

The Climate Forum

Welcome to the Climate Forum! It is important that birds and humans discuss our problems to make sure we all survive.

All living things need food, clean water, and shelter. Some of us are struggling to find these basic things we all need to live.

In the audience we have Long-Distance migrants, Short-Distance migrants, Residents, and People. This is our chance to talk with each other - share what is working out well for you and your survival, and what is not working so well.

You will have time to talk with species in your same group to outline the problems you face. Then you will have the chance to speak to the whole group, share your problems, explain who you think is most to blame for the problems, and provide some ideas for solutions to the problems.

Your job here today is to get with your same-group species: 1) the Long-Distance migrants will be together, 2) the Short-Distance migrants will be together, 3) the Residents will be together, and 4) the People will be together.

First, you will read the information page that goes with your group.

Second, you will talk amongst yourselves to figure out three things: 1) what you need to survive, 2) what problems are the biggest troubles you face, and 3) who you believe is to blame for your problems.

Third, you will make a list of possible solutions to your problems.

Last, your group will present to the rest of the group at our forum. Be ready to talk about 5 things: who you are, what you need for survival, your problems, who you believe is to blame for your problems, and provide ideas for solutions to your problems.

Long Distance Migrants

You are Long-Distance migrants. You need food, water, and shelter to survive. You need to eat food that is not easy to find during Wisconsin Winters, like insects or fruit. You need habitat for shelter and to find your food. You like forests, grasslands, and open water for shelter and to find food. In general, you migrate between Wisconsin and Central or South America. Each one of you stays for the winter in a country far away from the United States. You try to stick together with your friends so you can find food and shelter.

Migration & the Winter Months

Because you are a Long-Distance migrant, that means you travel super-far to get between your summer home and your winter home. In fact, some of you travel 6,000 miles! Long-Distance migrants travel farther than any other birds. Residents do not travel very far at all. People typically live in one place using resources they need for food, water, and shelter.

You have to be well-prepared for your trip. You don't need a suitcase, you need energy! You eat lots of food before migrating, so you gain lots of weight. Some long distance migrants gain as much as 50 percent of their body weight. That would be like a 4th or 5th grader adding on 25 pounds of fat! You will use up almost all this fat while flying on your long journey. It is super-important you find places to eat on your migration journey so you can re-energize. You need places to stop and eat for a few days!

You depend on the amount of sunlight in a day to determine when you begin to migrate. As we have more sunlight in the spring, the days get longer, and you start to think about migrating North. As we lose sunlight in the fall, the days get shorter, and you begin to think about migrating South.

Migration can be Dangerous!

Your migration trip can be very dangerous. You need to fly for a very long time, and don't get to stop to rest much. You can become exhausted, and may not be able to fly away from predators fast enough.

You can run into all kinds of trouble if you have to fly over open water, because many of you do not have webbed feet. Without webbed feet you cannot paddle in the water. You will not survive if you have to land in the water. Some of you need to fly over the Gulf of Mexico! That means you might fly through terrible storms. Because you do not have webbed feet, you cannot stop and land on the water. If you have to land while you are over the ocean, you will drown and die. Because you have to fly non-stop (without stopping) over the ocean, that means you might have to fly all night or even more than one straight day without stopping! That means flying for more than 24 hours at a time! Scientists wonder how you are able to do that, because if you fly for more than one day straight that means you do not stop to eat, drink, or sleep. Scientists have learned that one strategy the Godwit uses is to sleep with half its brain while it is flying!

Some other troubles you might run into on your journey are floods, droughts (times when there is no rain), and big storms.

Other problems for Long Distance Migrants:

You have many natural predators like raccoons, opossums, squirrels, and other mammals. Even some snakes will eat birds! Other birds can be dangerous to you too: Cooper's Hawks and Sharp-shinned Hawks eat adult birds.

Habitat loss is a big problem on your winter grounds. If you migrate South and the people have cut down your forest, there is no place for you to live. You have no shelter or food, so you die. That means trouble for your species.

Another big problem you have is if your stopover habitat is contaminated with toxins (poison), like chemicals or oil. Chemicals and oil can kill your food and can make your feathers too dirty to fly. You would die.

