Fish play an important role in the ecosystem and as an important food source. Many people enjoy fishing for sport or to catch a meal. Common sport fish include Walleye, Bass, Muskie, Northern Pike, Sunfish, Perch, and Crappie. On the reservation, registered band members may harvest fish by using a fishing pole, tip ups, spearing or by netting. All fish contain mercury, which is found in our lakes from pollution given off by coal combustion, mining, or from acid water were Mercury is given off by the minerals in the sediments. Smaller fish like sunfish, crappie and perch can be eaten more often than larger fish like walleye, northern and bass because they contain lower amounts of mercury. Women that are pregnant or nursing should take extra precautions on the amount of fish they consume.

Fish can carry different diseases, so look carefully before consumption. Some fish diseases are apparent on the outside of the fish, while others are not noticeable until the fish is filleted.







## **Black Crappie**

Scientific Name	2		cur	ren	се	TH	TES Status			
Pomoxis nigromaculatus	Gidagagwadaashi	R	В	M	Α	Е	Т	S	MC	

## Description

Black to dark olive in color with silver sides and dark green to black blotches throughout their body. Depression above their eye is more pronounces than White Crappies.

#### Size

Length: 7-12 inches

Weight: 10 ounces-1 pound

## Reproduction

May-June they spawn in shallow weedbeds when the water temperature reaches 50° F in the spring. Male crappies clear out circular nests in the sand. Females produce more than 190,000 eggs a year. The male will guard the nest and young until they are able to feed on their own.

## Habitat

Can be found in clear lakes, rivers and streams. Mostly in the summer they are found along the weedbeds, but may go into deeper water especially in the winter months.

#### Food

Mostly smaller fish, zooplankton, insects and earthworms

#### **Common Diseases**

Neascus (Black spot disease) is common in shallow water fish like Crappies and Sunfish. This disease can be seen on the outside and fish and sometimes in the meat. The fish will appear to have black dots all over its skin and fins. If the meat is properly cooked, it is safe to eat.



Date:	_ Tim	e:			
Location:					
Observations	E	Spring	Summer	Autumn	Winter
I observed this fish.	Season	-	<b>□</b> ₩	*	- <del>X</del>
Length: Height:	200	Sunny	Pt-cldy	Cloudy	Wind
Estimated Weight:	, i	W W	w//		
Describe the scales:	Weather	Rain	Sleet	Snow	Fog
	Š	Rain	Dicci	SHOW	rog
Does this fish have teeth?		7		910	~~
Notes:					
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<u>,                                    </u>					
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			50000° IN		



## **Northern Pike**

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	us
Esox lucius	Ginoozhe	R	В	M	Α	Е	Т	S	MC

## Description

A long body with the dorsal fin near the tail. They have a long flat head with a large mouth and sharp teeth. Their body is a dark green color with light green spots throughout. The underside is a light cream color. The underside of the jaw will contain five or less pores.

#### Size

Length: 17-24 inches Weight: 2-5 pounds

### Reproduction

Spawning season occurs in late March through early April when the water temperature reaches 40° F. Females deposit eggs on vegetation in shallow water.

#### Habitat

Can be found in lakes, ponds, streams and rivers. They spend most of their time along the weedline.

#### Food

They consume mostly smaller fish, but will also eat frogs and crayfish.

### **Common Diseases**

Lymphosarcoma - a disease found in Pike and Muskies. Fish will have a small to large sized tumor on the outside of their body.

Northern Pike have dark colored skin with light colored spots and Muskies have light colored skin with dark spots.





Data	_	ime:			
Date: Location:		e			
Observations	Ę	Spring	Summer	Autumn	Winter
☐ I observed this fish.	Season	Me	***	*	XX
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Length: Height:		Sunny	Pt-cldy	Cloudy	Wind
Length: Height:		Sunny	Pt-cldy	Cloudy	Wind
Length: Height:		Sunny		Cloudy	Wind
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## Walleye

Scientific Name	Ojibwe Name	00				TES Status			
Sander vitreus	Ogaa	R	В	M	А	Е	$\vdash$	S	MC

## Description

Silver to golden or dark olive brown in color with a long round body. Both first dorsal and anal fin contain spikes. They have sharp teeth and a white spot on the bottom part of the tail fin. A dark patch is located at the base of the dorsal fin.

#### Size

Length: 14-18 inches Weight: 1-3 pounds but can exceed 10 pounds

## Reproduction

Spawning takes place in tributary streams or rocky lake shores when the water temperature reaches 45 degrees in the spring. No parental care involved.

#### Habitat

Can be found in lakes are rivers.

### Food

Carnivorous; fish that will eat smaller fish, frogs, crawfish, and leeches.

#### **Diseases**

Dermal Sarcoma - a disease that only walleyes contract. Walleyes will get purple grape like tumors on the outside of their body. It is spread mostly during breading season in the spring. The effects on humans from this disease is unknown.

Myofibrogranuloma - another disease that is only found in walleye. The outside of the walleye appears normal but, the inside meat contains yellowish translucent patches. The meat has a freezer burn appearance. Consumption of these fish is not recommended.



Date:	Tim	ne:			
Location:					
Observations		Spring	Summer	Autumn	Winter
☐ I observed this fish.	Season		- ***	*	-XX
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		Sunny	Pt-cldy	Cloudy	Wind
Estimated Weight:	her	□ 🌞			<b>***</b>
Describe the scales:	Weather	Rain	Sleet	Snow	Fog
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Does this fish have teeth?	1	-	• gr	20 de-	
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## White Sucker

Scientific Name	Ojibwe Name			TE	ES Status				
Catostomus commersonii	Namebin	R	В	M	Α	Е	Т	S	MC

## Description

This is a common fish throughout Minnesota. Their back is brownish in color and their sides are silver. Their belly is white and the dorsal fin and tail are gray. Their head is rounded with a blunt snout and large lips.

### Size

Length: 12-19 inches Weight: 2-3 pounds

## Reproduction

April-May they spawn in gravel along shorelines or in streams.

### Habitat

Can be found in all types of water bodies.

### Food

Insects, crustaceans, and plants



Suckers play a very important role in the ecosystem. They are a large food source for many other fish. White sucker meat is used in soups, chowders, fish sticks or smoked.



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ocation:	
Observations	
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ength: Height: stimated Weight: Describe the scales: Does this fish have teeth?	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog
ength: Height: stimated Weight: Describe the scales:	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog
ength: Height: stimated Weight: Describe the scales: Does this fish have teeth?	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog
ength: Height: stimated Weight: Describe the scales: Does this fish have teeth?	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog
ength: Height: stimated Weight: Describe the scales: Does this fish have teeth?	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog



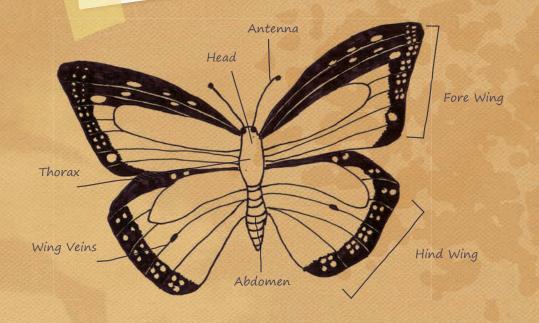
## Insects

Insects are defined as arthropods containing 6 legs and bodies that are segmented into the head, thorax and abdomen and usually having a pair of wings. Insects are a very important food source for many different animals including, frogs, birds, rodents, fish, other insects and even certain plant species. Every insect has different adaptations to help them survive. Bees and wasps have stingers to ward off predators and protect their homes. Certain caterpillars retain toxins from the plants they eat so predators know they are toxic to eat. Other insects may have spikes, bristles or hairs that detours predators. Insects like deer ticks or mosquitoes can carry different disease and should be watched carefully if bitten by them. Some of the prettiest insects found on the reservation are moths and butterflies. Butterflies can commonly be seen puddling on dirt roads. This is where butterflies find small puddles and extract sodium ions and amino acids which aid in reproduction.





# Butterfly Parts





Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tati	us
Papilio glaucus	Memengwaa	R	В	M	Α	Е	Т	S	MC

## Description

These butterflies are bright yellow with black striping on the top of their wings and a bold black edging on the sides and bottom of their wings. Females have a vibrant blue color at the bottom tips of their wings where the male only has black.

#### Size

Wingspan: 9-14 centimeters Females are slightly larger than males.

#### Habitat

These butterflies can be seen in many different types of habitats including forests, gardens, streams, fields, and roadsides. They can be seen on dirt roads puddling. Puddling is where a butterfly gets sodium ions and amino acids from small mud puddles, which aid in reproduction. There may be only one butterfly seen on a small mud puddle or many butterflies.

### Food

Most of their food consists of nectar from red or pinkish colored flowers.

