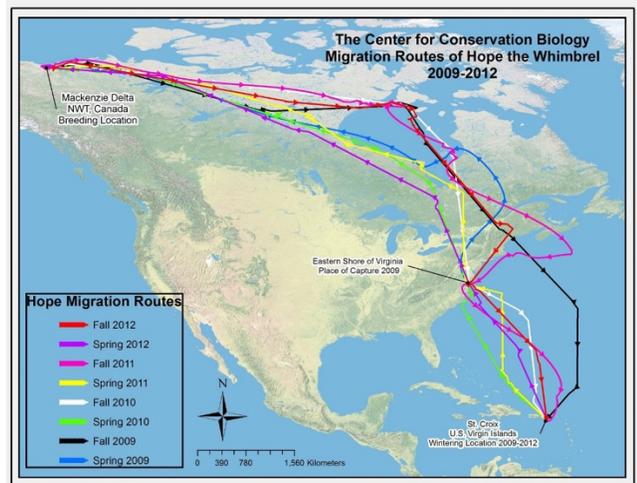
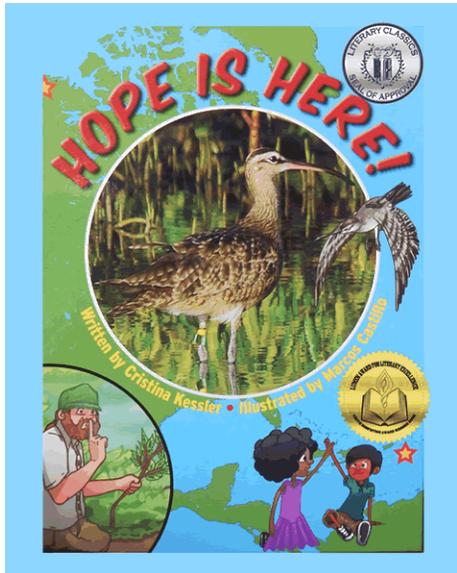
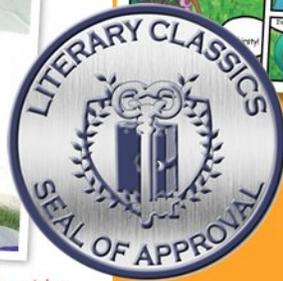




Cristina Kessler
Learning with the Books
Hope is Here!



Author Cristina Kessler with a happy new owner of *Hope Is Here!*



Parent-Teacher Guide

HOPE IS HERE!

<https://www.cristinakessler.com/product/hope-is-here/>

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Fun Facts About Whimbrels and Hope

Scientific Name: *Numenius phaeopus* (This means “The New Moon” in Greek because of the shape of her beak.)

Common Names: Whimbrel

Size: Females are larger than males. Hope is 17 inches long from the tip of her large curved bill to her tail. She has a 32-inch wingspan and weighs 16 to 24 ounces.

Adult Description:

1. Large shorebird.
2. Long, down-curved beak good for digging for crabs in the mud.
3. Long neck.
4. Long legs.
5. Streaked and buffy (brownish) all over.
6. Crown (top of head) dark with a distinct light stripe in the middle.

Distribution: One of the most wide-ranging shorebirds in the world. Whimbrels breed in the Arctic in both eastern and western hemispheres and migrate to South America, Africa, south Asia, Australia and the Caribbean.

Diet: Whimbrels love fiddler crabs and other crustaceans, aquatic invertebrates, insects, worms and mollusks. Hope feasts on berries, seeds and leaves on her migration south. Whimbrels forage in mud and sandy places, and do not feed inland.

Habitat: Coastal zones and wetlands like Great Pond Bay on St. Croix. They are very territorial, protecting their feeding grounds vigilantly from other Whimbrels. Hope has been spotted within 10 feet of the same spot, protecting her fiddler crab supply, year after year.



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Breeding: Whimbrels breed in the Arctic and sub-Arctic from Iceland to Canada, to Alaska and Eurasia. They prefer to nest in low-Arctic moorland close to the tree line. They nest either in shallow depressions on the ground hidden by low grass or on a mound of moss or grass with water at the base.

