

# *Birds*

*A Compare and Contrast Book*



*By Aszya Summers*



# Birds

**A Compare and Contrast Book**

From petite Hummingbirds to tall Whooping Cranes, birds are some of the most diverse animals on the earth. They are found in all types of habitats around the world and are one of the most abundant animals with more than 900 species in North America. Birds live in high-altitude mountains, dense forests, deserts, or near rivers and oceans. Some eat nuts and seeds, while others capture and eat small animals. Most birds fly, but some birds prefer to walk or even swim. Learn what birds have in common, how they are different, and how they are well-suited for their environment in this latest edition in the Compare and Contrast Book series.

Arbordale Publishing offers so much more than a picture book. We open the door for children to explore the facts behind a story they love.

The *For Creative Minds* includes

- Beginning Birders
- Not Just for the Birds
- Whose Foot?
- Conservation Connections

Thanks to Christina Lavalley, Lead Keeper, Animal Ambassadors at Zoo Atlanta for verifying the information in this book.

Arbordale's interactive ebooks read aloud in both English and Spanish with word-highlighting and adjustable audio speed. Available for purchase online.

## **A note for parents and caregivers**

Helping young children develop critical thinking skills is a gift they'll have for life. The book you are holding can help you to help them do just that.

Before reading the book, ask the child(ren) how they think these animals are alike or different. That helps you to understand what they already know or if they have any misconceptions.

After reading, go back through the book together looking at photos to find and discuss things. Ask verbal children to describe or explain what they see. Even young, non-verbal children can find and point to things. For example, have children find or point to:

- bright-colored birds (or with a specific color)
- birds that are flying, standing, or swimming
- birds in/near water, snow, or in a specific habitat
- long/short beaks, long/short tails, talons,
- different types of nests and the eggs

Look at some of the sizes mentioned and measure them out. Have child(ren) find something of a similar size or weight.

Ask children to describe one new thing they learned or found most interesting.

Do the "For Creative Minds" activities in the back of the book with them.

**Aszya** (pronounced Asia) **Summers** has been in the zoo and aquarium field for ten years and has been working with animals in some capacity for over 15 years. After graduating from the University of Wisconsin-Madison with degrees in zoology and environmental studies, she spent time working at aquariums in North and South Carolina and with the International Crane Foundation. Eventually, she moved back home to Wisconsin to work at the Racine Zoo, where she now serves as the Curator of Animal Care and Conservation Education. Her passion is bringing equity and access to environmental education, and she also works extensively with the Advancing Conservation through Empathy (ACE) for Wildlife Network to advance work to increase empathy for animals. She has presented at numerous conferences for zoo, aquarium, and environmental educators around the country. Aszya lives with her snake, Liz, and her lovebird, Sunny.



Aszya Summers

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There are more than 10,000 different species of birds in the world, and over 900 in North America alone! From birds of prey to shorebirds to backyard songbirds, birds are some of the most varied and abundant animals on earth.

What do birds have in common and how are they different?

Piping Plover



Northern Cardinal



American Dipper



American Flamingo



Red-tailed Hawk



Barn Swallow



Common Raven



Northern Flicker



Mallard



White-tailed Ptarmigan



The easiest way to tell a bird from other animals is that birds are always covered in feathers. In fact, they are the only animals that have feathers!

Feathers can look very different on different birds!

Owls, like this Barn Owl, have special feathers that let them fly silently to sneak up on their prey. The feather “dishes” around owl eyes help them collect sounds to find prey.



Atlantic Puffins waterproof their feathers for life in the open ocean and diving to catch fish.



Peregrine Falcons use dark feathers under their eyes, like face paint used by football players, to reduce glare and catch prey in midair.



Other birds, like the Scissor-tailed Flycatcher, use their long tail feathers to impress mates with fancy dances in the air.



Tufted Titmouses have a crest of feathers on top of their heads. They can raise or lower the feathers to attract a mate or to communicate with other birds.