## **Life Cycle**

These butterflies go through a four stage life cycle including egg, caterpillar, pupa, and adult butterfly. Female butterflies lay one small green egg on a host plant. 3-5 days later the egg hatches and a caterpillar emerges. The caterpillar will then feed on the leaves of the host plant. The caterpillar goes through 5 instars before it becomes a pupa. The chrysalis measures 3.2 centimeters in length and usually takes 9-11 days in the summer before the transformation to an adult butterfly is complete. Near the winter months they will stay in the chrysalis over winter.

#### **Overwinter Habits**

Pupa stay in the chrysalis over winter and emerge in the spring.



I observed this insect.  Walking or standing Flying  Other:  Length: Height:	Date:	Tim	e:			
I observed this insect.  Walking or standing Flying Other: Length: Length: Rain Sleet Snow Fog Description:  What was the insect doing?	Location:					
Other: Length: Height: Rain Sleet Snow Fog  Colors: Description:  What was the insect doing?	Observations  I observed this insect.	Season	Spring	Summer	Autumn	Winter
Description:	Other: Height:	eathe	*	_	-	Wind
What was the insect doing?	Colors:			- Carr	60.5	~~
	Description:					
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	Notes:					
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## **Monarch Butterfly**

Scientific Name	Ojibwe Name	Occurrence				TES Status			
Danaus plexippus	Memengwaa	R	В	M	А	Е	Т	S	MC

## Description

A large butterfly that is mostly orange with black on the edge of the wings and white spots. There is also black venation throughout the wings. In the caterpillar stage, they are yellow, black and white striped.

### Size

Wingspan 33/8-47/8 inches

### Habitat

In the summer, butterflies can be found in open areas such as fields, meadows, and yards. In the winter months, Monarchs migrate down to Mexico. In the summer, Caterpillars will usually be found on Milkweed plants because they feed on the leaves.

#### Food

Caterpillars feed on Milkweed leaves and adults eat nectar from plants.

## Life cycle

Monarchs complete a full metamorphosis. Eggs are laid on Milkweed plants. After hatching, they feed on the Milkweed as caterpillars. When they become large enough they become a pupa and then hatch into butterflies.





Date:	Time	e:			
Location:					
Observations	<b>8</b> 5	Spring			
	S S	la l	Summer	Autumn	Winter
I observed this insect.	Season	*	Summer	Autumn	Winter
☐ Walking or standing ☐ Flying	Seas	Sunny	Pt-cldy	Autumn	Winter
		*	*	*	**
☐ Walking or standing ☐ Flying ☐ Other:		Sunny	Pt-cldy	Cloudy	Wind
□ Walking or standing    □ Flying     □ Other:    □ Length:    □ Height:    □	Weather	Sunny	Pt-cldy	*	**
□ Walking or standing    □ Flying     □ Other:    □ Length:    □ Height:    □ Wingspan:    □		Sunny	Pt-cldy	Cloudy	Wind
☐ Walking or standing ☐ Flying		Sunny	Pt-cldy	Cloudy	Wind
Walking or standing Flying Other: Length: Wingspan: Colors: Description:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Walking or standing Flying Other: Length: Wingspan: Colors:	Weather	Sunny Rain	Pt-cldy Sleet	Cloudy	Wind
Walking or standing Flying Other: Length: Height: Wingspan: Colors: Description: What was the insect doing?	Weather	Sunny Rain	Pt-cldy Sleet	Cloudy	Wind
Walking or standing Flying Other: Length: Height: Wingspan: Colors: Description: What was the insect doing?	Weather	Sunny Rain	Pt-cldy Sleet	Cloudy	Wind



## **Orange-belted Bumblebee**

or Tri-colored Bumblebee

Scientific Name	Ojibwe Name	Occurrence	TES Status
Bombus ternarius	Aamoo (bee)	R B M A	E T S MC

## Description

First abdominal segment is covered in yellow hairs. The second and third body segments are orange and the fifth and sixth segments are black. They can be easily identified by their orange band around their midsection. Nests are made in the ground and are lined with honeypots.

#### Size

Queen length: 17-20 millimeters Male length: 9-13 millimeters Worker length: 8-13 millimeters

#### Habitat

They can be found in gardens, parks, meadows, and fields. They are commonly sighted around Aster, Milkweed and Goldenrod plants.

#### Food

They feed on honey that is created when adult bees collect pollen and nectar and bring it back to the nest and mix it with enzymes.

## Life Cycle

The only duty of a drone bee and a queen bee is to reproduce. The four stages of the Tri-colored Bumblebee is egg, larva, pupa, and then adult. Eggs are laid in the spring shortly after the Queen Bee has emerged and it takes about a month for them to become adult worker bees.

#### **Overwinter habits**

Only newly developed Queen Bees survive the winter and reproduce the next year. In April, the Queen Bee emerges from the ground and starts looking for a nest site to lay her eggs and start a new colony of bees.

Unlike Honey Bees,
Tri-colored bees
don't have a barb
On the end of their
stinger, so they can
sting repeatedly
without dying.



Date:	Time:				
Location:					
Observations	c Si	oring	Summer	Autumn	Winter
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☐ Walking or standing ☐ Flying			Dt -11-1-	Cl. 1	77.1
Other:		unny	Pt-cldy	Cloudy	Wind
Length: Height:	Weather	**	-		**
Wingspan:	We	Rain	Sleet	Snow	Fog
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What was the insect doing?					
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## Virginia Ctenucha Moth

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	ıs
Ctenucha virginica	Totowesi	R	В	M	Α	Е	Т	S	MC

## Description

A medium sized moth with a metallic blue body, gray to black wings with an orange head. They have two long black fuzzy antennas extending from their head. Theirs eyes are large and black. The caterpillar is covered in thick stiff hairs and has a black thorax and abdomen with a cream-colored subdorsal stripe and a broken, white, subspiracular stripe.

#### Size

Length: 1 inch Wingspan: 2 inches

#### Habitat

Moist open grassy fields or meadows. They can be seen flying around in the day or near lights at night. The can be seen in May-June.

#### Food

Adult moths feed on nectar from flowers. Caterpillars mostly feed on grasses and sedges.

#### **Overwinter Habits**

Caterpillar hibernate on the ground under leaf litter.

## **Life Cycle**

Two generations are produced every year. The life cycle goes through four stages like most moths. Female Moths lay eggs on the underside of leaves. Eggs hatch into caterpillars which feed on grasses and sedges. Once large enough, they become a chrysalis and then emerge as a moth.

This species of moth has adapted ways to ward off predators.
When they are caterpillars they retain toxic chemicals from the plants they eat. When they become adults, they produce ultrasonic sounds that interfere with bats. Also, the color of the adult's abdomen is a metallic blue which resembles a wasp.



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	Time:			
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Location:  Observations  I observed this insect.  Walking or standing Flying  Other:  Length: Height:	Season Sun	ing Summe:	r Autumn	Winter
Location:  Observations  I observed this insect.  Walking or standing Flying Other:  Length: Height: Wingspan:	Season	ing Summe:	r Autumn	Winter
Location:  Observations  I observed this insect.  Walking or standing Flying Other: Length: Height: Wingspan: Colors:	Neather Season Sun Ra:	ing Summe:	r Autumn	Winter
Location:  Observations  I observed this insect.  Walking or standing Flying Other:  Length:  Height:  Wingspan:  Colors:  Description:	Neather Season Ra:	ing Summe:  ny Pt-cld  in Sleet	r Autumn y Cloudy Snow	Winter
Location:  Observations  I observed this insect.  Walking or standing Flying Other: Length: Height: Wingspan: Colors:	Neather Season Ra:	ing Summe:  ny Pt-cld  in Sleet	r Autumn y Cloudy Snow	Winter
Location:  Observations  I observed this insect.  Walking or standing Flying Other:  Length:  Height:  Wingspan:  Colors:  Description:  What was the insect doing?	Neather Season Ra:	ing Summe:  ny Pt-cld  in Sleet	r Autumn y Cloudy Snow	Winter



## Mammals

Mammals come in all shapes and sizes on the reservation. They can be large like a bear to small like a mouse. Many of the mammals on the reservation are hunted or trapped for their fur or meat including Beaver, White-tailed Deer, Muskrat, Otter, Mink, and Rabbit. A growing concern for people that are hunting is lead poisoning to people or other animals. One species that is commonly affected by lead is the Bald Eagle. Every spring, Bald Eagles are brought to the Division of Resource Management with lead poisoning and eventually die. This is common in the spring and fall because hunters leave gut piles that contain lead. Bald Eagles will feed on these around hunting season or in the spring when the gut piles have thawed. Hunters and trappers are encouraged to use copper or steal shots instead of lead.

On the Leech Lake Reservation many different wildlife monitoring studies are conducted yearly including scent post surveys, winter track surveys, small mammal surveys, and rare species surveys. By conducting these surveys, we can protect the habitat for rare species and determine the population growth or decline. Surveying and monitoring these populations help determine hunting seasons and bag limits.





