

Reading: About Migration

Many animals move over great distances from one place to another in search of resources, such as food, space to raise their babies, mates, or better weather.

Although some animals are able to find food despite the harsh snowy conditions, many animals can't find enough food during Tahoe winters, forcing them to travel elsewhere. In spring, the snow melts, plants grow, and more food becomes available, inviting animals from all over North and South America to spend their time here in Tahoe, and sometimes breed in the warmer months.





In springtime, Tahoe sees animals arriving, leaving, and passing through. Bald Eagles and several duck species may travel north to Alaska and Canada from Tahoe at this time. Other animals, like American Robins, Tree Swallows, and Mule Deer migrate back into the area in the spring.

A third group, including Snow Geese, Sandhill Cranes, and Painted Lady butterflies, may be seen migrating through the Tahoe area at this time. Other animals may only use Tahoe as a rest stop on their journey to somewhere else. For example, Arctic Terns are birds that travel from the North Pole to the South Pole each year and have been spotted in Tahoe along the way.

Scientists can predict when animals will migrate because these travel patterns typically occur around the same time, such as with changing seasons. While most animals migrate seasonally, some, including fish or zooplankton that live in Lake Tahoe or in the ocean, migrate up and down through the water column daily.



Reading: Navigating Through Migration

Migrating animals navigate in a few different ways. Some sense magnetic fields that surround the earth, much like a compass.

A second way animals navigate during migration is using features in the sky. Birds can figure out where they are in the world based on where the sun is in the sky. Many animals use the night sky to navigate. Some animals look for a bright star like the North Star, while others look for star patterns or track the moon. Other animals may simply follow landscape features, such as mountain ranges or rivers, often along pathways learned from older animals.





The following birds are some migrating species to look out for in Tahoe right now:

<u>Canada Goose</u> - Search areas near water or look overhead for these birds flying in formation.

<u>American Robin</u> - Look for this common bird to increase in numbers in the trees or on the ground near your home.

<u>Sandhill Crane</u> - Watch and listen for large groups of these tall birds flying overhead in the evenings.



Activities for K-2 Grade Students:

Know Where to Go

Knowing where to go is the first step in migration. Learn more about where you are in your home using a compass.



- 1. Find a compass. If someone in your house has a smart phone they likely already have a compass on their phone, or can download a free compass app.
- 2. Face your front door from the inside of your house. Point your compass toward your door to figure out which direction it faces.
- 3. Write down the direction your door faces.



Bird Migration Discussion Questions

Have you ever noticed how some flocks of birds fly in a V shape? Why do you think they do this? Think of two possible reasons this might help the birds. Discuss why you think this with a family member or friend.

Birds are most often seen migrating in the evening. Why do you think this is? Think of a possible way this could help the birds and tell it to a family member or friend.

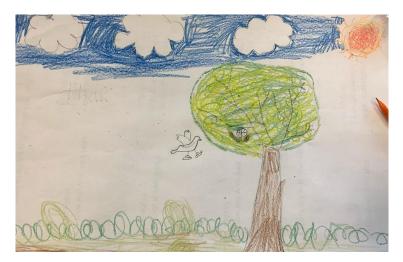
Migration Art

Pick an animal that migrates to or from Tahoe in the spring. This could be an animal you saw this week or an animal you read about, like a Mule Deer, Snow Goose, or Bald Eagle.

Use what art supplies you have to paint, sculpt, draw, or build this animal.

TINS wants to see your art! Have your parent post a photo of your art project to Facebook and tag Tahoe

Institute for Natural Science. You could also email the photo to us at kendal@tinsweb.org.



Animal Survey

Even if we don't see animals actively migrating, we know migration is happening when we see increased animal activity in the springtime. This week, take a survey for five days in a row of your wild animal sightings.

In order to be a good scientist, you should make some predictions first:

- 1. How many animals do you think you will see in one day?
- 2. What kinds of animals do you think you might see?
- 3. Do you think most of the animals you will see will be mammals, birds, insects, amphibians, or reptiles?

Good scientists also set some controls for their experiments. This means you should count all of the animals you see at the same time each day, and in the same place. This place could be in your backyard, out a window, or walking around your neighborhood.

Each day, count the number of animals you see. After five days, compare your experiment results with your predictions by asking answering the following questions:

- 1. What was the greatest number of animals you saw in one day?
- 2. What was the smallest number of animals you saw in one day?
- 3. What kinds of animals did you see?
- 4. How many animals did you see total over five days?

Call a grandparent, cousin, or tell a sibling about your experiment, your predictions, and your results.





Do People Migrate?

Humans migrate too! Human migration is different from animal migration because it is not always on a predictable schedule. Like all animals, humans who migrate are looking for a resource, like better weather, health, education, or a new job.

Some people live in different places during different times of year, making them seasonal migrators. One example of this are the people who come to Tahoe to work at ski resorts during the winter and go other places to work and live the rest of the year.

Think of a human you know who has migrated. Call them to ask them these five questions:

- 1. Where did you migrate from?
- 2. Where did you migrate to?
- 3. Why did you migrate?
- 4. What resource did you gain by migrating?

Further Learning: Use these websites to learn more about migration around the world.

See real time data on the movement of birds today.

Learn what birds are expected to be where with this bird migration forecast.

Play this online Bird Migration game.

Find bird migration games and discuss the advantages of migrating in groups here.

Watch this Wild Kratts episode about Monarch Butterflies and their migration patterns.

Learn this whale migration song.

Follow migration paths, make a bird feeder for migrating birds, and think more about human navigation.

