

# WEIRD GLOSSARY

This isn't your typical word bank! Nowadays, anyone can look up a dictionary on a phone—yet you took the time to flip to the back of our book and scan a QR code to get here. For your hard-earned effort, below are fun facts and weird thoughts—disguised as definitions—to help you master key vocabulary related to wildlife conservation:

- **Biodiversity** — “Bio” means life and comes from Greek while “diversity” means variety and comes from Latin. “Biodiversity” is a hybridism, or a mashup of words, that means the variety of life that exists in any one place.



- **Captive Breeding Program** — Let’s imagine the great outdoors as a giant sports arena and an endangered species as a team that’s losing so badly that they need a “time out.” A captive breeding program is a controlled area—like a zoo—where animals can be brought to recover (and reproduce) before they return to their natural home.

- **Carbon Footprint** — Did you know that you have an invisible footprint? Wherever you go, you impact the world. When you breathe, your lungs turn oxygen into carbon. But too much carbon in the atmosphere has led to our planet getting hotter. As a world, we need to reduce how much carbon we produce. Some things we can’t change—like, breathing. But others we can. If we eat less meat or travel by bike instead of car, we leave behind a smaller footprint.



- **Climate** – When we talk about "climate," we're referring to how weather relates to time. Here's a bad example: If you ever meet a Martian and the only thing you can think of asking is, "How's the weather this time of year on Mars?" what you're really saying is "How's the climate?"—also, "I'm a boring Earthling."

- **Climate Change** – Over many years, the climate in any one region on Earth evolves naturally. But the term "climate change" refers to how human activity is causing climates around the world to change in an unnatural way.

- **Climate Crisis** – The term "climate crisis" acknowledges that human-made climate change is a problem that calls for urgency and action.

- **Colonization** – Throughout history, people have taken over territories that did not belong to them where other cultures already existed. "**Colonists**" are the people who force those who rightfully live in those territories to move or change. If you live in North America, you likely live on colonized land. I am writing this glossary in Los Angeles, the traditional territory and home of the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples.

- **Conservationist** – To conserve means to save or to prevent natural resources from going to waste. "**Conservation**" describes the act of protecting the environment, while a "conservationist" is the individual who acts on nature's behalf. If you don't identify as a conservationist, by reading *The Weird Animal Hour* you are—at the very least—a conservationist in the making.



• **CRYPTOZOLOGIST** – "Crypto" means hidden or secret while "zoology" is the scientific study of animals. Put the words together and you get "cryptozoology," the study of creatures whose existence have yet to be proven. By reading this book, you are also a cryptozoologist in the making.

• **DEFORESTATION** – To make houses, furniture, and paper products (like books), human civilization uses timber. "Deforestation" is what happens when we cut down trees for manufacturing and land development without any intent or plan to help the forest regrow.

• **ECO-SYSTEM** – Why is deforestation a problem? For starters, a forest is an ecosystem, or a community of living organisms. If you cut down a forest, lots of living beings lose their homes. When we clear trees or pollute oceans, we destroy communities of plants and animals.

• **ECO-TOURISM** – If our book has taught you nothing—*really, nothing?!—*maybe it's that there are magical animals wherever you go. Eco-tourism is the act of traveling to another corner of our world to experience its nature in a responsible way. The goal of eco-tourism is to learn about and enjoy nature while having as little of an impact on the environment as possible. What you spend as a tourist benefits the economy and people who live at your destination.

• **ENVIRONMENTALISM** – In this context, the suffix "ism" suggests a "belief" or "practice." If you are an **environmentalist**, you likely believe corporations making money isn't more important than its cost on the environment.

Likewise, you probably also take action in your day-to-day life to help nature.



As an example: When you go grocery shopping, if you remember your reusable bags, choose to eat less meat, or walk instead of driving, you are practicing environmentalism.

- **Extinction** – Once upon a time, some dinosaurs...did not live happily ever after. Extinction is the complete disappearance of a species from Earth. In modern times, too often human activity is the root cause for why animals become or are vulnerable to extinction.