Many male birds have bright feather colors to help them attract a mate. The bright colors also draw attention away from nests if animals or humans approach.

Females are not as bright and colorful to better camouflage when sitting on nests.

Can you tell which are males or females?



Ring-necked Pheasants



Rose-breasted Grosbeaks



Eastern Bluebirds



Wood Ducks



American Goldfinches



Painted Buntings



Northern Cardinals



Wild Turkeys



Ruby-throated Hummingbirds

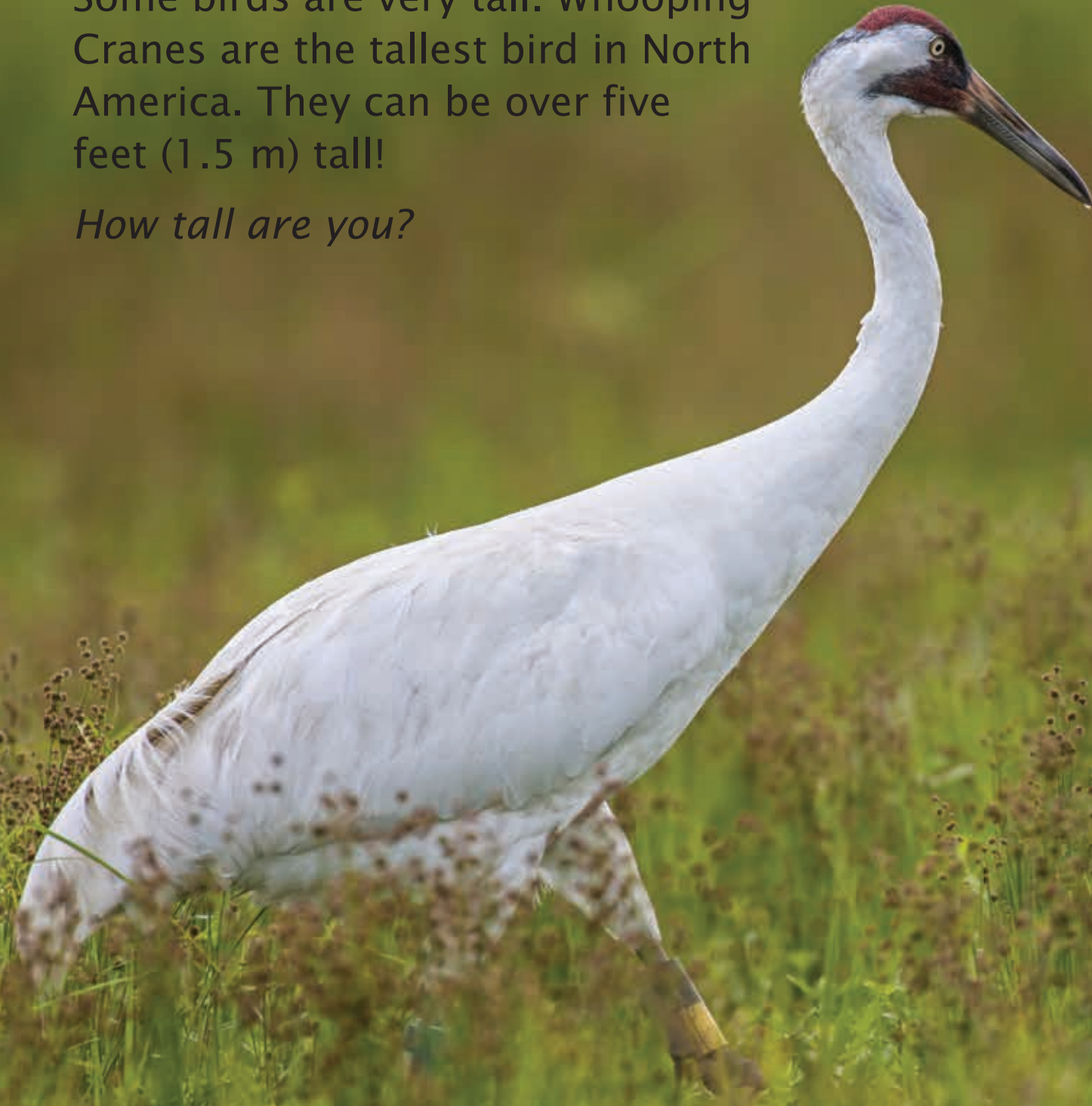


House Finches

Birds come in all different sizes.

