



Bird of the Jack Pine

A Look At the Kirtland's Warbler

We see many different birds every day, and lots of birds migrate south for the winter.

You can find these birds living in many different places so there are lots of them. Robins, chickadees, and crows are what we call “habitat generalists”. This means they can live in just about any kind of habitat, like someone’s back yard, old forests, young forests, and open areas like farm land.



Chickadee

As long as they have food, water, shelter, and space, they are not picky.



Robin



Crow

Does anyone know what this little bird is called? **It's a Kirtland's warbler**



Photos by Ron Austing and US Forest Service



Why is this bird so special? And how is it different than other birds that you might see in your backyard?



Kirtland's Warblers are what biologists call a "habitat specialist", because it is very picky about where it lives.

The Kirtland's warbler's summer breeding habitat is in northern Michigan. Breeding habitat is where a bird lays its eggs and raises its babies.



The Kirtland's warbler only builds its nests on the ground in young jack pine forests found in Michigan and sometimes Wisconsin.

Does this look like a good home to you?

It does to a Kirtland's warbler!



The jack pine forest provides food in the form of insects, water from morning dew and the bugs that they eat, shelter from the wind in the dense pine trees, and the space that large areas provide.



This is a male, or boy, Kirtland's warbler.

The male Kirtland's Warbler is bluish gray above, yellow below, and has black streaks on its sides.

It has a broken white ring that outlines the top and bottom of the eye. The male also has a black mask, like a super hero.

Like all songbirds, the male is the one that sings.



The female, or girl, has similar colors, but she is not as dark or bright as the male.

The female does not sing, but will “talk” with little chip noises.



Female Kirtland's warblers build their nests on the ground and lay 4 to 5 eggs.

She sits on that nest and keeps her eggs warm until they hatch.

The male will feed the female insects while she is busy taking care of their eggs.



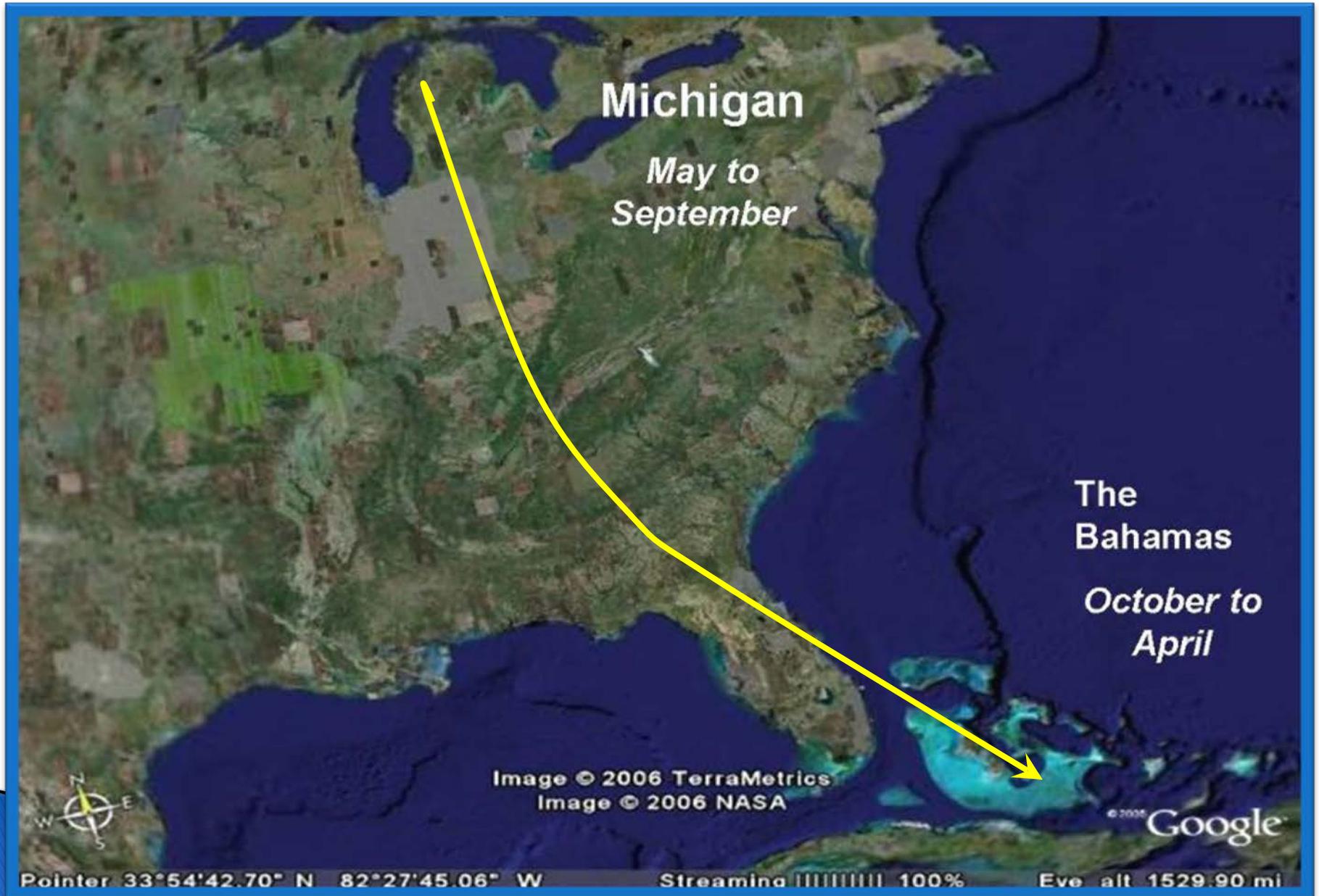
The nest is usually hidden by plants and is very hard for people or other animals to find.

