

Migratory Bird Long Jump



Objective To demonstrate one of the many examples of harm invasive plants cause – specifically the negative impact invasive buckthorn berries have on migrating birds.

Audience 5 or more participants; ages 8+

Duration 20-25 minutes

Materials

- Set of locally evolved plant and invasive plant cards (*last pages*)
 - If you have lots of participants, make sure to have extra cards of each
- Items to demarcate start/finish lines (e.g. cones, rope, etc.)
- *Optional* –
 - Play feathers (*can use craft feathers or printed feathers; costume prop for “jumping birds”*)
 - Bird cards (*pages below, print double-sided to include ‘Migration Facts’*)

Background Many insectivorous birds migrate south for the winter. These migrations are often hundreds or thousands of miles long, the longest being that of the arctic tern that migrates from the Arctic to the Antarctic each year. For birds to be able to make these long journeys, they must bulk up on nutrient rich berries in the fall such as dogwood, elderberry, and maple leaf viburnum.

Unfortunately, mature invasive buckthorn trees also produce hundreds of berries that ripen in the fall. Invasive buckthorn berries, roots, and leaves are rich in anthraquinone which is turned into a laxative, in the gut of many birds. When birds eat the anthraquinone-laden berries, it has a laxative effect. So they have not only wasted valuable time foraging for this nutrient-poor food, but the laxative chemicals force expulsion of any food in their systems, preventing them from absorbing those nutrients, and causing stress from the evacuation of their bowels.

The activity can be introduced with some migration facts, from the bird cards, to get participants excited about migratory birds; facts are from the Audubon Society and Cornell University.

- www.allaboutbirds.org
- <https://www.greenmountainaudubon.org/the-hermit-thrush/bird-habitat-and-invasive-plant-plants-a-morning-at-geprags-park>

Procedure

Round One:

1. Set up the long jump.
 - Mark or draw the finish line on the ground. This is the migratory birds’ destination.
 - Mark the start line, where the birds (participants) begin their migration (jump). The distance the participants have to jump should be challenging, but achievable with a running start.
2. *Optional:* Have each participant choose which migratory bird they’re going to be or assign them one (*printable cards below*). Talk with participants about migration using the Audubon’s migration facts on the cards. *Ask: Why do birds migrate? Do all birds migrate? Where are they going?* Providing them with species cards and/or feathers helps establish the fun, supportive spirit of this game.
3. Explain that they are all migrating birds, starting their journey in a healthy forest filled with locally evolved plants. Explain that birds need to bulk up for their migration and often eat lots of nutrient dense berries to do this.

- *Ask: What might birds eat to bulk up for migration? What are some locally evolved plants?*
4. Hand out 3 locally evolved plant cards to each participant as they approach the line. Point out that all three cards are locally evolved plant cards, which means the birds are getting their energy from eating locally evolved berries.
 5. Have the participants one at a time “migrate” (jump from the start to the finish line) to their destination. Participants can have as much of a running start as they’d like. If they can’t make the jump, they didn’t make it to their destination and are out for the round.
 6. Once all participants have jumped, have remaining participants come back to the starting line. Tell the participants that there was a disturbance in the forest (a logging road was built, a big tree blew down, a house was built, a water line was put in, etc.). This disturbance to the ecosystem allowed invasive buckthorn to get a foot hold in the forest. Explain to participants what happens to birds when they eat invasive buckthorn berries and how this will impact the birds’ migration.
 - *Ask: What impact do you think this will have on migrating birds?*

Round Two:

7. Mix the locally evolved plant cards with the invasive plant cards. Hand out 3 plant cards to each participant as they approach the line. The number of locally evolved plants compared to invasive plants the participant draws dictates how much of a running start they get (measured by steps away from starting line):

Locally evolved	Invasive plant	Steps
3	0	As many as they want
2	1	5
1	2	3
0	3	1

8. Repeat as before, and participants who don’t make the jump are out for the round.

Round Three:

9. Have the remaining “birds” come back to the starting line. Remove ¼ of the locally evolved plant cards from your stack (this is where it’s also good to have extra cards!). Tell the participants that the invasive plants have continued to displace locally evolved plants. There are now more invasive plants than locally evolved plants. Again, give participants 3 cards as they approach the line and have them jump from the appropriate line – more participants will have to jump with a limited running start in this round.

Wrap Up

10. Participants can play multiple rounds of each scenario as time permits, and by the end of the game, most of the participants should be out.
11. Debrief the game with the participants.
 - *Ask: What happened to the migratory birds as the game progressed? What are some other challenges besides invasive plants that migrating birds face? What can we do to help migratory birds? What would have changed if people had removed the invasive buckthorn before they produced berries?*

Grey Catbird



Wilfred Hdez,

Hermit Thrush



Matt MacGillivray, Wikimedia

Scarlet Tanager



CheepShot, Wikimedia Commons

veery



Aaron Maizlish, Flicker

Where does the Hermit Thrush migrate to?

These beautiful birds are short distance migrants. They spend their winters in the southern United States, including Florida.

Fun Facts

In the eastern United States Hermit Thrushes typically build their nests on the ground, while in the western US they usually build their nests in trees.

The Hermit Thrush is the state bird of Vermont

Where does the Gray Catbird migrate to?

To the Gulf Coast from Florida through Texas and all the way down Central America and the Caribbean!

Fun Facts

Gray Catbirds are mimics, they copy the sounds of other species and string them together to make their own songs! Their songs can last up to 10 minutes.

They get their name from the catlike mew sound they make!

Where does the Veery migrate to?

All the way to South America!
Brazil

Fun Facts

Veerys migrate at night. They can fly up to 160 miles in one night!

