

Back From the Edge

Recovered Animal Species

by Elizabeth Massie



Table of Contents

Introduction	3
Chapter One: <i>Hello, Good-bye</i>	5
Chapter Two: <i>Tackling the Problem</i>	10
Chapter Three: <i>The Bears Are Back</i>	19
Chapter Four: <i>Wolf Tracks</i>	27
Chapter Five: <i>See You Later, Alligator?</i>	34
Chapter Six: <i>A Return to the Skies</i>	43
Chapter Seven: <i>Fishing From the Sky</i>	50
Chapter Eight: <i>Gray Giants of the Deep</i>	57
Chapter Nine: <i>Seaside Entertainers</i>	65
Chapter Ten: <i>Our Stately, Feathered Symbol</i>	72
Chapter Eleven: <i>Grassland Tunnelers</i>	80
Chapter Twelve: <i>Looking Ahead</i>	88
Glossary	94
Index	96

Introduction

Have you ever gone on a picnic? As you sat brushing away ants and dodging flying insects you might have thought, *There sure are a lot of bugs in the world!* Have you ever gone to the zoo? You might have been amazed at all the kinds of monkeys, snakes, seals, and wild cats you saw there. Have you ever put a birdfeeder near your window? Perhaps you were surprised at all the different kinds of birds that flew in for a meal. We share Earth with lots of other animals, many of which you have probably never seen before.

No one knows exactly how many animal **species** there are in the world. This is because many of them have not even been discovered yet.



A birdfeeder gives people the chance to see a wide variety of bird species gather at one place.

What Is Biodiversity?

Biodiversity is the variety of all organisms that live on Earth. The word comes from *bio*, meaning “life,” and *diversity*, meaning “assortment.” Earth’s biodiversity includes the assortment of all the species of animals, plants, and other living things such as fungi and bacteria. Biodiversity also refers to the **habitats** of living things and the behaviors of those living things.

What kind of diversity is there on our planet? To get an idea, just think back to that picnic, the visit to the zoo, or all those feathered visitors to the birdfeeder. Some living things, such as elephants and whales, are huge. Others are tiny, such as ants, gnats, or single-celled amoebas. Some organisms live in the desert. Some live in tropical rain forests. Others make their homes in cold regions where the ground stays frozen. Still others live in the deep waters of the ocean, on rocky mountain cliffs, or in the warm waters of a swamp.



Giraffes in grassland



Each living thing has a habitat best suited to its life. What do the habitats have in common? What are some differences?

But why should people care about biodiversity? Some believe that life on Earth is more beautiful and interesting because of the variety of living things. And certainly, caring about other species is considered kind. But beyond beauty and kindness, are there other reasons why we should try to protect the many living things that share Earth with us?

People depend on biodiversity for air, water, food, and medicine. Our air is recycled by plants, which take in carbon dioxide and release oxygen. Many of these plants are able to reproduce because different species of insects and animals pollinate their flowers. There are about 80,000 plant species in the world that are used as foods. Animals also provide food for many people. And animals help break down plant matter into fertilizer to help new plants grow. Many medicines come from different plant species. When species become extinct, humans lose, too.

See You Later, Alligator?

One bright morning, Jackal went down to the watery swamp to catch himself some dinner. He was so hungry he stuck his paw down into the murky water for a crab without looking first. Snap! Alligator, who had been hiding in the reeds and mud, caught Jackal's paw in his strong jaws! Jackal was terrified. If I don't get free, Alligator will pull me down and eat me up! he thought.

Then Jackal played a trick on Alligator. He said, "Hey, Alligator! I see you think that old bulrush root is my paw! Well, I hope you find it very tasty!" Alligator, who couldn't see well down in the mud and reeds thought, Oh, I've made a stupid mistake! and he let go of Jackal's paw. Jackal laughed and ran away, calling, "Thank you, Alligator, for setting me free!"—a partial retelling of the folktale "Jackal and the Alligator"



Folktales are stories or legends that began as oral tradition, or stories told aloud and passed down from generation to generation. Often the main characters in folktales are animals. The animals in these stories have adventures and learn lessons. The way the animal characters behave represents the way people who created the stories thought of the animals. Pigs are often lazy, and owls are often smart. Cats are often curious. Alligators are often hungry villains that will try to eat any other character that happens along.

Where did this alligator stereotype come from? Are alligators the ravenous, cruel creatures shown in folktales? Are alligators to be feared and hated? Or is there more to alligators than big teeth, big mouths, and big appetites?

Some Facts About Alligators

When people think of Florida or the swamps of Louisiana, they often think of alligators. Alligators are large reptiles that both fascinate and frighten people. Gazing at an alligator is like looking back in time at a prehistoric creature from the days of the dinosaurs.