The nest is not a “home” where the birds live all the time. Instead, the nest is a place for a female to lay her eggs, and for the babies to live until they are able to fly.

Once the babies are about 9 days old, they leave the nest. Their mom and dad will help feed them for a few weeks, but they grow up quickly. The next year they will be able to have their own family.



Kirtland's warblers seem to love northern Michigan as much as we do, but they don't stay for the snowy winters!



When you're getting ready for a new school year in August and September, all of the Kirtland's warblers migrate south to spend the winter months in the Bahamas.

The Bahamas are Caribbean islands that are close to Florida.



They do this every year. Do you think their wings get tired? Yes! But they take breaks along the way – people sometimes see Kirtland's warblers along the east coast, and in Ohio during migration.



All Kirtland's warblers migrate south to spend the winter months in the Bahamas. In the winter when Michigan's water is frozen and there are few insects, the warm habitat in the Bahamas has plenty of insects and fruit for Kirtland's warblers to eat.



Because the Kirtland's warbler is only able to nest in certain places, there are not many of these birds.

Scientists decided over 40 years ago that Kirtland's warblers are endangered.

Endangered means that people need to help these birds so that they don't disappear forever, or go extinct, like the dinosaurs.





An Endangered Species

Why are Kirtland's warblers endangered?

- ▶ Habitat Loss
- ▶ Brown-headed cowbird **nest parasitism.**



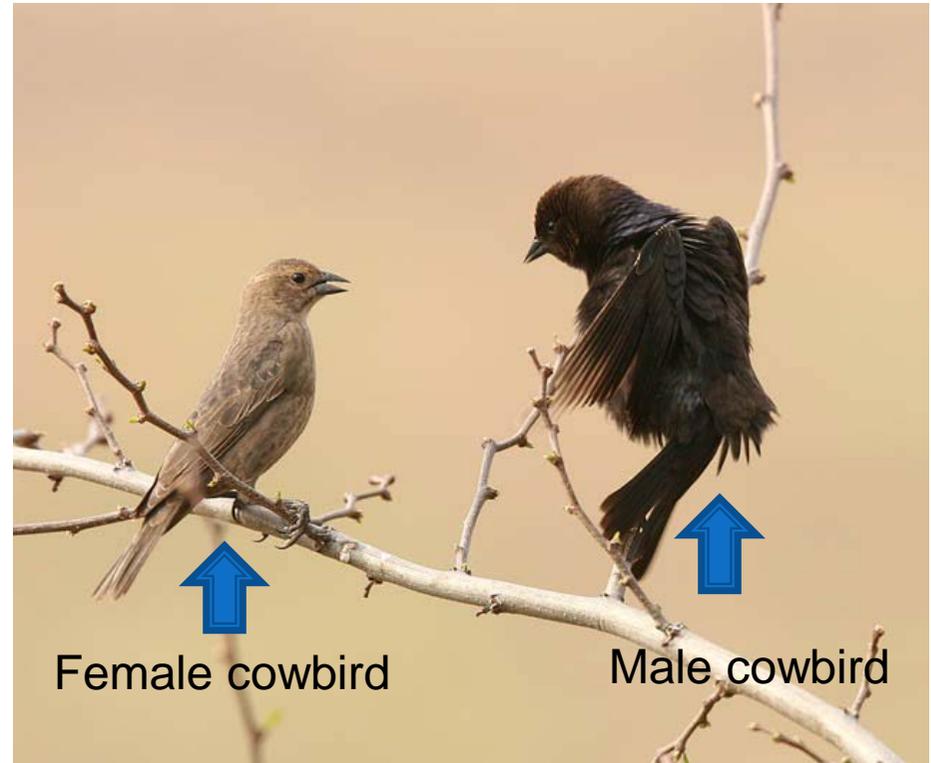
Habitat Loss in a Fire Dependent Ecosystem