### What Do Mammals Eat?

**Carnivore** - An animal that feeds on the flesh of other animals for its main nutrition

**Herbivore** - An animal that feeds on plants for its main nutrition.

**Omnivore** - An animal that eats food of both plants and animal origin for its main nutrition.

### When Are Mammals Out & About?

**Diurnal** - Active during daylight hours as opposed to nighttime hours.

**Nocturnal** - Active during nighttime hours as opposed to daylight hours.

**Crepuscular** - Active during the early morning and late evening hours as opposed to day or night.



Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	ıs	
Ursus americanus	Makwa	R	В	M	Α	Е	Т	S	MC	

## Description

Usually black in color, but there are different color morphs where they can be brown, tan or cinnamon in color. Their snout is usually light brown in color and they may have brown or white markings on their chest. Their tail is short and not usually noticed.

#### Size

Length: 4½-6 feet
Tail length: 4-6 inches long
Height: 3-3½ feet tall
Weight Male: 100-900 pounds
Weight Female: 90-500 pounds

Sounds snorts, huffs, and grunts

#### **Tracks**

Hind paw is 7-9 inches long, 5 inches wide with 5 toes. Forepaw 4 inches long and 5 inches wide with 5 toes.

### Breeding

Mating season occurs June-July; Gestation period is 60-90 days. Females will produce cubs once every two years. Females undergo delayed implantation until November. 1-5 young are born in January or February while the mother is denned for the winter.

## **Life Span**

Average life span is around 10 years, but they can live up to 30.

#### Habitat

Forests, wetlands and farmlands

### Food

Omnivore; they eat berries, insects, fish, small mammals, carrion, nuts

### Signs

Scratches on tree trunks, possibly with hair on the tree from shedding their winter coat. Large scat piles that contain noticeable berries or nuts.

#### Activity

Mostly nocturnal, but they can be seen feeding during the day.



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## **Eastern Cottontail Rabbit**

Scientific Name	Ojibwe Name	00	cur	ren	се	TH	ES S	tatı	ıs
Sylvilagus floridanus	manidoo-waabooz	R	В	M	Α	Е	Т	S	MC

## Description

Grayish to light brown colored body with a white chest and white tail. Long erect ears with a white spot between them on the forehead. Their nape is usually a rusty brown look. Unlike Snowshoe Hares, Cottontail Rabbits stay brown in the winter time.

#### Size

Length: 13-17 inches Tail Length: 2 inches Weight: 3 pounds

#### Sound

When caught by a predator they may make a high pitched screaming sound.

#### **Tracks**

Hind paw 4 inches long and forepaw is 1 inch long. Tracks are small and oval shaped. Forepaw fall behind the hind paw when hopping.

## **Breeding**

Mating occurs February-March; gestation is 30 days. 3-6 offspring are born up to 5 times through the summer. Within hours of giving birth the female can mate again.

**Life Span** If they survive the first year the average life span is 3 years.

#### Habitat

Yards, forests, and brush piles

### Signs

Branches low to the ground may be cut off at an angle from their sharp incisors. Small round dry scat pellets may be left on their trails.

#### Food

Herbivore; grasses, vegetables, berries, twigs, and bark.

Activity Nocturnal, crepuscular



Date:	_ Time:				
Location: Observations	c s	pring			1000 5 20
Observations			Summer	Autumn	Winter
I observed this mammal	asc	pring	Summer	Autumn	Winter
I observed this mammal.	Season	pring	*	Autumn	Winter
☐ Tracks ☐ Sounds ☐ Scat		Sunny	Summer Pt-cldy	Autumn	Winter
☐ Tracks ☐ Sounds ☐ Scat ☐ Other:	5	Sunny	Pt-cldy	*	Wind
☐ Tracks ☐ Sounds ☐ Scat ☐ Other: Height:	ither	*	Pt-cldy	Cloudy	**
☐ Tracks ☐ Sounds ☐ Scat ☐ Other:	5	Sunny	Pt-cldy	Cloudy	Wind
Tracks Sounds Scat Other: Height: Estimated Weight:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Scat Other: Height: Estimated Weight: Colors:	Weather	Gunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Scat Other:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Scat Other: Height: Estimated Weight: Colors: What was the subject doing? Description:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind
Tracks Sounds Scat Other: Length: Estimated Weight: Colors: What was the subject doing? Description:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wind





Formerly endangered; recovering and scheduled for eventual delisting.

# **Gray Wolf**

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	ıs
Canis lupus	ma'iingan	R	В	M	Α	Е	Т	S	MC

# Description

Gray in color with dark and light highlights. Some can also be all black in color. A very large bushy tail with a black tip.

### Size

Length: 4-5 feet Tail length: 15-20 inches

Height: 26 to 40 inches Weight: 55-130 pounds

#### Sounds

Barks, yelps, snarling, snapping of teeth and howling

### Tracks

Track measure  $4\frac{1}{4}$  inches long and  $3\frac{1}{2}$  inches wide. Claws may be seen and the stride is 26-30 inches.

### Breeding

Mating occurs January-February; 63-65 day gestation period. Usually 1-10 pups are born in March or April.

# **Life Span**

Average life span is 5-6 years, but can live up to 15.

### Habitat

Swamps and forested areas. The territory size of a wolf pack may cover 100 square miles or larger if food is scarce.

#### Food

Omnivore; small and large mammals, berries, grass, fish, insects, and carrion

### Signs

Scratches in the dirt. Urine scent markers on tree stumps, rocks, or logs. Scat is same as domesticated dog, but may contain bone fragments or undigested hair pieces.

### Activity

Nocturnal in the summer and diurnal in the winter.



Date:	Tim	e:			
Location:		4			
Observations	E	Spring	Summer	Autumn	Winter
I observed this mammal.	Season	-	- *	*	- <del>3%</del> -
☐ Tracks ☐ Sounds ☐ Scat				7	74.6
Other:		Sunny	Pt-cldy	Cloudy	Wind
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Colors:				4 Pa	<b>***</b>
What was the subject doing?					
Description:					
Notes:					



# Mink

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	ıs
Neovison vison	Zhaangweshi	R	В	M	Α	Е	Т	S	MC

# Description

Dark to light brown weasel with a light yellow patch on their chin. They have small rounded ears. Their legs are short and they have a long body and tail.

### Size

Length: 14-20 inches Tail length: 9 inches Weight: 2-4 pounds

### Sounds

Piercing shrieks and hisses when threatened, muffled chuckling sounds when mating.

### **Tracks**

Hind paw is  $2-3\frac{1}{4}$  inches long with 5 toes. The forepaw is about  $1\frac{1}{2}$  inches long with 5 toes. Both tracks have claw marks in them. Their stride is 12-25 inches and their tracks may end at the edge of water.

# **Breeding**

Mating season occurs January-April; 6 week gestation period. Females give birth to 3-6 young in late spring.

Life Span 1-3 years

## Habitat

Minks can be found anywhere near water. They usually den in hollowed out logs or previous cavities in the mud left by other animals.

## Food

Mostly fish frogs, ducks, crayfish, earthworms and mice.

### Signs

Minks usually leave their droppings on rocks or logs near waterbodies. You may even see them on fishing piers.

# Activity

Nocturnal and diurnal. They will hunt for several hours, then rest for hours.



Date:	Time	e:			
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<b>Observations</b>	Season	Spring	Summer	Autumn	Winter
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Tracks Sounds Scat	Ŋ	Sunny	Pt-cldy	Cloudy	Wind
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Colors:	Weather	Rain	***	3	<b>**</b>
Colors: What was the subject doing? Description:	Weather	Rain	***	3	<b>**</b>
Colors: What was the subject doing? Description:	Weather	Rain	***	3	<b>**</b>



# Muskrat



Scientific Name	Ojibwe Name	0c	cur	ren	се	TE	ES St	tati	ıs
Ondatra zibethicus	wazhashk	R	В	M	А	Ш	Т	S	MC

# Description

Compared to the American Beaver, muskrats are much smaller with longer narrower tails. They are all brown in color and have small eyes and ears. They have webbed feet and spend most of their time in or near water.

#### Size

Length: 8-13 inches Tail length: 7-12 inches Height: 5 inches Weight: 2-4 pounds

### Sounds

The only sound really made is by the chewing sound while eating.

### Tracks

Hind paw 2-3½ inches long with an elongated heal. Forepaw is about half the size. 5 toes on each foot.

# **Breeding**

Mating April-August; 25-30 day gestation period. 6-7 young produced 2-3 times per year.

# **Life Span**

1-5 years

### Habitat

Ponds, lakes, ditches, marshes, streams and small rivers

### Food

Mostly herbivore; roots, cattails, bulrush shoots, dead fish, crayfish, clams, snails, and aquatic plants

### Signs

Muskrats build a lodge made of aquatic vegetation and mud.