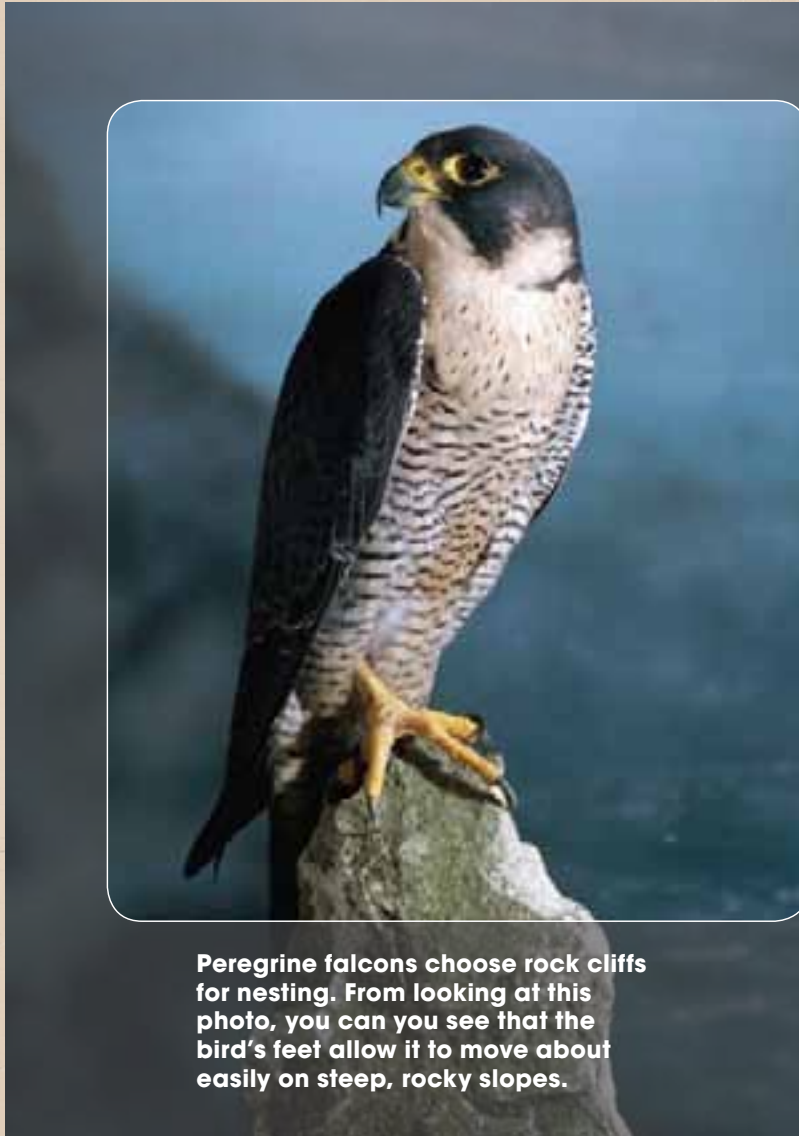
Spanish explorers who sailed to the southern regions of North America in the 16th century encountered alligators in rivers and swamps. They called the animals *el lagarto*, which means "lizard" in Spanish. Over the years, however, English speakers incorrectly pronounced *el lagarto*. At first they called the large animals *aligarto*. Then it changed to alligator. That is the name we call it today. The American alligator's natural habitat



An adult American alligator

During ordinary flight it can go as fast as 90 miles per hour. Some believe this makes the peregrine falcon the fastest flyer of all birds. It may even be the fastest animal in the world. This makes the falcon a unique and special bird.

Peregrine falcons do not nest in trees like many other birds. They prefer to nest on high cliffs. Other times, they can be found nesting high up on the sides or roofs of tall city buildings. To attract a mate, the male falcon will perform loops, dives, and rolls in the air. He also calls to the female with a cry that sounds like “wichew!” If the female is impressed, she accepts him as her mate. The female then selects the nesting site. The site, or eyrie, is usually a depression in



Peregrine falcons choose rock cliffs for nesting. From looking at this photo, you can see that the bird's feet allow it to move about easily on steep, rocky slopes.

rocks, dirt, or sand. Peregrine falcons do not add grasses or twigs to the nesting site.

A female falcon will lay a **clutch** of three to five brown-speckled eggs. Both parent birds will sit on the nest, though the female sits most often. After 32 days, the eggs hatch.

A newly hatched falcon is called an *eyas*. The plural of *eyas* is *eyasses*. Eyasses are covered with soft, white down, and they have big feet. Like most baby birds, eyasses are very helpless when they are young. Because of this, one parent stays with the babies while the other goes off to hunt for food.

Peregrine chicks eat a great deal, and they grow very quickly. They double their weight in just six days. By the time they are three weeks old, they will be ten times as big as they were when they hatched.

At five or six weeks of age, the young falcons have lost their white down and now sport brown feathers. At 40 days of age, they test their wings and begin to fly. While at first the parent birds fed the babies in the nest, they now lure their children out of the nest with food. Once in the air, the young birds practice chasing each other. This may look like fun but it is important work. It teaches them the important hunting skills they will need in order to survive. It takes a young falcon about six weeks to learn how to hunt. Once the falcon is able to successfully catch its own food, it leaves the nest for good and begins life as an adult.