- ▶ Before Europeans settled in Michigan, young jack pine habitat was created by wildfire.
- ▶ Forest fire suppression to protect homes results in less young jack pine habitat



Brown-headed cowbird

- ▶ Brown-headed cowbirds are a nest parasite, meaning they lay their eggs in other bird species' nests. The cowbird chick is bigger than the other nestlings, and competes better for food from the parents.
- ▶ The other nestlings, including Kirtland's warblers, often starve to death.



How have people made changes to help this species?

1. Management by clear-cutting and replanting large areas of jack pine has provided habitat for this species.
2. Brown-headed cowbirds are trapped in Kirtland's warbler nesting areas.

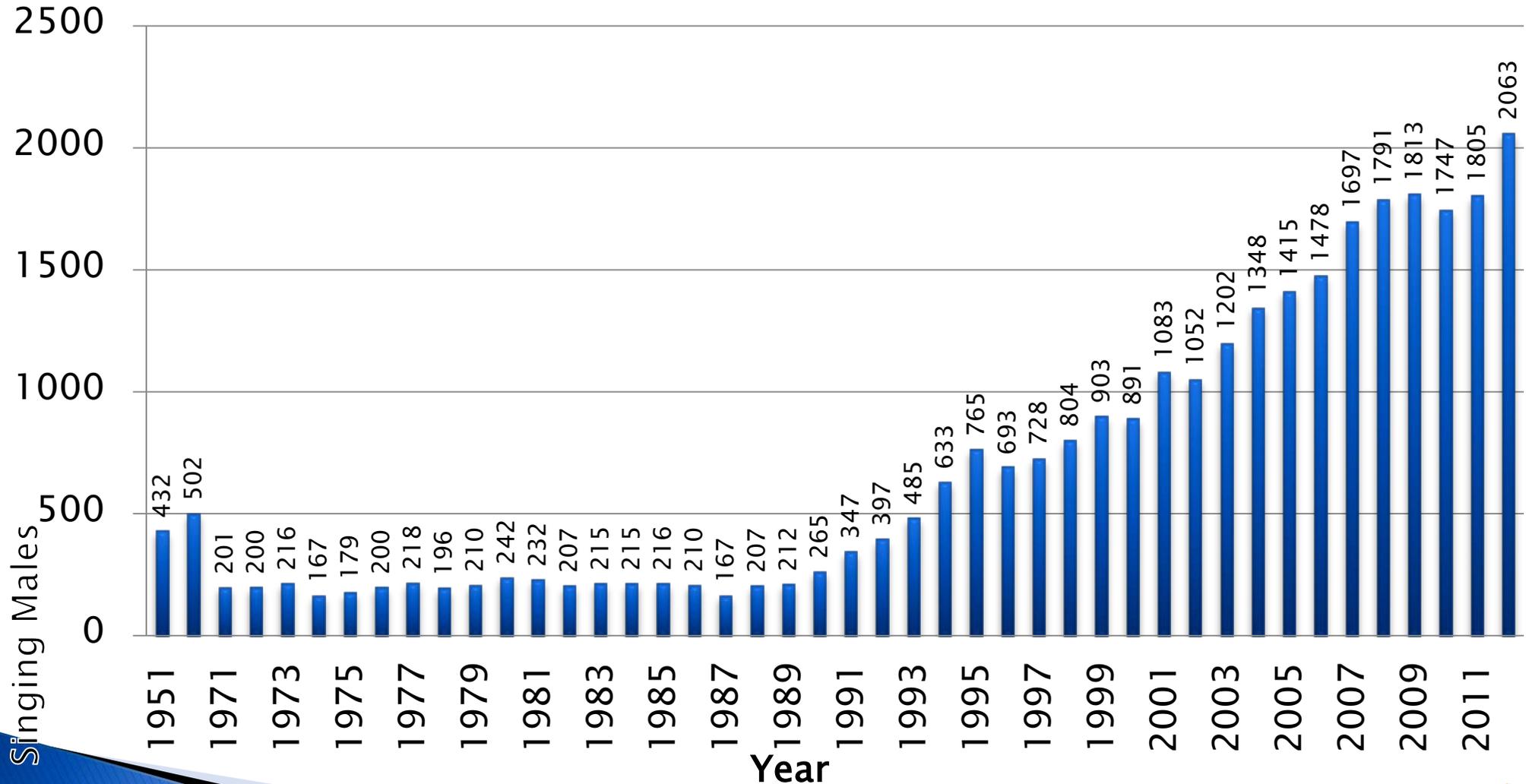
Biologists know these two changes have made a difference to Kirtland's warblers because they monitor the population through an annual census.