# Activity

Nocturnal, crepuscular; active year-round



Date:	Time:_	2.38			
Location:					
Observations	Sp Sp	ring	Summer	Autumn	Winter
I observed this mammal.	Season	*	- *	*	- <del>XX</del>
Tracks Sounds Scat		unny	Pt-cldy	Cloudy	Wind
Other:		willy _	Pt-Clay	4000	WING
Length: Height:	Weather	3115	Class		~~
Estimated Weight:	Me We	Rain	Sleet	Snow	Fog
Colors:				0.0	22
What was the subject doing?					
Description:					
Notes:					
	324	210000			



# **Northern River Otter**

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES St	tatı	ıs
Lontra canadensis	Nigig	R	В	M	Α	Е	Τ	S	MC

## Description

A long and slender dark brown body with a light brown belly and chest. Small ears and eyes. Long thick tail that tapers at the end. Short snout with long white whiskers. They have webbed feet and are usually seen in or around water.

#### Size

Length:  $2\frac{1}{2}$  -  $3\frac{1}{2}$  inches Tail length: 13-19 inches Weight: 10-20 pounds

### Sounds

Grunts, growls and snorts during play and a loud, crying noise when threatened.

### **Tracks**

Hind paw 3½ inches, forepaw slightly smaller. Round tracks with 5 toes on each food. 12-24 inch stride.

## **Breeding**

Mating occurs March-April; 200-265 day gestation period. 1-6 offspring are born in March or April and the females may mate only days after giving birth.

### **Life Span**

6 years, but they can live up to 20

#### Habitat

Rivers, streams and lakes

### Food

Carnivore; insects, fish, crayfish, frogs, small mammals, clams, and turtles

### Signs

Slides in the snow from them sliding down hills on their stomach. Scat is brown with short segments and may contain fish or crayfish parts.

### Activity

Diurnal, nocturnal; active year-round



Date:	Time:			
Location:				
Observations	Sprin	ng Summer		Winter
Observations  I observed this mammal.	Spring	ng Summer		
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# **Porcupine**

Scientific Name	Ojibwe Name	00	cur	ren	.ce	TE	ES S	tatı	ıs
Erethizon dorsatum	Gaag	R	В	M	Α	Е	Т	S	MC

# Description

Brown body covered with long white hairs and quills. Short legs and a long tail. Eyes and ears are small and dark. Usually slow moving.

### Size

Length: 20-25 inches Tail length: 5-10 inches Height: 6-12 inches Weight: 10-30 pounds

### Sounds

Loud shrill screeching sounds during mating.

### Tracks

Hind paw 3 inches long. The forepaw is 2-2½ inches long. 5 toes on back feet and 4 on front feet. Tracks are oval shaped and claw marks should be visible. Tail drag marks may also be noticeable.

## **Breeding**

Mating occurs October-November; 7 month gestation period. Female in estrus for 8-12 hours. 1 offspring produced in May or June. Young are born with quills, teeth erupted and eyes open.

Life Span 5-10 years in the wild

### Habitat

Deciduous and coniferous forests

#### Food

Herbivore; nuts, berries, bark, leaves, and buds

## Signs

Large chunks of bark gnawed off the trunk of a tree. Chew marks on buildings, wooden handles, canoe paddles. Large piles of scat pellets at the base of a large tree.

### Activity

Nocturnal, crepuscular; Active year-round



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What was the subject doing?					
Description:					
Notes:					





# Raccoon

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES St	tatı	ıs
Procyon lotor	Esiban	R	В	M	Α	Е	Т	S	MC

# Description

Usually grey and brown. Distinct black markings around the eyes. Tail is long and bushy with 4-6 black and grey bands.

### Size

Length: 24-25

Tail length: 10-15 inches Height: 9-12 inches tall Weight: 10-30 pounds

### Sounds

Snarls, growls and hisses

### **Tracks**

Hind paw is  $3\frac{1}{2}$ - $4\frac{1}{2}$  inches long with 5 toes and claw marks, forepaw  $2\frac{1}{2}$ -3 inches long with a heel and 5 toes. Stride 8-20 inches.

### **Breeding**

Mating occurs February-June; 54-65 day gestation. 3-6 young born in May. Female in estrus for only 3-6 days.

# Life Span

Average 5 years

### Habitat

Found in all types of habitats.

### Food

Omnivore; crawfish, fish, clams, reptiles, nuts, berries, birdseed, bird eggs, insects, and carrion

### Signs

Partially digested berries that are on a rock or log. Broken crawfish pieces along the water's edge or opened clam shells.

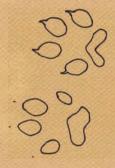
# Activity

Nocturnal; active year-round

Raccoons don't have salivary glands so they will put their food in water before eating it.



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Tracks Sounds Scat	Seaso	unny	Pt-cldy	Cloudy	Wind
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# **Red Fox**

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	ıs
Vulpes vulpes	waagosh	R	В	M	Α	Е	Т	S	MC

# Description

Most commonly they have reddish colored bodies, but there are different color morphs including dark colored morph and silver morph which have more black on them. Their ears are large with a white inside and black on the outside. Their jowls, chest, belly and tip or tail are usually white. Their legs are black and they have a bushy tail.

### Size

Length: 25 inches Tail length: 13-17 inches Height: 15 inches Weight: 8-15 pounds

#### Sounds

High-pitched squeals and screams, yelps, cries, and barks.

### **Tracks**

Forepaw is 2 inches long. The hind paw is slightly smaller and the tracks are oval shaped. Stride is 12 inches when walking.

# **Breeding**

Mating occurs in February; 50 day gestation period. 1-10 offspring are born in April or May.

# Life Span

5-10 years

### Habitat

Coniferous and hardwood forests, cities, prairie, and farmland

### Food

Omnivore; mice, rabbits, snakes, berries, nuts, seeds, fruits, fish, insects, and carrion

### Signs

Scat is cylindrical and may contain undigested berries or hair and bone pieces.

# Activity

Mostly nocturnal, crepuscular



Date:	_ Tim	e:			
Location:					
Observations	e o	Spring	Summer	Autumn	Winter
I observed this mammal.	Season	-	- *	*	*
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# White-tailed Deer

Scientific Name	Ojibwe Name	00	cur	ren	се	TE	ES S	tatı	us
Odocoileus virginianus	Waawaashkeshi	R	В	Μ	Α	Е	Т	S	MC

# Description

In the winter months, their coat will be a greyish brown color and in summer months it will change to a reddish brown. Their tail is brown with a black tip and a white underside. When alarmed they will flash the white of their tail. Males grow antlers throughout the summer and shed them in winter.

### Size

Length: 4-7 feet Height to shoulder: 3-4 feet Tail length: 10 inches Male Weight: 100-300 pounds Female Weight: 75-200 pounds

### Sounds

Snorts, grunts, and bleats

### Tracks

Front hoof 2-3 inches long, hind hoof slightly smaller. The hoof tracks are heart shaped.

# **Breeding**

Mating season occurs late Oct.-Nov.; 6-7 month gestation. 1-2 fawns born in May or June. Newborns are covered with white spots.

**Life Span** Average 2-3 years; very few deer live past 10 in the wild.

**Habitat** Can be found in all habitat types.

**Food** Herbivore; Grasses, acorns, mushrooms, nuts, corn, leaves apples in summer, twigs and buds in winter

### Signs

Tree rubs from males rubbing velvet off antlers. Scrapes in the fall from males marking their territory for breeding season. Browsed twigs that are torn off. Round depressions in the snow from bedding or scat pellets.

### Activity

Nocturnal, crepuscular; active in late afternoon throughout the night



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Tracks Sounds Scat	Seaso	unny	Pt-cldy	Cloudy	Wind
☐ Tracks ☐ Sounds ☐ Scat ☐ Other:	ther Seaso	*	Pt-cldy	*	**
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# Ojibwe Words For Plant Parts

Flower(s) - Waabigwan(iin) Leaf(s) - Aniibish(an) Root(s) - Ojiibik(an) Stem(s) - Shiizhins(an)

# Plants

From open fields to thick forests, a large variety of plants can be found on the Leech Lake Reservation. Some of which are edible, while others are poisonous. Some plants even have their own defense mechanisms like poison ivy which causes an allergic reaction or raspberries which have pointy thorns that poke and scratch. One of the most important plants for human consumption on the reservation is Wild Rice. This high protein food has been eaten for centuries and makes up a large portion of the Native American diet. This plant can be harvested in August and September with a permit on the reservation. There are many other wild edible plants including raspberries, blackberries, strawberries, blueberries, dandelions, asparagus, fiddlehead ferns, leeks and many more. People are urged to use caution when gathering wild herbs though because there are some lookalike plants and berries that may be toxic.

There are many invasive species that enter the reservation every year. There are about 100 non-native plant species on the reservation. Some of the common invasive terrestrial plants to be on the lookout for include Garlic Mustard, Leafy Spurge, Common Buckthorn, Wild Parsnip, Common Tansy, and Spotted Knapweed. Some aquatic invasive species include Eurasian Watermilfoil, Curly Leaf Pondweed, and Purple Loosestrife.

### **Annual Plants**

Annual plants grow and preform an entire life cycle in one season and then die off. These plants usually have small root systems because they don't have as much time to grow extensive root systems.