- **Family** – In the scientific classification system, a "family" designates a group of animals that are closely related. For example, grizzly bears, polar bears, and giant pandas are all part of the same family (Ursidae).

- **Genus** – In the scientific classification system, a 'genus' designates a group of animals that are even more closely related than a "family." Whereas both grizzly bears and polar bears are in the same genus (Ursus), giant pandas are more distantly related from them and belong to a completely different genus (Ailuropoda).



- **Global Warming** – Because of how we live, our planet is getting warmer. When we heat our homes, drive cars, and make and ship goods around the world, too often we burn fossil fuels. Those combusted gases collect in the atmosphere where they get stuck. It's kind of like a one-way traffic jam. Light from the sun can enter our atmosphere but cannot escape. From year to year, this leads to both a gradual increase in the planet's temperature and a catastrophic impact on the world's overall climate.

- **Habitat Loss** – When we cut down forests, build on natural lands, and generally harm the environment, that destruction of "habitats," or the spaces where animals live, is known as "habitat loss." Likewise, if our Weird Animal **the GIANT-giant panda** stepped on your home or sat on your local coffee shop, you would lose *your* habitat.



• **HISTORIC RANGE** – Picture your living room before versus during a game of "The Floor is Lava." Before the game begins, you can go anywhere. Afterwards, you're stuck to the couch and any cushions you can use as stepping stones.

The concept of "historic range" represents where a species once lived compared to its present-day home and territory. Due to human activity, many species now have less land to live on because we've introduced so

much metaphorical lava to the game of life.

• **ILLEGAL TRADE** – Our friend the pangolin, sadly, is the most trafficked animal in the world. Even though international law forbids it, people still capture and sell pangolins. Too often, poachers kill the animals they capture—in the case of pangolins, to illegally sell their scales. In addition to wildlife, illegal trade also impacts plant species.

• **INDIGENOUS COMMUNITIES** – Where I live in Los Angeles is the traditional territory and home of the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples. Indigenous communities have a historical connection with the land, and along with that heritage comes an intimate knowledge of the land's native species. That value system—tending to nature instead of tearing it down—is one of many reasons to raise up indigenous voices in speaking up for the environment.

• **INVASIVE SPECIES** – Although not intended as an environmental allegory, *The Cat in the Hat* is a great representation of the chaos "invasive species" can wreak on native habitats. When you add an animal to an ecosystem where it doesn't naturally



live, the consequences are CAT-astrophic. When native and invasive species are forced to compete for the same resources, often the native species loses out.

- **introduced predators** – Whereas an invasive species can be a plant or animal, introduced predators are generally animals that humans have transported to a new country or habitat where they don't belong.

A few of our Weird Animals are endangered, no thanks to introduced predators. For example, the Kakapo nearly went extinct because European settlers brought stoats, rats, and cats to New Zealand.

- **light pollution** – When you sleep, you turn off the lights. Similarly, the health and well-being of ecosystems are impacted by the artificial lights we keep on at night.

For green turtles, when hatchlings emerge, they locate the moon and follow it to the ocean. If there is too much light pollution, like house lights and street lights, the hatchlings can't locate the moon and get lost. During turtle nesting season, that's why there's a movement to "turn out the lights."



- **Migratory Corridors** – From season to season, certain animal species travel to find food and to reproduce.

For green turtles, they follow ocean currents across the globe. Other animals, like the pronghorn, travel by land where human development can block or interfere with their natural routes. The path a pronghorn needs to get to their destination is called a migratory corridor.

Pronghorns in Wyoming follow a 200-mile migration route. Now that's epic!

- **MYTHOLOGY** – *The Weird Animal Hour* blends zoology with cryptozoology and mythology.