Some birds are very tall. Whooping Cranes are the tallest bird in North America. They can be over five feet (1.5 m) tall!

*How tall are you?*



Other birds are tiny. Calliope Hummingbirds are only 3.25 inches (8.25 cm) long—about half the length of a dollar bill!

# For Creative Minds

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## Beginning Birders

If you are interested in looking for wildlife, birds are the perfect place to start! Looking for birds outside is a great way to learn that nature isn't just in parks or special, protected places. You can find birds anywhere and everywhere.

**Tips for finding birds:** Use all your senses to find birds in your neighborhood. Scan anywhere that might make a good home for a bird with your eyes. Maybe there's one napping up in the trees, or in a shady place behind your house. Use your ears too. Birds sing all the time! Quite often, you will hear a bird before you ever see it. Once you hear a bird, close your eyes and see if you can figure out where the song is coming from.



**Follow the signs:** Birds leave signs that they have been hanging around. Check branches for pieces of nests. In the spring, you may get lucky enough to find a whole bird nest or egg pieces! Check tree trunks, especially dead trees, for woodpecker holes. And keep an eye out for tracks, feathers, or poop.



tracks in sand, mud, or snow



feather



bird poop



**Bring them to you:** You can make many easy, homemade bird feeders. Coating a pinecone with peanut butter or honey, and then rolling it in sunflower seeds is a great way to bring everything from goldfinches to cardinals right to your window!

**Observe your new friends:** Build your science skills by watching your new bird friends and writing or drawing what you see. It can be fun to watch what different kinds of birds live in what habitats, or are seen more often in what weather. Use all these tips to become a birding expert!

## Not Just for the Birds!

Life as a bird is very different from ours in a lot of ways, but in some ways it is very similar! Think about each thing that a bird can do below. Describe what tools you use to do some of the things birds do.



To move from one place to another, most birds spread their wings and fly. *How can you fly from place to place?*

When it gets cold, birds tuck in their legs and fluff up their feathers to keep warm. *What can you use when it gets too cold?*

Hummingbirds use a long, thin, hollow beak to slurp liquid nectar out of flowers. *What can you use to drink liquid out of a container?*

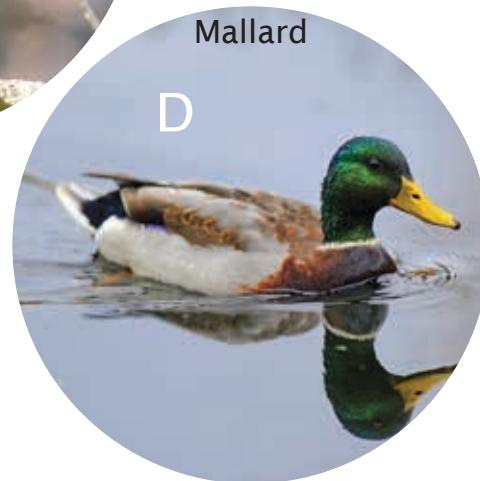
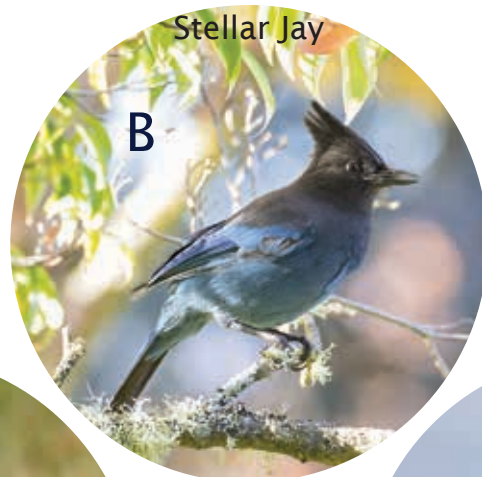
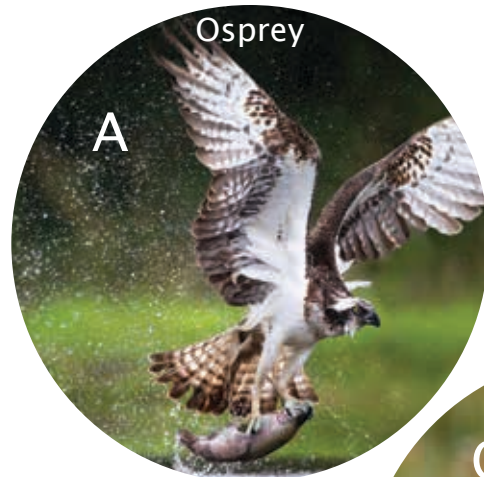
Many meat-eating birds use their sharp beaks to slice meat into smaller pieces that fit into their mouth. *What do you use to cut food into smaller pieces?*