### **Perennial Plants**

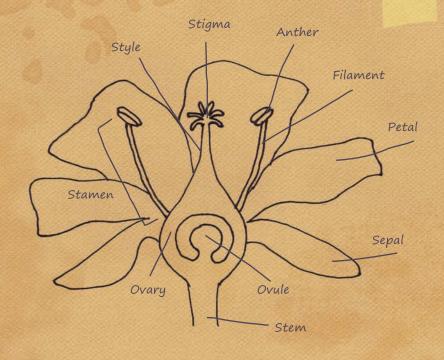
Perennial plants last many years and have extensive root systems that shoot up new plants each year.







Flower Parts





# Black-eyed Susan

Scientific Name	Ojibwe Name	Life Cycle	TE	ES St	tatı	ıs
Rudbeckia hirta	Wezawab-gonik	Annual	Е	Т	S	MC

### Size

Height: 1-3 feet tall

# **Leaf Description**

Leaves are usually slender but may vary in shape and range. Leaves are usually 2-7 inches long and up to 2 inches wide. Leaves and stems are covered in white stiff hairs.

# **Flower Description**

Yellow flowers with long petals and a dark brown center. Flowers can reach 2-3 inches across and each flower contains 8-20 petals. The center of the flower protrudes out and is a dark brown in color. Blooming season is June - October.

### Seeds

Tiny seeds 1/16 inch long

# Habitat

Can be found in most sunny locations including fields, open woods or along ditches.





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# **Common Milkweed**

Scientific Name	Ojibwe Name	Life Cycle	TE	ES S	tatı	us
Asclepias syriaca	Zhaabozigan	Perennial	Е	Т	S	MC

#### Size

Height: 2-5 feet tall

# **Leaf Description**

Leaves are oblong shaped with a pointed tip. They measure 8 inches long and 3 inches wide. Leaves are toothless with fine hairs on the underside and attached in an opposite arrangement. When leaves are broken, a white sticky sap oozes out.

# **Flower Description**

2 inch round clusters of pinkish-white flowers that arise from the leaf axis. Each flower is ½ inch long with a 5 parted crown and 5 downward facing petals. Blooming season is June-August.

### Fruit

Green bumpy seed pods about 5 inches long can be seen near the top of the plant. Many brown seeds with fuzzy parachutes are released when pods crack open.

### Habitat

Can be found in wet or dry fields, along shores, or on the edges of woods.

Milkweed is an important part of the Monarch Butterflies life. The leaves are the main food source for Monarch caterpillars and these are the only plants Monarchs will lay their eggs on.

Milkweed is declining because of herbicide use.



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Location:  Observations  I observed this plant.	Season				
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Location:  Observations  I observed this plant.  Estimated Height:  Leaf Description:  Flower Description:	Weather	Spring	Summer Pt-cldy	Autumn	Winter





# **Fireweed**

Scientific Name	Ojibwe Name	Life Cycle	TE	ES S	tatı	ıs
Epilobium angustifolium	Ozhaashijiibik	Perennial	Е	Т	S	MC

# **Average Size**

Height: 3-7 feet tall

### **Leaf Characteristic**

Leaves are 2-8 inches long and up to 2 inches wide. Mostly toothless and wavy with a tapered pointy tip. Midrib is colored white.

### Flower

Flowers grow in a spike like cluster at the top of the plant. Purple flowers are 1 inch across with 4 petals. There are 8 long white stamen at the center of each flower. Flowers bloom from July-August.

### Seeds

A slender upright pod that contains seeds. When ripe the pod will turn purple and peel open like a banana releasing all the small brown seeds to float away in the wind.

### Habitat

Can be found in moist soils in shade or sun. Commonly found in forests or clearing edges.



Fireweed is used as traditional
Ojibwe medicine, usually in
the form of a poultice, to treat
any kind of inflammatory
bruises or cuts.

# **Field Notes**



Date:	Tim				
Location:	STATE OF STREET	le			
Observations  I observed this plant.	Season	Spring	Summer	Autumn	Winter
Estimated Height: Leaf Description:		Sunny	Pt-cldy	Cloudy	Wind
Flower Description:		Rain	Sleet	Snow	Fog
Notes:					
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					70550050



# **Lowbush Blueberry**

Scientific Name	Ojibwe Name	Life Cycle	TE	IS S	tatı	ıs
Vaccinium angustifolium	Miinagaawanzh	Perennial	П	Т	S	MC

# **Average Size**

Height: ½-2 inches

# **Leaf Description**

Stalks are woody with alternate leaves that are  $\frac{3}{4}$ - $1\frac{1}{2}$  inches long and  $\frac{1}{2}$  inch across. Leaves are elliptical shaped, leathery to the touch and have serrated margins.

## **Flower Description**

Small clusters of white bell shaped nodding flowers that are ¼ inch long with fused petals. Blooming season is late spring and into early summer.

### Fruit

A round berry that is ½-⅓ inch diameter with a waxy blue coating

### Habitat

Can be found in sunny or shady areas with rocky or sandy soils. Frequently found in bogs or along the edges of wetlands.



The longest word in Ojibwe is "Miin-aan baash kiminisij-i-gan bitooyin sij-i-gan-i bukwayszhiigan" which translates to blueberry pie in English.

# **Field Notes**



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lotes:					



# Marsh Marigold or Cowslips

Scientific Name	Ojibwe Name	Life Cycle	TE	TES Status			
Caltha Palustris	Waabigoniin	Perennial	Е	$\vdash$	S	MC	

## Size

Height: 8-24 inches tall

# **Leaf Description**

Leaves are round with a deep heart shape at the base. They can reach up to 4 inches long on 2-6 inch long stalks. Leaf edges are toothless but are scalloped.

# **Flower Description**

2-5 bright yellow flowers that grow on a stalk that is slightly above the leaves. Each flower usually contains 5 petals that are  $1-1\frac{1}{2}$  inches long. Blooming season is April-May.

### Fruit

Fruit is a curved capsule called a follicle that is about 3% inches long. The follicle starts out green and erect and as it matures it changes to a brownish green color and splits to allow the seeds to fall out.

#### Habitat

Can be found in moist to wet soils including ditches, swamps, bogs, marshes, and wet woodlands.



# **Field Notes**



Date:	Tim	e:			
Location:					
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I observed this plant.	Season		**	*	-33
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			8,4		



# **Red Columbine**

Scientific Name	Ojibwe Name	Life Cycle	TH	TES Status			
Aquilegia canadensis	Misudidjeebik	Perennial	Е	Т	S	MC	

### Size

Height: 1-3 feet tall

# **Leaf Description**

Compound leaves in groups of 3 that alternate on the stem. Leaflets are 2½ inches long and are lobed in 2 or 3 segments with rounded tips.

# **Flower Description**

Branching cluster of nodding bell shaped flowers at the top of the plant. Each 1-2 inch flower has 5 yellow petals that are rolled into a column with 5 red sepals surrounding them.

### Fruit

5-7 erect green capsules that measure  $\frac{1}{2}$ -1 inch in length. When mature that capsules split down the sides and release the seeds.

#### Habitat

Can be found in rocky areas, cliffs, bluffs, and in gardens.



# Field Notes



Date:		ne:			
Location: Observations		Spring	Summer	Autumn	Winter
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Estimated Height:  Leaf Description:  Flower Description:	Weather	Rain	- <b>**</b> ****	5	<b>**</b>
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Estimated Height:  Leaf Description:  Flower Description:	Weather	Rain	- <b>**</b> ****	5	<b>**</b>
Estimated Height:  Leaf Description:  Flower Description:	Weather	Rain	- <b>**</b> ****	5	<b>**</b>
Estimated Height:  Leaf Description:  Flower Description:	Weather	Rain	- <b>**</b> ****	5	<b>**</b>



# Showy Lady's Slipper

Scientific Name	Ojibwe Name	Life Cycle	TH				
Cypripedium reginae	Agobizowin	Perennial	Е	Т	S	MC	

# **Average Size**

Height: 10-17 inches tall

# **Leaf Description**

4-12 elliptical shaped leaves that are 5-10 inches long with wavy edges and longitudinal veins. Clumps of 20 or more stems may grow out of a single rhizome.

# **Flower Description**

1 or 2 white flowers with pink streaking can be found at the top of each stem. Each inflated flower measures 1-2 inches long. Blooming season is June and July. It may take 4-16 years to produce first flowers.

### Seed

Each year a Lady's Slipper may produce a half million small seeds that are as fine as flour dust.

## Habitat

Can be found in partly shaded areas that have moist soil including moist prairies, bogs, ditches, fens, sedge meadows, or cool dark woods.

The Showy Lady's
Slipper is the
Minnesota State flower.
These flowers grow to be
very old, some as old
as 100 years or more.

Without a permit it is illegal to pick these or dig them up.



Date:	Tim	ne.			
Location:					
Observations	_	Spring	Summer	Autumn	Winter
☐ I observed this plant.	Season		<b>344</b>	**	377
	Š		2115	7	**
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	Weather	Rain	Sleet	Snow	Fog
Flower Description:	>			- M	2~6
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					100



# **Water Lily**

Scientific Name	Ojibwe Name	Life Cycle	TE	TES Status			
Nymphaea odorata	Nabagashk	Perennial	Н	Т	S	MC	

### Size

Can be found in water up to 8 feet deep.