Listen for the beautiful song of the Veery at dusk and dawn. They have a double voice box, called a syrinx, which allows them to sing two songs at once.

Where does the Scarlet Tanager migrate to?

All the way to South America!

Fun Facts

The song of the scarlet tanager is said to sound like an American robin with a sore throat.

Scarlet tanager chicks do not open their eyes until they are five days old!

Black-throated Blue Warbler



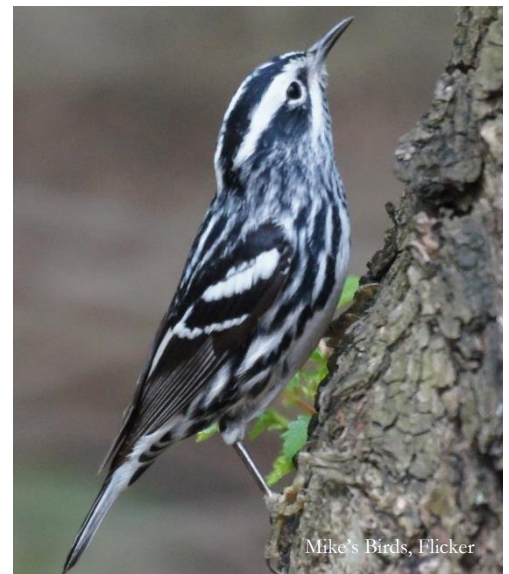
Rose-breasted Grosbeak



American Redstart



Black-and-white Warbler



Where does the Rose-breasted Grosbeak migrate to?

All the way to Central and Northern South America!

Fun Facts

Unlike most other species of birds, the male Rose-breasted Grosbeak takes a turn incubating the eggs for several hours during the day, while the female incubates the rest of the day and all night long.

Rose-breasted Grosbeaks build such flimsy nests that sometimes you can see right through the nest to the eggs!

Where does the Black-throated Blue Warbler migrate to?

All the way to the Bahamas, Cuba, Haiti, the Dominican Republic, Jamaica, and Puerto Rico

Fun Facts

The male and female Black-throated Blue Warblers look so different that scientists originally thought they were two different species!

Over the winter, Black-throated Blue Warblers take advantage of a sweet treat created by insects. These insects feed on tree sap and excrete drops of sweet sap or "honeydew" from their back ends that the birds drink up.

Where does the Black-and-white Warbler migrate to?

Some individuals spend their winters in Florida, Southern California, or Mexico while others continue to Central and Northern South America!

Fun Facts

These birds can be found foraging on tree limbs. They have an extra-long hind claw and heavier legs, which helps them to hold onto the bark.

The Black-and-white Warbler is one of the first warblers to arrive in Vermont in the spring.

Where does the American Redstart migrate to?

All the way to Central and Northern South America!

Fun Facts

One way these beautiful birds catch their prey (insects) is to startle them by flashing their bright wing and tail patches.

The male American Redstart often has two mates at the same time!

Baltimore Oriole



Yellow Warbler



Marsh Wren



Chipping Sparrow



Where does the Yellow Warbler migrate to?

All the way to Central and Northern South America!

Fun Facts

Yellow Warblers have been found caught in the web of the orb weaver spider!

This bright bird's song is a series of whistles that sounds like it's saying: "sweet sweet sweet, I'm so sweet".

Where does the Baltimore Oriole migrate to?

Florida, Caribbean, or Central America!

Fun Facts

Baltimore Orioles eat fruit and nectar. Putting orange slices near your bird feeder can be a great way to attract these beautiful birds to your yard!

They can often be seen eating fruit in an unusual way. They stick their closed beak into soft, ripe fruit, then open their beak to slurp up the sweet fruit juice.

Where does the Chipping Sparrow migrate to?

These birds migrate to Southern California, Mexico, or Florida!

Fun Facts

Each male has their own version of the basic Chipping Sparrow song so it is possible to identify individual birds by their song if you listen closely!

Chipping Sparrows line their nests with hair. They prefer horsehair, but will also use human hair, dog hair, cat hair, or fine grasses.

Where does the Marsh Wren migrate to?

These birds spend their winters in the Southern United States and Mexico!

Fun Facts

The Marsh Wren is a fierce little bird. They will pierce the eggs of other Marsh Wrens nesting in the area if given the opportunity.

For a little bird, the Marsh Wren has a big song! Sometimes they can even be heard singing during the night.

Eastern Meadowlark



Brown Thrasher



Yellow-billed Cuckoo



Where does the Brown Thrasher migrate to?

These birds migrate to the southeastern United States.

Fun Facts

These striking birds have yellow eyes!

They will defend their nests aggressively from nest predators. They can strike intruders with their beak hard enough to draw blood.

Where does the Eastern Meadowlark migrate to?

These birds migrate to the southeastern United States, Mexico, and Central America

Fun Facts

Despite its name, the Eastern Meadowlark is not actually in the Lark Family. It is in the blackbird family.

The oldest known Eastern Meadowlark was at least 8 years and 10 months old!

Where does the Yellow-billed Cuckoo migrate to?

All the way to South America!

Fun Facts

Yellow-billed Cuckoos are one of the only bird species that can eat hairy caterpillars!

Sometimes the Yellow-billed Cuckoo will lay its eggs in other birds' nests, a practice known as nest parasitism.



Red Osier
Dogwood



Red Osier
Dogwood



Red Osier
Dogwood



Red Osier
Dogwood



Red Osier
Dogwood



Red Osier
Dogwood



Elderberry



Elderberry



Elderberry



Elderberry



Elderberry



Elderberry



Staghorn
Sumac



Staghorn
Sumac



Staghorn
Sumac



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