Male and female falcons usually mate for life. This means they keep the same partner, producing offspring each year. If one of the two dies, however, the surviving falcon may seek out a new mate.

There are few natural enemies of the peregrine falcon. Raccoons or owls will sometimes take chicks from their nests, but the adults are rarely attacked. A falcon in the wild may live as long as 15 years.

The word *peregrine* means “wanderer,” and the peregrine falcon has certainly earned that name. Some North American peregrine falcons migrate very long distances, from the Arctic tundra all the way to South America. They may fly as many as 15,500 miles during the year!

Grassland Tunnelers

The grassland seems to be still, with only a few birds drifting on a breeze in the sky overhead. Suddenly, a little nose appears out of a mound in the ground, followed by a sleek, furry body and a short, upturned tail. Then other little creatures appear from holes in the ground. They move away from the holes to graze on nearby grasses and seeds. As they eat they keep careful watch to see if any unwelcome guests are approaching by land or by sky. If something dangerous comes along, these animals will warn each other. They will all dash back into their underground homes.

What is this unique place and who are these special creatures? It is a prairie dog town. The animals are Utah prairie dogs.

Busy Burrowers

The Utah prairie dog is a small mammal. It is classified as a rodent. Rodents make up the largest group of mammals in the world. Rodents include mice, rats, beavers, woodchucks, voles, chipmunks, squirrels, and, of course, prairie dogs. The prairie dog is a burrowing rodent, which means it digs holes in the ground in which to live.

The reddish-brown color, white-tipped tails, and black marking above the eyes make the Utah prairie dog easy to distinguish from the other four types of prairie dogs that live in North America. An adult Utah prairie dog averages 12 to 14 inches in length and they weigh around 1 ½ to 3 pounds. The prairie dog has short legs and claws that are used for digging.

The Utah prairie dog's natural territory is located in the southwestern portion of Utah. This land is flat and covered with shrubs, grasses, wildflowers, **forbs**, and other seed-bearing plants.

Social is a good word to describe the behavior of prairie dogs, often just called dogs. They tend to watch out for themselves and each other with equal attention. Prairie dogs live in large groups called towns or

Diagram of a Prairie Dog's Burrow



colonies. There may be hundreds of prairie dogs in one town or in cases where the animals are not disturbed, as many as 1,000 or more. Within the prairie dog town, the animals live in family groups called coterie or clans. There may be as many as 26 dogs in a coterie. A coterie will have a number of burrows with as many as 70 entrances. A coterie's home territory covers about one acre.

search of food. Polar bears feed on seals, walrus, and birds. They also eat the carcasses of dead whales when they find them.

With climates changing, the snow and ice packs on which the polar bears travel to hunt have been melting and thinning. How does this affect the bears? First, it makes it much harder to find prey. A bear may find itself trapped on an ice pack that has broken free. Although the bears can swim, the distance to the next ice pack may be so far that the bear becomes exhausted. Some bears may not be able to find food as their frozen habitat shrinks.

Numerous government and private organizations are trying to come to the polar bear's defense. In 2006, the World Conservation Union (IUCN) declared polar bears to be "**imperiled.**" It predicts that over the next 45 years the number of polar bears will drop 30%.



The polar bear has adapted to a very cold habitat.

The U.S. Fish and Wildlife Service has proposed that the polar bear be listed on the Endangered Species List as threatened. While they wait for a decision, these organizations continue to study the polar bears' situation. FWS Director H. Dale Hall said, "We're trying to find out if anyone knows more than we do right now on how fast the ice is melting and how much is melting and about the relationship between polar bears and ice."

John Kostyack of the National Wildlife Federation said, "The habitat of the polar bear is literally melting away under its feet." He added, "We are trying to light a fire under the federal government to take action that everyone now knows is necessary."

Some sportsmen and people in the oil industry don't agree that polar bears need protection. Putting the bear on the Endangered Species List will limit hunting. It will also put restrictions on oil drilling in the Arctic.

Should the polar bear be nationally and internationally protected? If it is, how will this affect humans' ability to find the fuel they need for so many things? If it isn't, will the polar bear become extinct in the 21st century? These are questions people need to discuss and decide upon soon.

Sea Turtle and Penguin Dilemmas

Another creature facing trouble with the climate changes is the sea turtle. The turtle is an ancient animal. Fossils show they have been around for about 200 million years. Yet with the rising of Earth's average temperature, several species of turtle are in trouble.

One example of this is the loggerhead turtle population in Florida. Sea turtles such as the loggerhead lay their eggs in the sand on the beach. The sex of the baby turtles is determined by the temperature in which the eggs incubate. In warmer temperatures the embryos develop into females. In cooler temperatures the embryos develop into males. If the beach temperature remains fairly steady as it has in the past, then there will be a balance between male and female turtles hatching. Changing climates could affect this balance. If the average temperature of the beach rises 2° C, then the turtle eggs will all develop into females. There will be no more males born there. Without male turtles, the species will be in danger.