# **Leaf Description**

Leaves can be seen floating on the water's surface. They are round with a large slit at the base and have a 4-12 inch diameter. Leaves are green, smooth, shiny, toothless and attached to a long stem.

# **Flower Description**

Large white flower with a 3-6 inch diameter and 20-30 petals with many yellow stamen. Flowers can be seen floating on the surface of the water. They open in the day and close at night and are fragrant smelling. Will be in bloom from July through September.

### Fruit

Fruit is berry-like and contains small oval seeds 1/8-1/4 inch in size.

### Habitat

Can be found in shallow water with mucky soil in lakes, rivers, wetlands, and ponds where large amounts of sunlight can reach. They grow in large colonies along the water's edge.





Date:	Tim	ne:			
Location:					
Observations	u	Spring	Summer	Autumn	Winter
I observed this plant.	Seaso		*	*	X
Estimated Height:		Sunny	Pt-cldy	Cloudy	Wind
_eaf Description:	ther	Sulliy	Pt-city	Cloudy	***
Flower Description:	Weather	Rain	Sleet	Snow	Fog
Notes:					
Notes:					
Notes:					



# **Wild Rice**

Scientific Name	Ojibwe Name	Life Cycle	TE	TES Status		
Zizania aquaticus	Manoomin	Annual	Е	Т	S	MC

### Size

Height: 3-8 feet tall

# Description

Grows in wetlands, lakes, and rivers, in 3 inches to 10 feet of water. In late spring and early summer, the leaves will be ribbon like and will be floating on the surface of the water.

# **Leaf Characteristics**

Leaves are long and ribbon like, about 3-4 feet long and approximately ½-2 inches wide with sharply toothed margins.

### **Flower**

In bloom from July-September. Flowers are monoecious meaning that male and female flowers can be found on the same plant. Pollination occurs from the wind.

### Seed

Ovoid grains are yellow to red in color. The seeds ripen in September-October, at which time they can be harvested.

## Habitat

Can be found in marshes, ponds, edges of rivers and lakes. Found in areas of calm water with mucky soils.

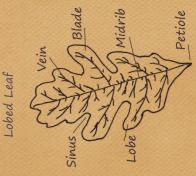


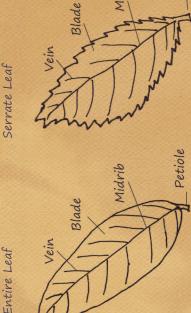


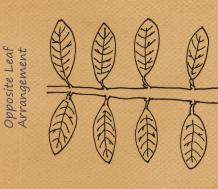
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ocation:			WILLS CON		
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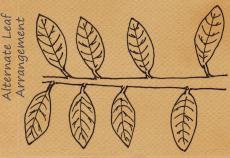




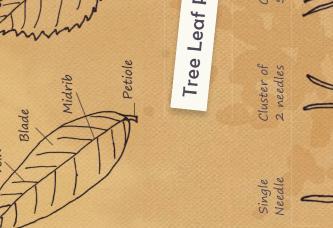














Trees play an important role in the ecosystem, whether it be a giant White Pine or a dead Maple Tree. Course woody debris (fallen dead trees) plays an important ecological role. These trees begin to decay and give back vital nutrients to the ecosystem which allows more trees and plants to thrive. Standing trees (snags)also provide food for animals such as porcupines, shelter for mammals and amphibians, homes for woodpeckers and owls, or nesting spots for songbirds and raptors. There is some concern for trees though, due to invasive species and disease. The Emerald Ash Borer has been documented in Minnesota and targets Ash Trees. Because of this threat, people are urged not to transport wood far distances. Some tree pathogens include Bur Oak Blight, Dutch Elm Disease, and Oak Wilt.

There are two main groups of trees, coniferous and deciduous. Coniferous trees are trees with evergreen needles that stay on the tree year round. These types of trees produce cones that house the seeds. The only coniferous tree that doesn't follow these rules is Tamarack. This tree has needles and cones, but it loses its needles in winter. Deciduous trees have leaves that are usually dropped every fall. Red Oaks are deciduous trees that do not loose their leaves in the winter. Leaves on the branches may be arranged in two different ways, opposite or alternate. Opposite leaf arrangements mean that the base of the leaves are directly across from each other. Alternate leaf arrangements means that the base of the leaves are spaces out throughout the branch. They are not directly across from each other, but alternate along the branch.

In May, the Division of Resource Management has a tree and shrub giveaway. Enrolled members are encouraged to stop by and pick up free trees and shrubs to plant at home.



# **Balsam Fir**

Scientific Name	Ojibwe Name	Tree Group	TE	TES Status			
Abies balsamea	zhingob	Coniferous	Е	Т	S	MC	

# Tree

Trunk tapers near the top of the tree with horizontal branching from the ground up. Tree has an aromatic scent.

### Size

Height: Up to 60 feet Diameter: 20 inches

# **Bark Description**

Smooth grayish brown with blisters of sap.

# **Needle Description**

Single needle that is ½-1 inch long and has a spiral arrangement on the twig. The needles are soft, blunt-tipped, flat, green on the top and silvery on the bottom. If the needles are rolled between your fingers they feel flat.



### Fruit/Seed

Bluish colored cone that is erect on the branch. Cone is 2-4 inches long with dense clusters near the top of tree.

### Habitat

Moist soils, shaded forest, and along bogs.

## **Fall Color**

Stays green throughout winter.



# **Field Notes**



Date:	Tim	ie:			
Location:					
Observations	F	Spring	Summer	Autumn	Winter
I observed this tree.	Season		-*	*	- <del>3%</del> -
Height: Diameter:					34.6
Bark Description:		Sunny	Pt-cldy	Cloudy	Wind
	Weather	禁			***
Noodle Description:	Nea	Rain	Sleet	Snow	Fog
Needle Description:				<b>*</b>	<b>**</b>
Needle Type: Single Cluster of_			Bund	:h	
Notes:					
				802 36	100 mg (100 mg)



# **Eastern White Pine**

Scientific Name	Ojibwe Name	Tree Group	TE	ES S	tatı	ıs
Pinus strobus	Zhingwaak	Coniferous	Е	Т	S	MC

### Tree

A single trunk with horizontal whorls of branches.

## Size

Height: 80-100 feet Diameter: 40 inches

# **Bark Description**

Thin smooth green colored bark on young pine trees. Thick and rough with a brownish color on older trees.

## **Needle Description**

Needles are 2½-5 inches long. They occur in bundles of 5 and are flexible.

# Fruit/Seed

Cones are 5-8 inches long and cylindrical shaped. Each scale on the cones contains two small winged seeds. Cones usually are resin coated and sticky to the touch.

### Habitat

They can survive in a wide variety of soil types from dry and sandy to moist areas.

## **Fall Color**

Stay Green throughout winter.







Date:	_ Tim	e:			
Location: Observations	1000				
Observations	e e	Spring	Summer	Autumn	Winter
I observed this tree.	Season	Spring	Summer	Autumn	
I observed this tree.  Height: Diameter:  Bark Description:		Spring	Summer Pt-cldy	*	
I observed this tree.  Height: Diameter:		*	Pt-cldy	*	Winter
☐ I observed this tree.  Height: Diameter:  Bark Description:  Needle Description:  Needle Type: ☐ Single ☐ Cluster of	Weather	Sunny	Pt-cldy	Cloudy	Winter
I observed this tree.  Height: Diameter:  Bark Description:  Needle Description:	Weather	Sunny	Pt-cldy Sleet	Cloudy	Winter
☐ I observed this tree.  Height: Diameter:  Bark Description:  Needle Description:  Needle Type: ☐ Single ☐ Cluster of	Weather	Sunny	Pt-cldy Sleet	Cloudy	Wint



# **Jack Pine**

Scientific Name	Ojibwe Name	Tree Group	TE	ES S	tatı	ıs
Pinus banksiana	Okikaandag	Coniferous	Е	Т	S	MC

### Tree

Single trunk with many dead branches and a very open irregular crown.

# Size

Height: 60 feet Diameter: 8 inches

## **Bark Description**

Reddish gray to black in color with many loose scales.

# **Needle Description**

Clustered needles with 2 needles per cluster that are  $\frac{3}{4}$ - $\frac{1}{2}$  inches long. Needles are widely forked, stiff, slightly twisted and pointy.



# Fruit/Seed

Strongly curved 1-1½ inches cones. Each cone contains small winged triangular seeds.

## Habitat

Dry, sandy or rocky soils. They need direct sunlight to grow.

## **Fall Color**

Stays green throughout winter.