A nest usually has two to five eggs and both male and female incubate the eggs for 22 to 28 days. Both parents also care for the chicks until they fledge in 35 to 40 days.

Call: A fluty rapidly repeated “tu” sound. In flight they make a loud trill and when danger is near a harsh squawk.

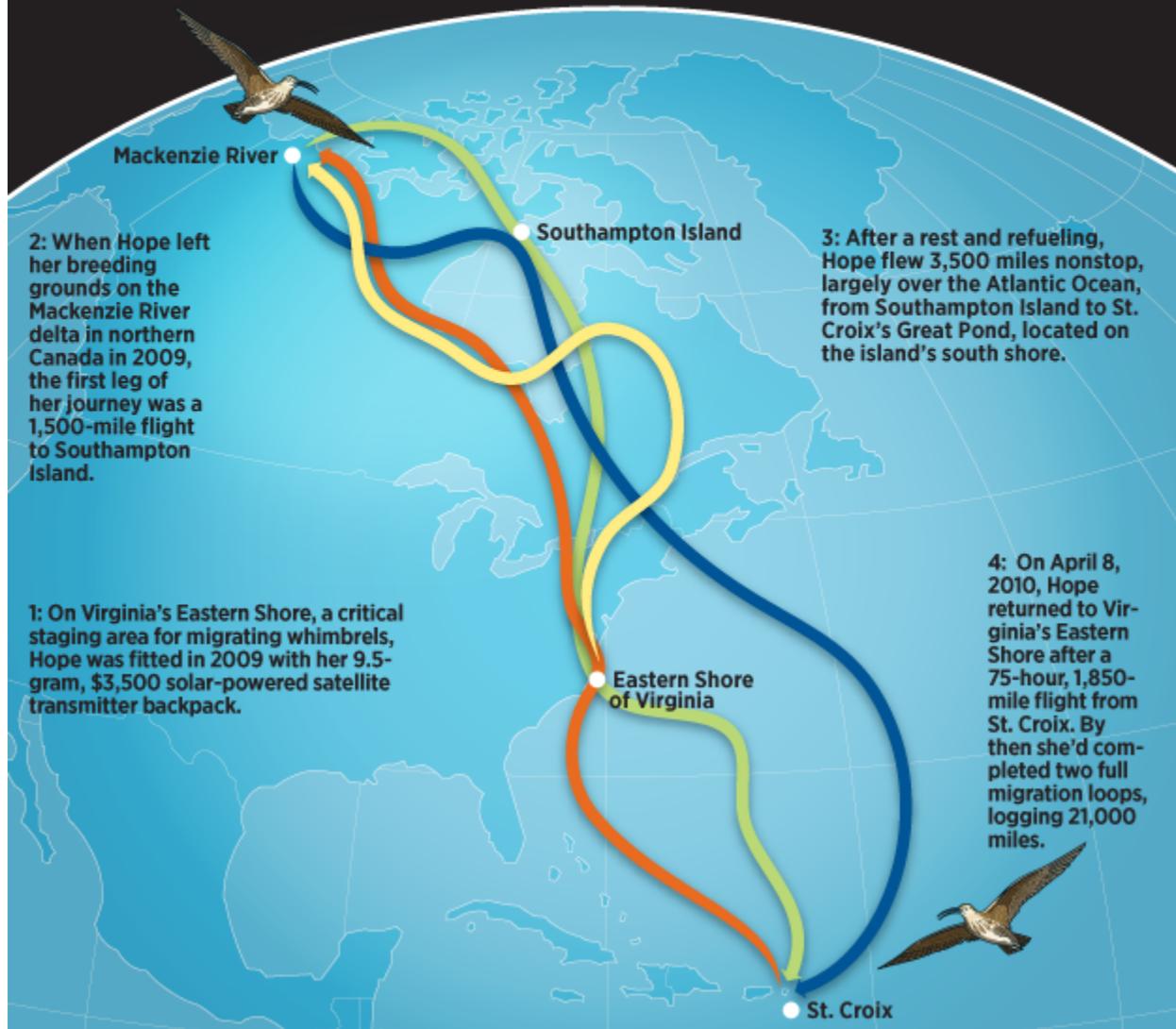
Predators: Adult Whimbrels have few natural predators other than foxes or larger raptors. Their biggest threat is man and the impact he has on their breeding, staging and wintering sites.