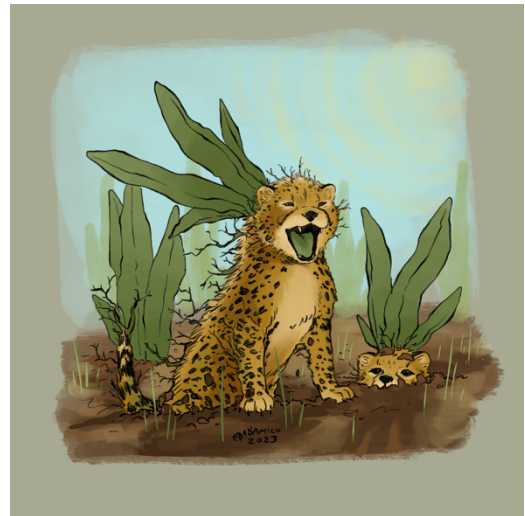
Mythology is the collective legends of our world and its cultures. Each culture has different myths. These myths feature heroes, gods, and supernatural beings. Each myth speaks to the cultural identity and history of its place of origin.

- **NATIVE PLANTS** – A few years ago, one of my parents' neighbors imported a palm tree to make their Pennsylvania home feel more like the Caribbean. Unfortunately, palm trees are not native to the Northeast and, come winter, the tree died.

For thousands of years, native plants have evolved to live in a very specific corner of our world. If you have a garden, research what plant species are native to where you live. Generally, native plants are easier to care for as they are better adapted for the local climate.

- **NATIVE SPECIES** – Quite simply, "native species" are the plants and animals who have evolved to live in a specific region. Cheetahs are a native species to various parts of Africa.

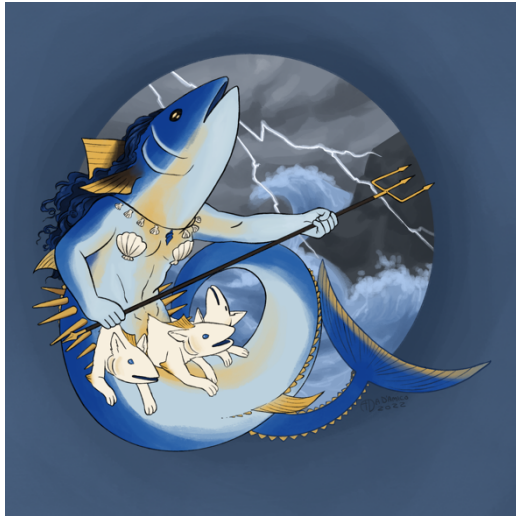
- **NATURAL PREDATORS** – Cheetahs are also "natural predators," which means within their local habitat, they get their energy by eating other animals.



Here's an important distinction: If you take a predator out of its natural habitat (for instance, if you took a cheetah to Florida), it stops being a natural predator and instead becomes an invasive species.

- **NON-PROFIT** – Throughout *The Weird Animal Hour*, we mention organizations whose mission is to save endangered wildlife. We've made a [list of non-profits](#) that benefit the sixty species featured in our book. These organizations do not look to make money. Instead, they seek charitable donations to sustain their operations, so they can continue helping animals.

• **Ocean Warming** – Not to be confused with "pool warming," which is when your cousin pees in the pool, "ocean warming" is the direct result of global warming. When we burn fossil fuels, a lot of the heat we create has nowhere to go. Some gets stuck in the atmosphere, while most of that heat ends up being absorbed by the oceans. This excess heat harms marine habitats.



• **Overfishing** – Imagine a cute koi pond. A giant koi monster waits eagerly by the water's edge. You tell the monster, "You can eat a couple of the fish today. But not too many. If you wait, they will reproduce, and as they have offspring, you will have enough fish to eat for the rest of your life." If the monster heeds your advice, congratulations, you will have created a sustainable fishery. If the monster doesn't listen, soon you won't have any fish, which is what's happening with our modern fishing industry. We're "overfishing," which means we're eating too much fish, and the fish can't repopulate quickly enough.