What is the census?

- ▶ The **census** is a **biological tool** used to get an annual population estimate.
- ▶ Biologists walk (carefully!) through each Kirtland's warbler area one time every year between June 6 and June 20.
- ▶ They count the number of Kirtland's warbler males that are singing.
- ▶ For every singing male, you can assume there is one female.
- ▶ Double the number of singing males to get the population estimate for each year.

Kirtland's Warbler Singing Males in Michigan



Will Kirtland's warblers always be endangered?

- ▶ Biologists set a **recovery goal** of having at least 1,000 pairs for at least 5 years in a row.
- ▶ More than 1,000 pairs have been counted for more than 10 years in a row!
- ▶ The US Fish and Wildlife Service may decide to **delist** Kirtland's warbler, or remove this species from the Endangered Species List.





Jack Pine

Not Just for Kirtland's Warbler

The Huron National Forest, the Michigan DNR, and the US Fish and Wildlife Service manage land and grow large jack pine forests.

These forests are planted because they belong in our area of northern Michigan.

Kirtland's warblers will always need young jack pine forests. But young jack pine forests also provide habitat for many other wildlife species...



Many other kinds of birds live here.

Notice that this bird is a warbler, is yellow and gray, but it is not a Kirtland's warbler!

If you ever see this bird, listen for its song. The male sings "pizza pizza pizza, eat eat eat eat!"

This warbler is called a:

**Nashville
warbler**



This is a Yellow-rumped warbler, otherwise known as the “butter butt.”

Again, notice that the “butter butt” is also gray and yellow, but it is not a Kirtland’s warbler.



Yellow-rumped warbler

The biggest bird you might see in the jack pine habitat is a wild turkey.



Wild Turkey



It's not only birds that live in the jack pine habitat. You can also find insects, like this beautiful Canada Tiger Swallowtail butterfly.

Do you see how its stripes make it look like a tiger?

Canada Tiger Swallowtail



Many mammals live in the jack pine forests too.

Deer like to eat the grasses and plants in this young forest, and the trees protect them from cold weather.



White-tailed deer





Red foxes live here, and eat any mice or small animals they can catch!

Red fox



The sandy soil, or dirt, in the jack pine forest makes it easier for badgers to find food. Badgers dig with their long claws and find rodents to eat beneath the ground. Sometimes you will see big holes made by animals along a sandy roadside— many times these holes were made by badgers. These holes can be a place that the badger found food under the ground, or the holes can be a burrow, or den for the badger. Either way, don't stick your hand in there!