Hunters also pose a threat. This is why it’s so important for countries to come together to protect the four sites Hope and her fellow Whimbrels use on their migration routes.



HIGH HOPE: A WHIMBREL'S MIGRATION By the time you read this, Hope the whimbrel should be preparing to leave her winter home on St. Croix for a nonstop, four-day flight to Virginia's Eastern Shore, some 1,850 miles away. There she will rest and fill up on fiddler crabs. Six or seven weeks later she will embark on leg two of her journey, to the upper Mackenzie River in northwest Canada, about 3,700 miles from where she started. Come fall, she'll do this trip in reverse. It is roughly the same round-trip Hope has made for three years, as scientists watched in amazement. By tracing her travels, satellite-tagging research has revealed how much a migrating bird's survival can depend on precise pinpoints on the map. In fact, Hope's story is especially telling because her entire lifecycle hinges on only four places, encompassing just a few hundred acres. This research underscores the need to protect such important bird habitats, for all the Hopes to come.

● Spring Migration 2009 ● Fall Migration 2009 ● Spring Migration 2010 ● Fall Migration 2010





Teacher-Parent Guide

1. How did Hope get her name?

On May 19, 2009 Hope was caught on the banks of Hope Creek in Virginia. She was outfitted and immediately released.

Discussion topic:

- Does your name mean something special, like Hope's does?
- How did she get her name?

2. Why was she caught?

Hope was briefly captured so she could become an important part of a study to follow the migration patterns of the Whimbrel. Very little information existed on where Whimbrels went when they left their breeding grounds; how many stops they make; how long a flight could last or where they winter over.

Discussion topics:

- What is migration?
- Do all animals make a migration every year?
- Do any groups of people do it? What are nomads?
- Why do they do it? ie: following food sources, warmer climate

3. How did Hope help?

Hope is the perfect example of *science with a heart*. She was fitted with a tiny solar-powered satellite transmitter that weighed 9.5 grams, held in place by a Teflon strap. The combination of today's amazing technology



and a vibrant live animal provides information that will help scientists identify and protect the places these birds breed, fly, rest and winter.

Discussion topics and activity:

- Have the kids hold a pound weight (rock, bag of sand...) and then add something that weighs 9.5 grams. They can test to see if they think it was difficult for Hope to carry the weight.
- What other animals have been tagged to give us information?

4. Who is doing the study?

The study is being conducted by the Center for Conservation Biology at College of William and Mary, Virginia Commonwealth University and the Virginia Chapter of the Nature Conservancy.

Field biologist Fletcher Smith has been closely tracking Hope during four round trips from Virginia to her breeding grounds in the sub-Arctic region of Mackenzie River Delta in northwestern Canada, to her staging spot in Southampton Island in the Hudson Bay of Canada, to her wintering spot in the wetlands of Great Pond Bay on St. Croix in the US Virgin Islands.

Discussion topics:

- Discuss the fact that one completed migration is equal to 12,000+ miles. That's equal to five round trips from Los Angeles to New York.
- Have them figure out on a map the four places important for Hope and see how far apart they are.

5. What information has Hope provided?

Hope has revealed information that left everyone watching her amazed. As the director of the Center for Conservation Biology, Bryan Watts says, "Hope has been a real champion." She has recorded over 50,000 miles of



flight during her four migrations. Hope has also shown that she stops in only four places, landing with precision year after year in the same spots.

This surprised the scientists and made them aware of just how important it is to protect these four spots so they can save the species.