# Field Notes



Date:	Tim	ne:			
Location:					
Observations	u <sub>o</sub>	Spring	Summer	Autumn	Winter
☐ I observed this tree.	Season	*	*	*	**
Height: Diameter:		Sunny	Pt-cldy	Cloudy	Wind
Bark Description:	<u>.</u>	- WE	3116c		~~
	Weather	ZAN		Section 1	~~~
Needle Description:	We	Rain	Sleet	Snow	Fog
				0.0	***
Needle Type: Single Cluster of			Bunc	h	
Notes:					
					8
					2
					3



# **Northern Red Oak**

Scientific Name	Ojibwe Name	Tree Group	TH	ES S	tatı	us
Quercus rubra	Mitigomizh-iig	Deciduous	Е	Т	S	MC

### Tree

Single straight trunk with a broad round crown.

## Size

Height: up to 80 feet tall Diameter: 36 inches

## **Bark Description**

Smooth dark grey bark on young tree. Older trees have thick brown bark that is broken by shallow fissures into regular, flat, smooth surfaced vertical plates

## **Leaf Description**

Leaves have 7-11 lobes and are 4-9 inches long. The end of each lobe has several pointy tips. The sinuses only cut halfway to midrib.

### Fruit/Seed

A large bitter <sup>3</sup>/<sub>4</sub>-2 inch acorn that matures the second year. The base is flat with a dark brown cap.

## Habitat

Dry soil types

### **Fall Color**

Red to brown





Data	Time
Date: Location:	_ Time:
Observations  I observed this tree.	Spring Summer Autumn Winter
Height: Diameter: Bark Description:	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog
Leaf Description:	Rain Sleet Snow Fog
Leaf Type: Lobed Compound  Leaf Arrangement: Opposite Alt  Notes:	ternate



# **Northern White Cedar**

Scientific Name	Ojibwe Name	Ojibwe Name Tree Group		TES Status				
Thuja occidentalis	Giizhik	Coniferous	Е	Т	S	MC		

### Tree

Compact pyramid shaped tree with single or multiple trunks that are often twisted. Branches are short and horizontal.

### Size

Height: 50-60 feet Diameter: 20-36 inches

# **Bark Description**

Gray to reddish brown in color. Vertical fibrous shredded looking strips of bark may be hanging on the tree.

# **Needle Description**

Green scale-like needles that are 1-2 inches long. They branch out to form flat shaped branches. Very aromatic scent when crushed or broken.

### Fruit/Seed

A green cone that turns light brown when mature that is half and inch long in upright clusters. Each cone contains many 2 tiny winged seed.

### Habitat

Can be found in moist or wet sandy soils.

### **Fall Color**

Stays green throughout winter.



# **Field Notes**



Date:	_ Tim	ne:			
Location:					
Observations	uo	Spring	Summer	Autumn	Winter
I observed this tree.	Season	*	-*	*	**
Height: Diameter:		Sunny	Pt-cldv	Cloudy	Wind
Bark Description:	_	- Summy	10 010g		~~
	Weather	3,15	Clark	Cus	~~~
Needle Description:	We	Rain	Sleet	Snow	Fog
				000	**
Needle Type: Single Cluster of_			Bund	ch	
Notes:					
Notes.					



# **Paper Birch**

Scientific Name	Ojibwe Name	Tree Group	TE	ES S	tatı	ıs
Betula papyrifera	Wiigwaasaatig	Deciduous	Е	Т	S	MC

### Tree

Can grow alone or in clusters. Branches droop down. When Paper Birch grow in clusters it is a result of logging.

### Size

Height: 70 feet tall Diameter: 20 inches

# **Bark Description**

Thin papery bark that is light grey in color with pore holes, but changes to white with age of tree. Bark separates into sheets that may be rolled up or curled.

## **Leaf Description**

Simple 2-3 inch overall shaped leaf. The teeth on the leaves are irregularly serrated. The end comes to a point and the base is rounded.

### Fruit/Seed

A cone shaped nutlet that contains many small seeds. Nutlets are grouped in a 1 inch catkin that ripens in August and September.

# Habitat

Moist soils

# **Fall Color**

Light yellow



# **Field Notes**



Date:	Timo:
	Tillle.
Location:  Observations	
Location:	
Location: Observations	Spring Summer Autumn Winter
Location:  Observations  I observed this tree.	Sunny Pt-cldy Cloudy Wind
Location:  Observations  I observed this tree.  Height: Diameter:  Bark Description:	Sunny Pt-cldy Cloudy Wind
Location:  Observations  I observed this tree.  Height:  Diameter:  Bark Description:	Spring Summer Autumn Winter  Sunny Pt-cldy Cloudy Wind
Location:  Observations  I observed this tree.  Height:  Bark Description:  Leaf Description:	Sunny Pt-cldy Cloudy Wind
Location:  Observations  I observed this tree.  Height:  Bark Description:	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog  Smooth Serrate
Location:  Observations  I observed this tree.  Height: Diameter:  Bark Description:  Leaf Description:  Leaf Type:	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog  Smooth Serrate
Location:  Observations  I observed this tree.  Height: Diameter:  Bark Description:  Leaf Description:  Leaf Type:	Sunny Pt-cldy Cloudy Wind  Rain Sleet Snow Fog  Smooth Serrate



# **Quaking Aspen**

Scientific Name	Ojibwe Name	Tree Group	TE	IS St	tatı	ıs
Populus tremuloides	Azaadi	Deciduous	Е	Т	S	MC

### Tree

Medium sized tree with a single straight slender trunk, lacking side branches, round crown.

### Size

Height: 65 feet Diameter: 12-24 inches

# **Bark Description**

Dark gray in color and deeply furrowed lower on the tree and changes to white and smooth on the upper part of the tree.

# **Leaf Description**

Simple round leaves 1-3 inches in length alternating on the branches. They come to a short sharp point and are finely toothed.

### Fruit/Seed

Catkin-like fruit that are 4 inches long. It is composed of many small green capsules that are ½ inch long. These open and release seeds that are attached to cottony material that float away.

## Habitat

Wet or dry sandy soils

# **Fall color**

Golden yellow



# **Field Notes**



Date:	Time:
Location:	
Observations	Spring Summer Autumn Winter
I observed this tree.	1 0000
Height: Diameter:	Sunny Pt-clay Cloudy Wind
Bark Description:	a
	Rain Sleet Snow Fog
Leaf Description:	3
Leaf Type:	Smooth Serrate
Leaf Arrangement: Opposite Alt	ernate
Notes:	



# **Red Maple**

Scientific Name	Ojibwe Name			ES St	Status		
Acer rubrum	Aninaatig	Deciduous	Е	Т	S	MC	

### Tree

Medium sized tree with a single trunk and a narrow dense crown.

## Size

Height: 65 feet tall Diameter: 24 inches

## **Bark Description**

Gray, smooth, broken by narrow irregular cracks

# **Leaf Description**

Leaf has 3-5 lobes and is 3-4 inches long. It is attached in an opposite arrangement along the branch. There are notches in between lobes with a double toothed margin.

### Fruit/seed

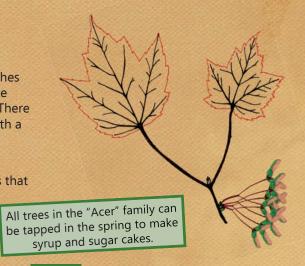
Pair of 1 inch long winged seeds that are red in the summer time.

### Habitat

Can be found in wet to moist soils. Seen along wetlands or depressions that hold water.

## **Fall Color**

Red to orange



# **Field Notes**



Date:	Tim	e.			
Location:					
Observations	ے	Spring	Summer	Autumn	Winter
I observed this tree.	Season	a Mis	*	*	X
Height: Diameter:	S			7	*AR
Bark Description:		Sunny	Pt-cldy	Cloudy	Wind
	Weather	禁			**
Leaf Description:	Wea	Rain	Sleet	Snow	Fog
			-35	4 F	***
Leaf Type: Lobed Compound  Leaf Arrangement: Opposite Alt  Notes:	erna	te	Serrat	e	



# **Red Pine**

Scientific Name	Ojibwe Name	Tree Group		ES St	Status			
Pinus resinosa	Apakwanagemag	Coniferous	Е	Т	S	MC		

### Tree

Single straight trunk, lower branches turn brown and die off. The crown is round and broad.

### Size

Height: 40-80 feet tall Diameter: 30-40 inches

# **Bark Description**

Reddish brown and becoming redder near the top of the tree. There are many flat scales.

# **Needle Description**

2 needles per cluster that are 4-6 inches long. Needles break when bent.



## Fruit/Seed

Cones are brown and 2 inches long containing small seeds that are about ½ inch wings and are scattered by the wind.

### Habitat

Usually found in dry sandy soil types. Needs direct sunlight.

# **Fall Color**

Stay green throughout winter.



# **Field Notes**



Date:	Time:
Location:	
Observations	Spring Summer Autumn Winter
I observed this tree.	Spring Summer Autumn Winter
Height: Diameter:	Sunny Pt-cldy Cloudy Wind
Bark Description:	
	Rain Sleet Snow Fog
Needle Description:	A Main Siece Show Fog
Needle Type: Single Cluster of_ Notes:	



# White Spruce

Scientific Name	Ojibwe Name	Tree Group		TES Status			
Picea glauca	Gaawaandag	Coniferous	Е	Т	S	MC	

## Tree

Straight single trunk with many horizontal branches.