Pelicans use their huge beak to scoop up a mouthful of water and fish, and then drain out the water to keep just the fish! *Is there a tool you can use to scoop solid objects, like fish, out of a liquid?*

Woodpeckers use a strong, sharp beak to peck holes in trees to find bugs. *What tool would we use to make holes in wood?*

## Whose Foot?

With so many birds in so many different places, many of them have lots of different adaptations to help them survive in their habitat. Take a close look at each foot and match it to the bird in its habitat! Think about what each foot might be helpful for.



Answers: 1D-Mallards use webbed feet to paddle and swim through the water. 2A-Ospreys use strong, sharp talons to catch fish. 3B-Stellar's Jays use their feet to grip onto small branches in the trees. 4C-Northern Bobwhites have strong, flat feet as they spend most of their days walking through tall grass searching for seeds.

## Conservation Connections

Some of the most creative conservation solutions have come from the conservation of North American birds. Conservationists, or people who work to protect species from extinction, work every day to protect endangered species across North America. Conservation work requires dedication, hard work, and a lot of creativity.

California Condors nest on cliffs or mountaintops along the Pacific coast. Threatened by habitat loss, hunting and egg collecting, there were only 22 birds left in the wild by 1987. The birds were captured and taken to zoos for breeding. Caretakers raised the chicks using puppets and costumes to teach them all the skills they would need to survive when released back in the wild. There are now over 400 condors in the wild and the zoo-breeding program is still being used.



By the 1940s, the number of Whooping Cranes had dropped from thousands to one flock of less than 30. Female cranes usually lay two eggs a season, but normally only one survives. Scientists gathered the second eggs and raised the chicks using costumes. To protect the cranes from a flood or other disaster, they wanted a second flock of cranes. Conservationists taught the birds a new migration route using an ultralight aircraft by a person in a crane costume. Today, there are hundreds of cranes living back in the wild.

One of the biggest threats to the Bald Eagle was pesticides like DDT. When it was discovered that the chemicals caused eagle eggshells to become too thin to protect the unborn chicks, there were less than 500 breeding pairs of bald eagles in the U.S. After years of research and pushing for more careful use of pesticides, DDT was banned and Bald Eagles began to recover. In 2007, the Bald Eagle was taken off the endangered species list, and today is once again a common sight across North America.





To Mom, Dad, and Jess, for 30 years of tolerating my interruptions pointing out every animal everywhere—AS

A note from the editor: This book uses the names and capitalization recommended by the North American Classification and Nomenclature Committee of the American Ornithological Society.

Thanks to Christina Lavalley, Lead Keeper, Animal Ambassadors at Zoo Atlanta for verifying the information in this book.

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