Some challenges that people create are hunting seasons in which people hunt for food, or when they remove habitat to use the land for farming, building homes or stores, making roads, and lots of other reasons. Other challenges are outdoor cats, telephone lines and windows that you can't see, and wind turbines (that create energy for people).

The Breeding Season

Each year you return to Wisconsin to find a territory and raise a family. You need a safe place to nest and lots of high-quality insects to feed your chicks.

In the future, climate change will cause spring to happen earlier each year. Each year it will get warmer earlier. However, the timing of sunlight increasing or decreasing won't change. Because you depend on amount of sunlight to tell you when to migrate, you will not be able to migrate back to Wisconsin earlier - but, because it's getting warmer earlier, you may miss out on a BIG rush of insects (your food!). It will be harder for you to feed your chicks, and some of them may die.

Habitat loss is also a problem during the breeding season. You may return to Wisconsin ready to raise a family, but find a huge parking lot and a brand new grocery store sitting on your habitat! If your habitat has become a parking lot, a new store, or a place with lots of houses for people to live in, then that means you have no shelter or food.

Generalists vs. Specialists

Some of you are specialists, which means you need something special in your habitat to survive. For example, the Red Knot needs to time its spring migration exactly with the horseshoe crab egg-laying, because the Red Knot eats those eggs. Another example is the Godwit. The Godwit migrates back to Alaska though China, and if its habitat in China is flooded by people making a dam, then the Godwit will not be able to gain enough weight (fat) to make the trip over the ocean. That means the Godwit will fall into the water and die.

Others of you are generalists, which means you do not need anything special - it's pretty easy for you to eat a variety of food to survive.

Your long-distance migrants family includes: Upland Sandpiper, Bobolink, Scarlet Tanager, American Redstart, Purple Martin, Chimney Swift, Red Knot, Godwit, and Wood Thrush.

Short Distance Migrants

You are short-distance migrants. You need food, water, and shelter to survive. You need food that is not easy to find during Wisconsin winters, like insects or fruit. You need habitat for shelter and to find food. You like forests, grasslands, and open water for shelter and to find food. In general, you migrate between Wisconsin and the southern United States. Each one of you spends the winter in a state pretty far away from Wisconsin, like South Carolina, Florida, or Louisiana. You try to stick together with your friends so you can find food and shelter.

Migration & the Winter Months

Because you are a Short-Distance migrant, that means you travel sort-of-far to get to your summer home and your winter home. Some of you travel 1,000 miles! Long-Distance migrants travel farther than you. Residents do not travel very far at all. People typically live in one place using resources they need for food, water, and shelter.

As a Short-Distance migrant, you have to be well prepared for your migration trip. You don't need a suitcase, you need energy! You eat lots of food before migrating, so you gain lots of weight- almost 15% of your body weight in fat. That would be like a 4th or 5th grader gaining 10 pounds of fat! Long-Distance migrants need more fat than you do, because they travel farther. That means you don't need to eat as much as a Long-Distance migrant would. You will use up almost all this fat while flying your migration journey. It is very important to find places to eat on your migration journey so you can re-energize.

You depend on temperature to determine when you begin to migrate. You start to think about migrating North when the weather starts to warm up in the south. You begin to think about migrating South when it begins to get chilly in the fall.

Migration can be Dangerous!

Your migration trip can be very dangerous. You can run into all kinds of trouble if you have to fly over open water, because many of you do not have webbed feet. You will not survive if you have to land in the water.

Since you do not need to fly as far, you can take more breaks along the way than Long-Distance Migrants do. You can stop along the way to eat food, or rest up. You rely on migratory stopovers, places you can stop and eat, to provide good, safe habitat while you migrate.

Some other troubles you might run into on your journey are floods, droughts (times when there is no rain), and big storms.

Other problems for Short Distance Migrants:

You have many natural predators like raccoons, opossums, squirrels, and other mammals. Even some snakes will eat birds! Other birds can be dangerous to you too: Cooper's Hawks and Sharp-shinned Hawks eat adult birds.