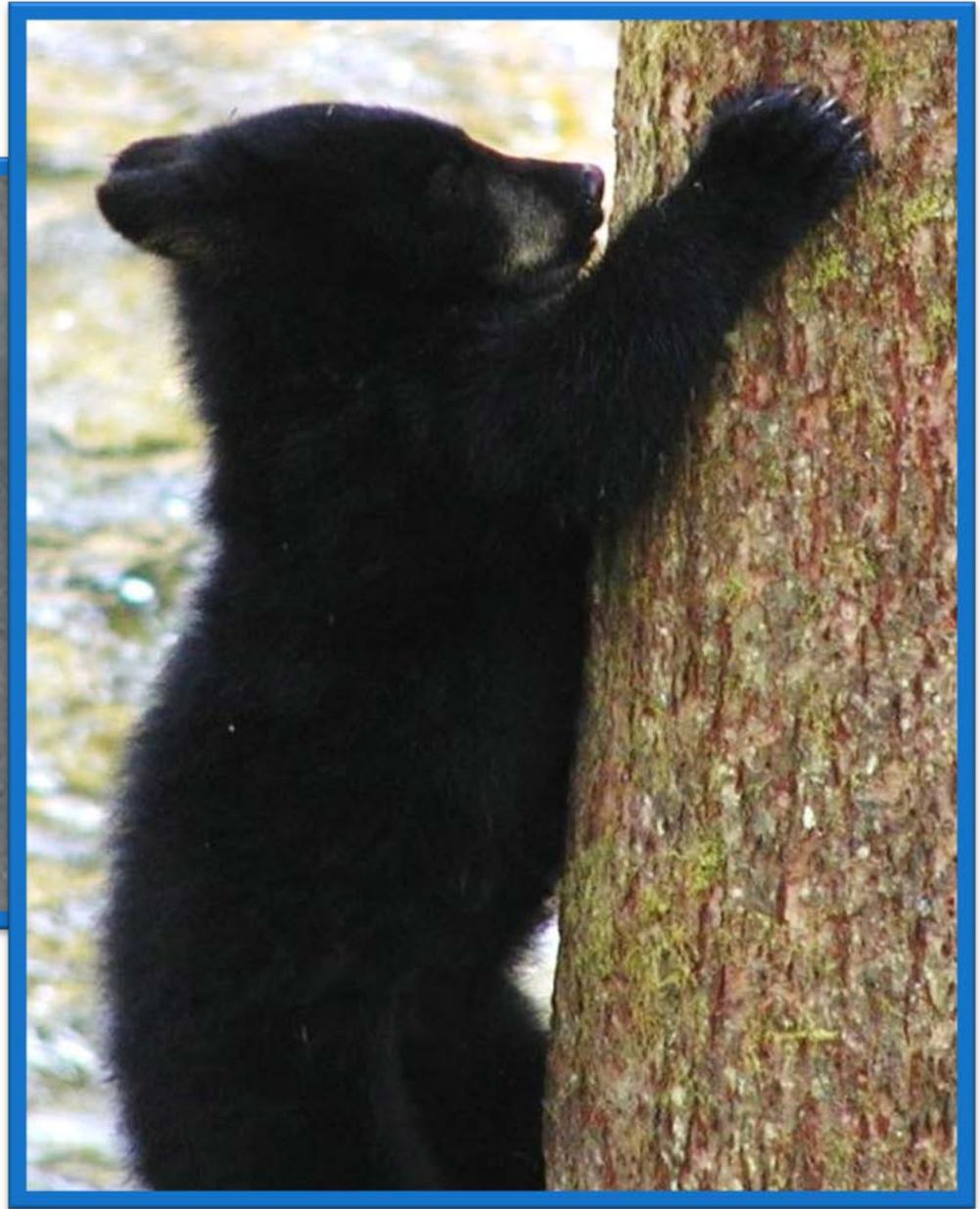
Badger



You may even see a black bear in the jack pine forest.



More often, you might see foot prints, or tracks, where a bear walked along a road before you. It's fun to look at tracks and try to figure out who made them.



Black Bear





We've talked about the many animals besides the Kirtland's warbler live in jack pine forests.

And there are many, many more that we haven't talked about –owls, hawks, woodpeckers, snakes, grasshoppers, ants, squirrels, coyotes, and many, many more!





Being Part of the Wildlife?

If you ever want to go out and try to see a Kirtland's warbler, ask an adult to take you on a Kirtland's warbler tour.

Tours are given by the US Forest Service in Mio, and the US Fish and Wildlife Service and Michigan Audubon Society in Grayling.

The US Forest Service and US Fish and Wildlife Service also offer free, personalized trips for school groups by contacting Kim Piccolo, 989-826-3252.



You are invited to draw a picture for the Kirtland's Warbler Young Artist's Calendar contest.

Please draw a picture of something you might find in northern Michigan's unique jack pine forest ecosystem, the Kirtland's warbler or any other creatures that dwell in the jack pines. Your teacher will help you follow the rules for entering the contest.

If you win the contest, your picture will be published in the Young Artist's Calendar.



A 2nd grader at the AuSable Primary School



A 1st-grader at the Roscommon Elementary School



A 4th grade student at T.R.U.T.H. Homeschool Group in West Branch.