## Size

Height: Most grow to 60 feet tall but can get up to 100 feet tall Diameter: 24 inches

# **Bark Description**

Dark brown and scaly

# **Needle Description**

Single needles that are ½-¾ inches long. They are stiff, pointed and aromatic when crushed. Needles are blueish green in color.



## Fruit/Seed

2 inch slender brown cone. Cone scales are soft and flexible.

## Habitat

Can be found in shady areas with dry or moist soils.

# **Fall Color**

Green throughout winter.



# **Field Notes**



			0027736	
Date:	Time:			
Location:				
Observations	Spring	Summer	Autumn	Winter
I observed this tree.				WIIICCI
	Season	<b>**</b>	*	***
Height: Diameter:		Pt-cldy	Cloudy	Wind
	Sunny	Pt-cldy	Cloudy	**
Height: Diameter:	Sunny	Pt-cldy Sleet	Cloudy	**
Height: Diameter:	Sunny	_	3	Wind
Height: Diameter:  Bark Description:  Needle Description:	Sunny	_	Snow	Wind
Height: Diameter:	Neather Rain	Sleet	Snow	Wind
Height: Diameter:  Bark Description:  Needle Description:  Needle Type: Single Cluster of	Neather Rain	Sleet	Snow	Wind
Height: Diameter:  Bark Description:  Needle Description:  Needle Type: Single Cluster of	Neather Rain	Sleet	Snow	Wind
Height: Diameter:  Bark Description:  Needle Description:  Needle Type: Single Cluster of	Neather Rain	Sleet	Snow	Wind

# **Terms and Definitions**

**Berry** - A fleshy fruit with several seeds within.

**Catkin** - A scaly cluster of usually same sex flowers.

**Carrion** - Dead or decaying flesh. Carrion is a significant food source for many animal species.

**Carnivore** - An animal such as a mink, fox or wolf that eat the flesh of other animals for its main nutrition.

**Clustered needles** - A group of needles emanating from a central point, usually within a papery sheath, as in pine trees. **Crepuscular** - Active during the early

**Crepuscular** - Active during the early morning and late evening hours as opposed to day or night.

**Delayed Implantation** - The embryo does not immediately implant in the uterus, but is maintained in a state of dormancy.

**Diurnal** - Active during daylight hours as opposed to nighttime hours.

**Endangered Species**- Seriously at risk of extinction.

**Estrus** - A state of sexual readiness in most female animals that immediately precedes ovulation. The time when females are more receptive to mating.

Extinct - Having no living members.

**Extirpate** - Lost from an area.

**Follicle** - A dry seed vessel, or pod, consisting of a single carpel, splitting at maturity only along the front part of the suture.

**Game Fish** - A fish species regulated by laws for recreational fishing.

**Gestation** - Pregnancy. The period of development in the uterus of a mammal from conception to birth.

**Herbivore** - An animal that feeds on plants. **Invasive** - Alien species that show a tendency to spread out of control and cause harm.

**Leaf Lobes** - A roundish projection or division, as of a leaf.

Margin - The edge of a leaf.

**Midrib** - The central vein of a leaf, often more pronounced as larger in size than other veins.

Nape - Back of the neck.

**Nocturnal** - Active during nighttime hours as opposed to daylight hours.

**Nutlet** - A small or diminutive nut or seed, usually contained in a cone or cone-like seed catkin.

**Omnivore** - An animal such as a bear that eats a wide variety of foods including plants, insects, carrion, or meat as its main nutrition.

Ovate - Shaped like an egg.

Phosphate buffered saline (PBS) - A buffer solution commonly used in biological research. It is a water-based salt solution containing sodium phosphate, sodium chloride and in some formulations potassium

**Pod** - A dry fruit that contains many seeds and opens at maturity.

**Serrate** - Having tooth-like projections pointed away from the petiole.

Scat - Fecal droppings of an animal

chloride and potassium phosphate.

**Spawning** - The process of fish reproduction. It involves females laying eggs and males fertilizing them to produce young.

**Stride** - In larger animals, the distance between individual tracks. In smaller animals like weasels, the distance between sets of tracks.

**Threatened Species** - Vulnerable to endangerment in the near future.

**Tip up** - A device used in ice fishing in which a wire attached to the rod is tripped, raising a signal flag, when a fish takes the bait.

**Thorax** - The second or middle region of the body of certain arthropods, including the insects and most crustaceans, lying between the head and the abdomen.

**Velvet** - A soft furry covering on antlers, which contains many blood vessels that support antler growth. Velvet is shed when antlers reach full size.

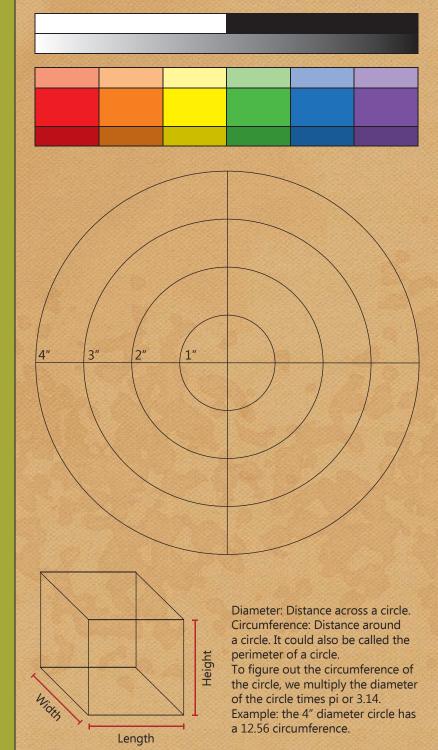
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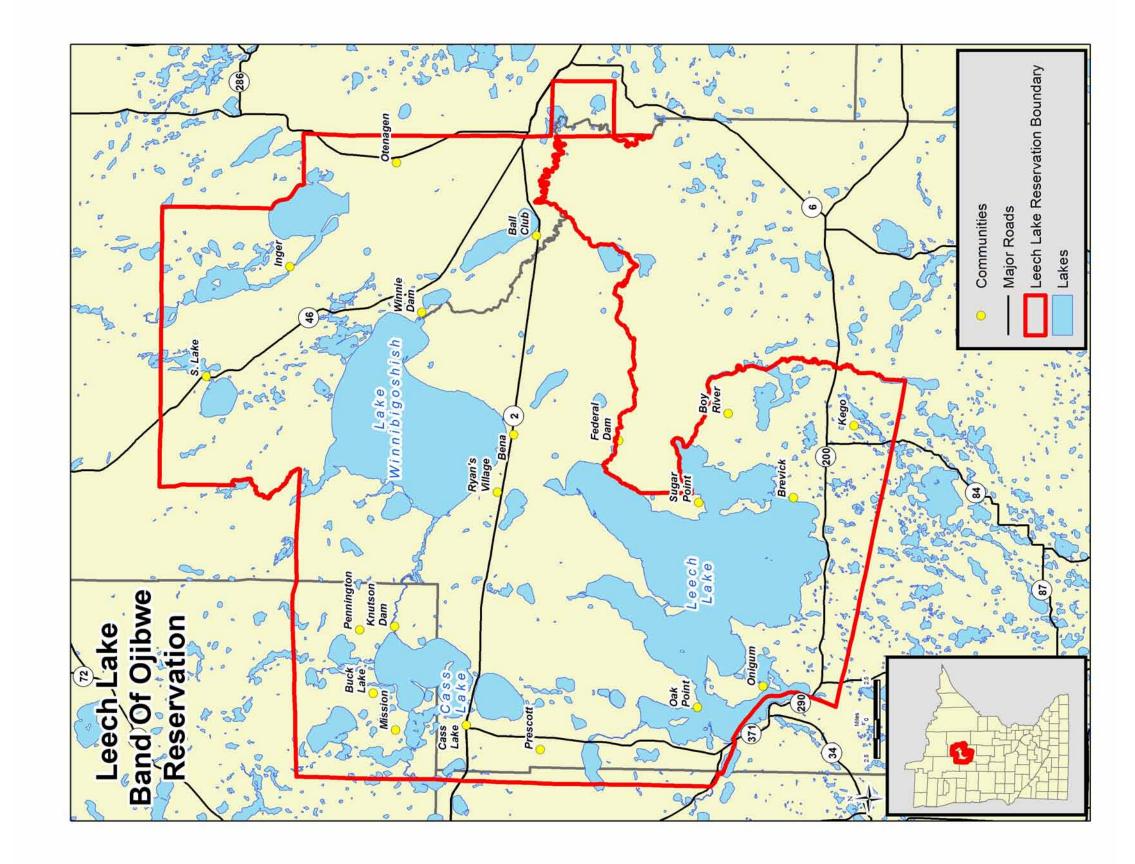
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# Measuring in the Field



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Field Guide & Journal