Some challenges that people create are hunting seasons in which people hunt for food, or when they remove habitat to use the land for other purposes. Other challenges are outdoor cats, telephone lines and windows that you can't see, and wind turbines (that create energy for people).

Habitat loss is a big problem for you. You may find that when you migrate South, you don't have any habitat left. The people have cut down your forest while you were raising your family in the north! If the forest is cut down, there is no place for you to live - you have no shelter or food. That means trouble for your species.

Poisons in the environment are also a problem. If there is an oil spill that poisons the water you need for drinking, or the water that is habitat for the insects or fish you eat, you are in big trouble. If there is a huge farmer's field that has been sprayed with pesticides, and that kills the insects you want to eat, you are in big trouble because you will not be able to find food.

The Breeding Season

Each year you return to Wisconsin to find a territory (home space) and raise a family. You need a safe place to nest and lots of high-quality insects to feed your chicks.

In the future, climate change will cause spring (and warmer temperatures) to happen earlier each year. You will be able to migrate back to Wisconsin earlier each year, and will still be able to raise your family during the BIG rush of insects. It will be easy for you to feed your chicks.

Habitat loss is also a problem during the breeding season. You may return to Wisconsin ready to raise a family, but find a huge parking lot and a brand new grocery store sitting on your habitat! If your habitat has become a parking lot, a new store, or a place with lots of houses for people to live in, then that means you have no shelter or food.

Generalists vs. Specialists

Some of you are specialists, which means you need something special in your habitat to survive. For example, the Red Knot needs to time its spring migration exactly with the horseshoe crab egg-laying, because the Red Knot eats those eggs. Another example is the Godwit. The Godwit migrates back to Alaska though China, and if its habitat in China is flooded by people making a dam, then the Godwit will not be able to gain enough weight (fat) to make the trip over the ocean. That means the Godwit will fall into the water and die.

Others of you are generalists, which means you do not need anything special - it's pretty easy for you to eat a variety of food to survive.

Your Short Distance Migrants family includes: Great Blue Heron, Gray Catbird, Red-winged Blackbird, Eastern Bluebird, House Wren, and Eastern Meadowlark.

Residents

You are Resident bird species. That means you can pretty much live year-round wherever your home is, so you do not need to travel very far (if at all). In general, you do not migrate. Each one of you stays for the winter in the same place you raise families in the summer. In the summer, you mostly set up territories (home spaces) to have resources so your family can survive. In the winter, you try to stick together with your friends so you can find food and shelter.

You need food, water, and shelter to survive. You need (depend on) food that is mostly insects, seeds and fruit in the summer. Many of you are able to switch to a different type of food in the winter. You may eat fruits or insects in the summer, and switch to grains or seeds in the winter. You need (depend on) habitat that includes grasslands, forests, lakes and rivers, and even farmland.

Migration & the Winter Months

Because you are a Resident, it means you hardly travel at all. Long-Distance and Short-Distance migrants travel farther than you. People typically live in one place using resources they need for food, water, and shelter.

As a Resident, you do not have to worry about being well-prepared for a migration trip. While Long- and Short-Distance migrants are eating lots of food for migration, you are getting ready for winter. You are concerned about finding food and shelter in your year-round home. Winter is cold in Wisconsin, food becomes hard to find (scarce), and it is hard to live in those conditions.

You do not have to depend on sunlight, or day length, or temperature, or food availability to determine when you begin to migrate, because you do not migrate. You just need lots of food to be available to survive the winter. Sometimes you find a nice school with a classroom that feeds birds. You like hanging out there and watching the kids look at you with binoculars.

Climate change is making the entire earth warmer. Many of the changes are happening in the spring and summer. However, it also means changes during the winter. There will be bigger storms, and more freezing rain each winter. It will be harder to find the food you need to survive.

Some other troubles you might have are: floods, droughts (times when there is no rain), intense cold or winter storms.

The Breeding Season

Each year you stay in Wisconsin to find a territory and raise a family. You need a safe place to nest and lots of high-quality insects to feed your chicks.

