

# Life! Brought to you by biodiversity

## What is biodiversity?

**Biodiversity is a big word for the variety of life on Earth. Biodiversity is all around us – from the tiniest insect to a vast northern forest.**

### **Biodiversity includes:**

- **Species diversity.** Think about how many species there are in the world - more than 30,000 in Ontario alone. Species diversity is the number of different species found in a certain habitat, region, or ecosystem.
- **Genetic diversity.** Genes are the building blocks that create species. Your eye and hair colour are determined by genes. Having a high genetic diversity makes a species stronger and healthier.
- **Ecosystem diversity.** Ontario has many different ecosystems such as forests, prairies, grasslands, lakes, streams, wetlands, and tundra. Ecosystem diversity is the number of different ecosystems in a region.

### **Why is biodiversity important?**

Every species, including humans, are connected and rely on each other to survive. If one piece of biodiversity disappears, other species can be harmed. It's important to protect biodiversity so that we don't lose any of these important pieces.

- **We're all connected.** Imagine if maple trees disappeared. We'd miss the leafy shade, fall colours and maple syrup. And, we'd lose all the valuable oxygen, homes for birds and animals, and wood for buildings and furniture that maple trees provide. The look of our backyards, forests and province would change forever.

- **It's valuable.** Many medicines are made from natural sources. If we destroy biodiversity we could also be destroying life-saving medicines. Similarly, we rely on biodiversity for clean air and water, food and fibre, tourism, and to provide amazing outdoor experiences like hiking, fishing, and canoeing.
- **It needs protecting.** We have a responsibility to protect biodiversity for its own sake. The incredible variety of species in Ontario is a product of thousands of years of evolution. We need to protect biodiversity for future generations of Ontarians.

### **What threatens biodiversity?**

Humans are the main reason that biodiversity is lost. Sometimes we take too much from the environment and don't replace it. Our roads and subdivisions destroy valuable habitat. Pollution and climate change can harm ecosystems and species. Our actions can also introduce invasive species from around the world that destroy and hurt what lives here naturally.

Humans may be the cause of biodiversity loss, but we can also be the solution. There's a lot we can each do to protect biodiversity. Visit [ontario.ca/biodiversity](http://ontario.ca/biodiversity) to learn more.



### **Why don't you?**

Go into your backyard or your neighbourhood park and count how many different species you see – plants, trees, birds, animals, and insects. You'll be amazed!