Ostriches: Giant Birds

A Reading A–Z Level X Leveled Book
Word Count: 1,284

Connections

Writing

Should ostriches be kept in captivity? Why or why not? Write a persuasive essay for or against keeping ostriches in captivity. Use information from the book to support your opinion.

Science

Research two other birds. Write a report describing how these birds are similar to and different from the ostrich.

LEVELED BOOK • X

Ostriches: Giant Birds

GIANTS OF THE ANIMAL WORLD

Written by Jeff Buckner

www.readinga-z.com

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Focus Question

What characteristics enable ostriches to survive in the harsh conditions of the African savanna?

Words to Know

adapted
courts
defensive
dominant
graze
hostile
indentation
omnivores
plumes
prehistoric
savanna
torso

Front and back cover: Ostriches can cover 10 to 16 feet (3–5 m) in one stride.

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Giants of the Animal World
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Correlation

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Reading Recovery	40
DRA	40

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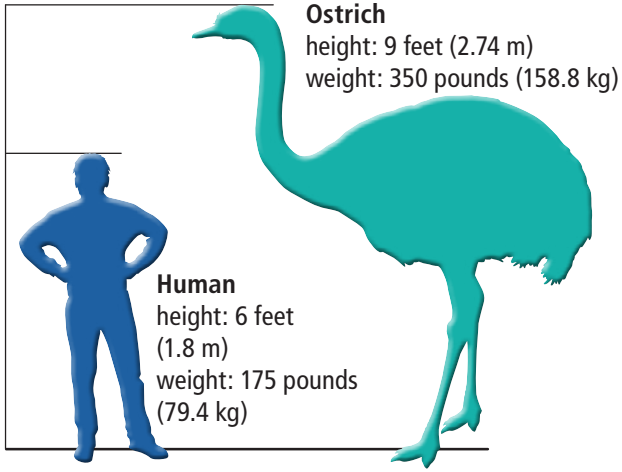
How Big Is It?



What Is It?

When we think of birds, we usually imagine small, delicate creatures that fly, sing sweet songs, and live in tiny nests in trees . . . but then there's the ostrich. If you were to look at a picture of ostrich legs without knowing what you were looking at, you might first think they were the legs of a reptile or **prehistoric** creature. So, exactly what kind of animal is an ostrich?

Ostriches are the world's largest living birds. Even though they can't fly, are the opposite of small and fragile, and can make loud, hair-raising sounds, they are still birds. As adults, ostriches are gigantic—far bigger than the tallest human beings. These "little birdies" are powerful and can expertly defend themselves against some of the fiercest animals in the wild.

Ogling the Ostrich

From Claw to Tiny Head

Most birds have four toes on each foot—but not the ostrich, which has only two. It also has a secret weapon: a claw on the inside toe of each foot. This feature enables the ostrich to dig firmly into the ground and run faster than any other two-legged animal on Earth. With the help of extremely powerful legs, an ostrich can sprint up to 45 miles per hour (72.4 kph). It can maintain speeds of up to 30 miles per hour (48.2 kph) for long periods of time. In a single stride, an ostrich can cover between 10 and 16 feet (3–5 m).

An ostrich's wing and **torso** feathers are another of its distinguishing characteristics. Most birds' feathers hold tightly together to enable them to fly. Since an ostrich doesn't fly, its feathers are not as rigid as those of many other birds; in fact, they're soft and fluffy. An ostrich uses its wings for balance, which helps it run exceptionally well and make very sharp turns. The feathers also protect it from sunburn.

Ostriches deliver a powerful kick to defend against enemies.

An ostrich's long neck helps it in multitudes of ways. With this added height, the ostrich can hold its head up high to scout out new places, find food, or spot oncoming danger. Its eyes are the biggest of any animal on land. They measure 2 inches (5 cm) across and are adorned with long, luscious eyelashes.

Surprisingly, everything about an ostrich is supersized except for its head and brain. Its brain is roughly the size of one of its eyes, which is quite diminutive for such a large, powerful creature. You could say that ostriches are a bit bird-brained!

What Makes an Ostrich a Bird?

All birds

- have a backbone
- have feathers
- have wings
- have a bill
- lay eggs
- are warm-blooded

Ostriches use half as much energy as humans when they run because their leg *tendons* (connective tissues) are twice as "springy."

Ostriches and Dinosaurs

We know the speedy ostrich is huge and powerful, but where did it come from? Why can't it fly, and how did it get to be so humongous? Nobody really knows the answers to these questions, but there are many theories about the ostrich.