Discussion topics:

- Why is it important to know where Hope and other Whimbrels go?
- Why do you think Great Pond Bay is Hope's preferred wintering spot?
- How can we help protect it?

6. What will they do with this new information?

The information Hope has provided showed scientists that they had made many wrong assumptions. In the past they assumed that birds nesting on the west coast of Canada and Alaska just traveled due south to winter in the Pacific. Hope showed that some Whimbrels cross the North American continent to winter in the Caribbean and South America.

According to Fletcher, "What we learned from Hope is that she relies on very, very few places on the Earth to stop and fatten up and move on, whether it's to breeding grounds or wintering grounds. If any of these habitats change, there's real potential for losing a significant portion of the population." With this information they hope to create international programs to protect these habitats and save the species.

Discussion topics:

- What kind of changes do you think could happen?
- Would you like it if someone suddenly came and cut trees near you or built a huge building that took the beach away from you?
- Grand Bay Pond on St. Croix has been designated an "Important Bird Area" by BirdLife International. This listing, and people who care about saving the wetlands, successfully worked to protect Hope's



home at Great Pond Bay from being developed into a resort. What did they do?

- Have you ever been bird watching? What have you seen? Make a list of what you see in one day.

7. Where is Hope today?

In September 2013, Hope's transmitter went silent. St. Croix bird watcher and photographer, Lisa Yntema, sent pictures to Fletcher showing that Hope was fine, but that her antennae had broken off. On November 20, 2013, Fletcher captured Hope and removed the broken transmitter. Hope's transmissions have been the most successful tracking of a shorebird ever completed.

They left her leg band on so she can still be identified by the bird watchers that have been following her for years. Hope has earned what all hard workers do – a happy retirement.

Discussion topics:

- Are you happy for Hope to be retired?
- Do you think it's amazing that one small bird can fly so far and provide so much information?
- What makes Great Pond Bay such a safe haven for Hope and other Whimbrels?



Glossary

Whimbrel - A species of shorebird known for their long-distance migrations.

Migration – A regular seasonal movement of the whole or part of a population with an outward journey followed, sometime later, by a return journey. Most migratory movements involve travelling between breeding grounds and winter quarters at some distance.

Wetlands – Any area of fresh water or marsh, including flowing water and canals. A great deal of conservation effort has been focused on this kind of habitat, whose continued existence is constantly threatened by drainage and reclamation.

Habitat – The kind of place where an organism lives.

Solar-powered – Energy from the sun that is converted into thermal or electrical energy. This tiny panel sent the information to the research station.

Transmitter – The short antennae that showed where Hope was at all times, including how fast she was flying and for how long.

Breeding grounds – Places where birds go to nest and raise their young

Wintering grounds – Places where birds spend the winter that are warmer than their breeding grounds and have great food supplies.

Species – A specific kind of something: “a species of birds”.



How to Become a Bird Watcher

The beauty of bird watching is that it is free. All you need is patience. Quietly sitting in nature, taking in the sights and sounds, connects us to our natural world. Just in Great Pond Bay alone there are more than 75 species of birds, as well as crabs and other animals to observe. St. Thomas and St. John also have great places to bird watch. To successfully bird watch all you need are eyes and birds.

Birds are everywhere – outside your window, at the beach, in your backyard. If you want a closer look, binoculars help a lot. To know what you are seeing use a bird identification book. You never know what you will see, which makes it like going on a treasure hunt every time. There must be a reason there are over 51 million bird watchers in America!

Class activity:

- Watch for birds during recess on the playground, or during any outdoor field trips.
- Organize a bird watching field trip with someone from the Audubon Society in your area.

Important Words for Bird Watchers

Shorebird - The North American term for birds that wade in water to find food.

Binoculars – Glasses that make everything closer and easier to see in detail.

Bird watcher - A person who studies wild birds in their natural surroundings.

Patience – The ability to sit quietly and wait, while enjoying the sights and sounds of nature.



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Hope on her winter territory among the mangroves of Great Pond on 26 August 2016.
Photo by Lisa Yntema.