In the future, climate change will cause spring to happen earlier each year. You will already be in Wisconsin, and will still be able to raise your family during the BIG rush of insects. It will be easy for you to feed your chicks.

Habitat loss is another problem you face. People may decide that a huge concrete parking lot and a brand new grocery store are more important to have than your habitat! If your habitat has become a parking lot, a new store, or a place with lots of houses for people to live in, then that means you have no shelter or food.

Other problems for Residents:

You have many natural predators like raccoons, opossums, squirrels, and other mammals. Even some snakes will eat birds! Other birds can be dangerous to you too: Cooper's Hawks and Sharp-shinned Hawks eat adult birds.

Habitat loss is a big problem for you. People may cut down your forest or use prairie to plant crops. If the forest is cut down and the prairie is planted, there is no place for you to live. You have no shelter or food, so you may die. If you can't find nesting habitat, you can not have families to maintain your population. That means trouble for your species.

Poisons in the environment are also trouble for you. If there is an oil spill that poisons the water you need for drinking, or the water that is habitat for the insects or fish you eat, you are in big trouble.

Your Resident family includes: Black-capped Chickadee, Northern Cardinal, Blue Jay, American Crow, and American Goldfinch.

People

You are People - you have a lot of power over what your habitat looks like! You can pretty much live year-round wherever you want. You can travel or stay in one place. You need food, water, and shelter to survive. You need food like meat, grains, and fruit, and clean water to drink. You grow fruits and vegetables in the ground to feed yourselves. You raise animals like cows and chickens so that you can eat their meat. You depend on the earth for resources like trees, minerals, soil, and clean air to create your own habitat.

You build homes out of wood, metals, concrete, and steel. All those materials are resources that need to be mined from the ground, created in factories, put together, and sold in stores. You raise your families in homes. Some families travel a lot, some families stay in one place.

Animals of all kinds depend on people to preserve some environment in which they can survive. People also depend on animals to live: many animals help pollinate your crops, or keep other animals from becoming too numerous.

Basically, as People, you are concerned about finding food and shelter in your year-round home space.

Potential Problems for People

As a person, you do not have to depend on sunlight, or day length, or temperature, or food availability to determine where you live. You do, however, need to rely somewhat on temperature, weather, climate, soil, and water to grow or raise things you eat (like grains, vegetables, cows, chickens, and pigs). Having a healthy environment and a healthy climate is important to your survival.

People face a lot of dangers in their environment. Big storms, drought (lack of water), and floods can damage homes, food crops, or be dangerous to people.

Another big problem you have is poisons in the environment. If there is an oil spill that poisons the water you need for drinking, or the water that is

habitat for the fish you eat, you are in big trouble. If poisons kill the pollinator insects, like bees, your plants will not grow fruit for you to eat.

Climate change is causing the earth to get warmer. This will mean that people will have lots of new challenges to overcome. There will be bigger storms, and more freezing rain each winter. The warmer climate may make summer too hot for some crops to grow. The animals that people depend on will find it harder to survive in the changing environment.

People share the planet with Animals

As People, you share this planet with animals, but sometimes you are picky about which animals you want to share with. For example, you love bunnies and raccoons because they are so cute! Snakes and spiders, however, make lots of people nervous. Some people do not want wolves around. Other people think some birds will eat all of their crops.

Your family includes: people living in your home, your neighborhood, your city, your state, your nation, your world.

Group names: Reader_____

Writer_____

Time keeper_____

Motivator_____

Read your information page. Answer the questions below
(front and back).

1. Who are you?

(LD migrants, SD migrants, Residents, People)

Give examples of your species

2. What do you need to survive? (*Think: food, water, shelter*)

(What do you eat? Where do you live - can you find it on a map? What type of habitat do you use? Are you specialists or generalists?)

3. Do you migrate? (Yes No)

~~If you migrate, when do you decide to start traveling?

4. What are the biggest problems to your survival?

5. Who do you believe is to blame for your problems? Why?

6. What solutions do you believe could be made to help you and your friends? (*Think: What things need to change so you can survive?*)

7. Who needs to make those changes? How will that group be affected?