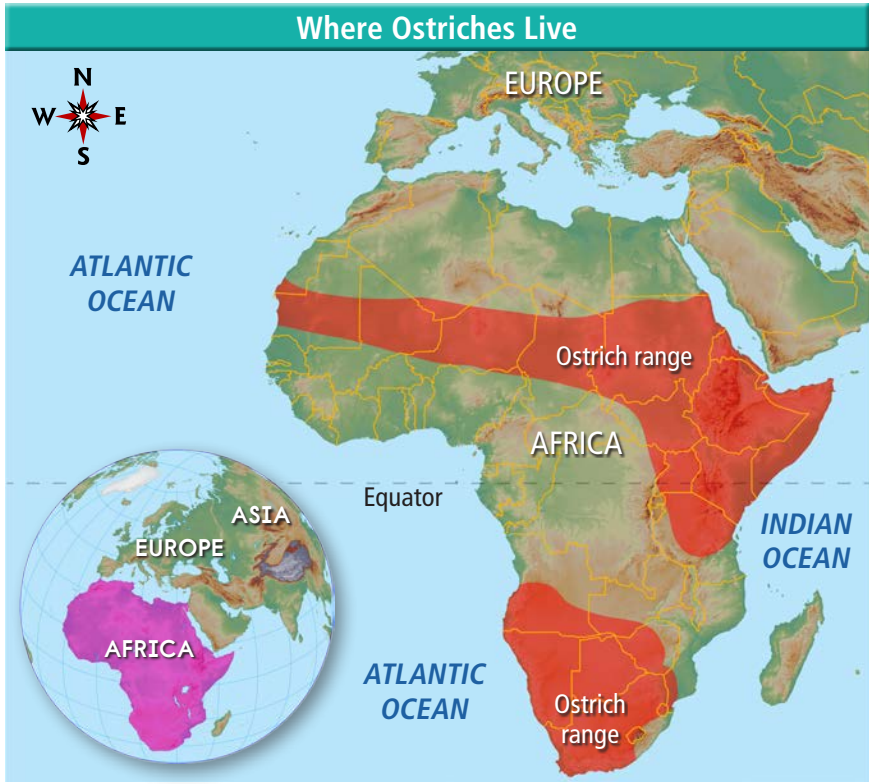
A recent theory suggests that millions of years ago, early ancestors of the ostrich were much smaller and maintained the ability to fly. Some scientists think that dinosaurs especially liked to eat them. Fortunately for these birds, they could fly away and escape. Once dinosaurs were extinct, the birds had fewer enemies and, therefore, much more time to **graze**. Over a long period of time, they eventually became the mammoth, flightless birds we are familiar with today.

And the Winner Is…

Ostriches are among the closest living relatives of *T. rex*.

Ostriches can run an average of 30 to 45 miles per hour (48.3–72.4 kph) while *T. rex* was estimated to clock in at approximately 10 to 25 miles per hour (16–40.2 kph).

In another recent study, the resemblance of the ostrich to *Tyrannosaurus rex* caused some scientists to determine that there had to be a connection. The anatomy of an ostrich leg and a *T. rex* leg are extremely similar—so similar, in fact, that scientists put an ostrich on a treadmill to understand more about the speed of *T. rex*. Because of this analysis, we know that a physically fit ostrich would definitely outrun a beefy *T. rex*.



Ostriches live on ranches all over the world but are only native to Africa.

Ostrich Territory

Ostrich Origins

In truth, we haven't quite figured out where on planet Earth this extraterrestrial-looking bird originated. Fossils of ancient ostrichlike animals have been discovered in China, Europe, and Canada. The study of these fossils helps us make educated guesses about whether early relatives of ostriches could fly, where they originated, and how they ended up in Africa, but nobody knows for sure.

Home, Home, on the Plains

Today, ostriches live in the eastern and southern plains of the African continent. This dry region, where abundant scrubby grasses and few trees grow, provides a suitable home for these birds.

The **savanna** is a land of extremes, with temperatures ranging from very hot during the day to quite low at night. The average yearly temperature ranges from 68 to 86°F (20–30°C), with slightly cooler temperatures in winter. Ostriches respond to these extreme temperatures by fanning themselves with their feathers in the daytime to keep cool and covering their legs with their feathers at night when the temperature drops.

The Latin name for the ostrich is *Struthio camelus*, meaning "camel-like." Camels and ostriches both have long necks and prominent eyes and can go without water for long periods of time.