• **Poacher** – Picture a cartoonish villain from an animated film. To start the film, the villain traps and captures our main character, who's an endangered species. Now take a step back from this fictionalized depiction of an evil person to imagine the real-life context of who this hunter is as a human being. Many poachers capture or kill wildlife because it's the only way that they can support their families. A large part of addressing the environmental issues facing our world is to uplift poorer communities, so they're not financially dependent on industries that hurt nature.

• **Pollution** – Some pollution is easy to see. Like trash. Or smog. Sometimes, the harmful substances we add to the environment are harder to spot. Like the chemicals in fertilizers that wash away and enter our water streams. All forms of pollution affect the water, air, and land we depend on, and that impacts the health and well-being of all animals, people included.



- **REINTRODUCTION PROGRAM** – Let's return to the analogy we used to define a "captive-breeding program." If a species is like a sports team, sometimes a species needs a time out. From the game of life Whereas captive-breeding programs provide a safe place for the species to recuperate, like a zoo, a reintroduction program is the game plan to return the species to their natural habitat in the wild. In other words, "Game on!"

- **REPOPULATION** – When a species is endangered, there aren't enough members of the species to sustain the population. In the case of lemurs, 1/3 of all lemur species are "critically endangered." So, we need more of them! Breeding programs, nature reserves, and re-wilding developed land are all great examples of how we can help wildlife populations return to healthy levels.



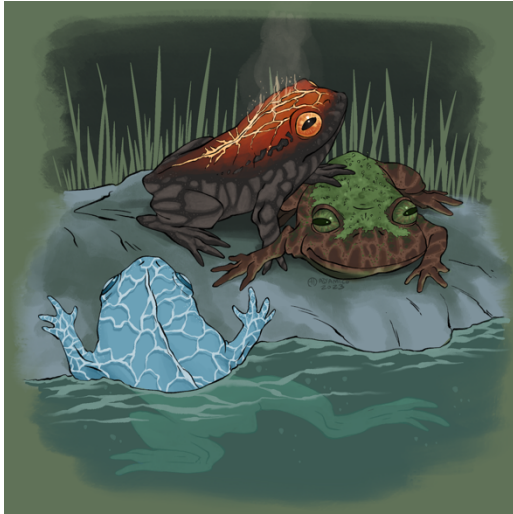
- **RISING SEA LEVELS** – Here's a weird analogy: If you put an iceberg in a hot tub, you'll create so much melted water, you'll end up with a waterfall that floods the deck.

With global warming, that's what we're doing to our oceans. As our planet heats up, polar ice caps melt, and the seas rise. Rising seas result in increased risk of flooding and damage to coastal areas.

- **SPECIES** – Generally, a species is considered to be a group of organisms that can produce fertile offspring. Here's a common example: horses and donkeys can mate, but when they do, their offspring is infertile. That means horse-donkeys, better known as "mules," can't have babies. For that reason, horses and donkeys are considered separate species. If you want to dive into the complexities of how scientists decide what's a species, [check out this PBS video](#).

- **SUBSPECIES** — Sometimes, an animal population could reproduce with another population of the same type of animal, but geographical barriers separate them, so they don't. The two

populations share enough genetic similarities to be considered the same species while being ever so slightly different. That's why they're called a "subspecies."



- **SUBPOPULATION** – This is a similar concept to subspecies. "Subpopulation" refers to a group of animals from a species that lives separately from the other populations of the same species.

Sometimes, that geographical distance leads to a differentiation in genetic characteristics, which could lead to the subpopulation becoming redefined as a subspecies. But that doesn't happen all of the time.

Sometimes, the isolated group just lives on their own.

Kind of like a relative who's moved away from home.

- **SUSTAINABILITY** – When you go camping, the idea is to "leave no trace behind." You want the forest to be no worse off as a result of your time spent enjoying the great outdoors. "Sustainability" is the same idea applied to life as a whole. Any materials we produce or use, we should replace and help grow back. "To sustain" means "to continue." We should live, so the next generation can continue the cycle and enjoy all the same resources as we have.