Ostriches get a lot of water from the plants they eat and can go for long periods of time without drinking.

Veggies with a Side of Stones

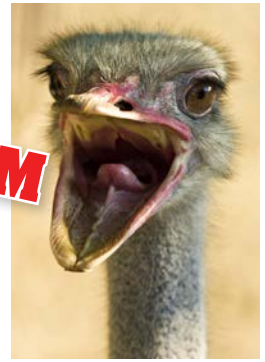
Ostriches eat just about any kind of vegetation. They are **omnivores** that spend most of their time grazing on leaves, seeds, fruit, and plant roots. They also enjoy the occasional insect and lizard.

Since ostriches are toothless, they need to eat stones to aid their digestion. An adult ostrich carries about 2.2 pounds (1 kg) of stones in its *gizzard* (a digestive organ) to help it "chew" its food. These stones, with the help of digestive fluids, grind the food before it passes into the intestines—and what long intestines ostriches have! Ostrich intestines are 46 feet (14 m) long, which is about twice as long as human intestines.

Ostrich Enemies

Ostriches have many enemies in the wild, including lions, cheetahs, leopards, and hyenas. Also, vultures and jackals steal and eat ostrich eggs. Since ostriches have long necks and large eyes, and are extremely alert, they can spot danger from a great distance and escape. When they need to stand their ground and fight, ostriches have a couple of strong **defensive** moves they rely on. Their powerful, kicking legs and claws can cause serious damage to any animal.

In the past, people hunted ostriches for their beautiful **plumes**. The feathers were so popular as decoration for hats and dresses that ostriches were in serious danger of extinction. Today, ostrich plumes are not used nearly as much.



A male ostrich makes a loud booming sound when it encounters a predator.

Living Large

Ostriches can live separately or in herds of five to fifty or more birds. While they prefer to stay by themselves, ostriches may peacefully hang out and share grasslands near other grazing animals such as zebras and antelopes. The other animals benefit from the ostrich, which makes loud noises to warn when danger is near.

Ostrich herds usually consist of one **dominant** adult male (the rooster), several females (the hens), and ostrich chicks. The male ostrich **courts** several females and chooses which ones can and cannot become members of the herd. Once his herd is established, the male ostrich digs a shallow **indentation** in the ground—his herd's nest. The dominant female lays approximately six eggs in the nest. The eggs are the largest of any bird, weighing about 3 pounds each (1.4 kg). This number one hen allows other hens to share the nest, but her eggs are kept safest in the center. Egg-sitting duty is shared, with the dominant male taking the night shift and the dominant female working the day shift.

A male displays his feathers during a mating dance.

After about forty-two days, an ostrich chick hatches. The ostrich babies are the size of adult chickens and begin to run almost immediately after hatching. The male teaches the chicks how to survive in the wilderness. With any luck, an ostrich may live to age fifty or older.

Ostrich chicks are close to adult size in just six months.

Wowser!

Myth: Ostriches bury their heads in the sand when they're afraid. The truth: They get very low and put their necks close to the ground to hide from predators. Ostriches are no chickens—they will fight if they have to!

Ostriches keep pace with many other speedy animals on the plains.

Odd Duck and Scientific Wonder

Ostriches are grand, mysterious birds. They are fast-paced, skilled runners that stand up to predators. They have **adapted** to a **hostile** and dangerous environment without the ability to fly.

For many reasons, scientists continue to be fascinated with this swift and flightless creature. Studies will continue to discover what makes the ostrich unique, and what traits this feathery mammoth could possibly have shared with the *Tyrannosaurus rex* millions of years ago.

Glossary

adapted *(adj.)* changed to fit a new or specific situation or environment (p. 15)

courts *(v.)* tries to attract a mate (p. 13)

defensive *(adj.)* of or relating to an action of protecting oneself from harm or attack (p. 12)

dominant *(adj.)* more important, effective, or powerful than others (p. 13)

graze *(v.)* to eat grasses or other plants in a field (p. 7)

hostile *(adj.)* very unfriendly (p. 15)

indentation *(n.)* a shallow hole or dimple in a surface (p. 13)

omnivores *(n.)* animals that eat both plants and animals (p. 11)

plumes *(n.)* feathers or a group of feathers on a bird(p. 12)

prehistoric *(adj.)* of or relating to the time before recorded or written history (p. 4)

savanna *(n.)* a flat grassland with few trees (p. 10)

torso *(n.)* the main part of an animal's body that does not include arms, legs, or a head (p. 5)