

LIVING PLANET REPORT CANADA

KIDS EDITION

SPECIES AT RISK IN CANADA

WHAT IS THE LIVING PLANET REPORT CANADA?

The Living Planet Report Canada (LPRC) is a health check for the natural world. Researchers across the country monitor different species of animals, count their populations, look at changes in the habitats where they live, and figure out which wildlife are most at risk of becoming extinct — which means that they could disappear forever — and which ones are doing about the same or even better. The LPRC then makes recommendations on how to protect Canadian species from the threats they face. It's important to note that the LPRC only monitored vertebrates (animals with backbones) and this report used data from 1970–2016.

WHAT IS THE LIVING PLANET INDEX?

Experts follow tens of thousands of different populations of **mammals, birds, fish, amphibians** and **reptiles** to see how their population sizes have changed over time. The Living Planet Index can be used around the world to tell us how well wildlife are doing. In this report, we used it to see how Canadian species are doing. If we see that numbers are falling, we know that the species is facing some threats to their survival.

WHAT DOES IT TELL US?

Scientists used the Canadian Living Planet Index to follow nearly 900 species of wildlife that are native to Canada. Of these, 139 were at risk of extinction. Despite efforts to protect these species, they're still declining — populations have gone down by an average of 59% in almost 50 years. This is why we need conservation — if we can start to get those numbers back up, we can begin to reverse biodiversity loss across the country.

BIODIVERSITY: A measure of the variety of life on Earth. Biodiversity is important because animals and plants make up ecosystems, and the healthiest ecosystems have lots of variety. Biodiversity loss is when that variety starts to disappear because of threats like climate change or other human activities.

POPULATION: A population is a group of animals of the same species that lives in the same area.

FISH CASE STUDY: SHORTNOSE STURGEON



The shortnose sturgeon is a large fish that has been around for a long, long time: 100 million years, to be exact. In Canada, they are only found in the Wolastoq (Saint John River) in New Brunswick. Because they are only found in one place in this country, it's important to protect the waters where they live.

MAMMAL CASE STUDY: VANCOUVER ISLAND MARMOT



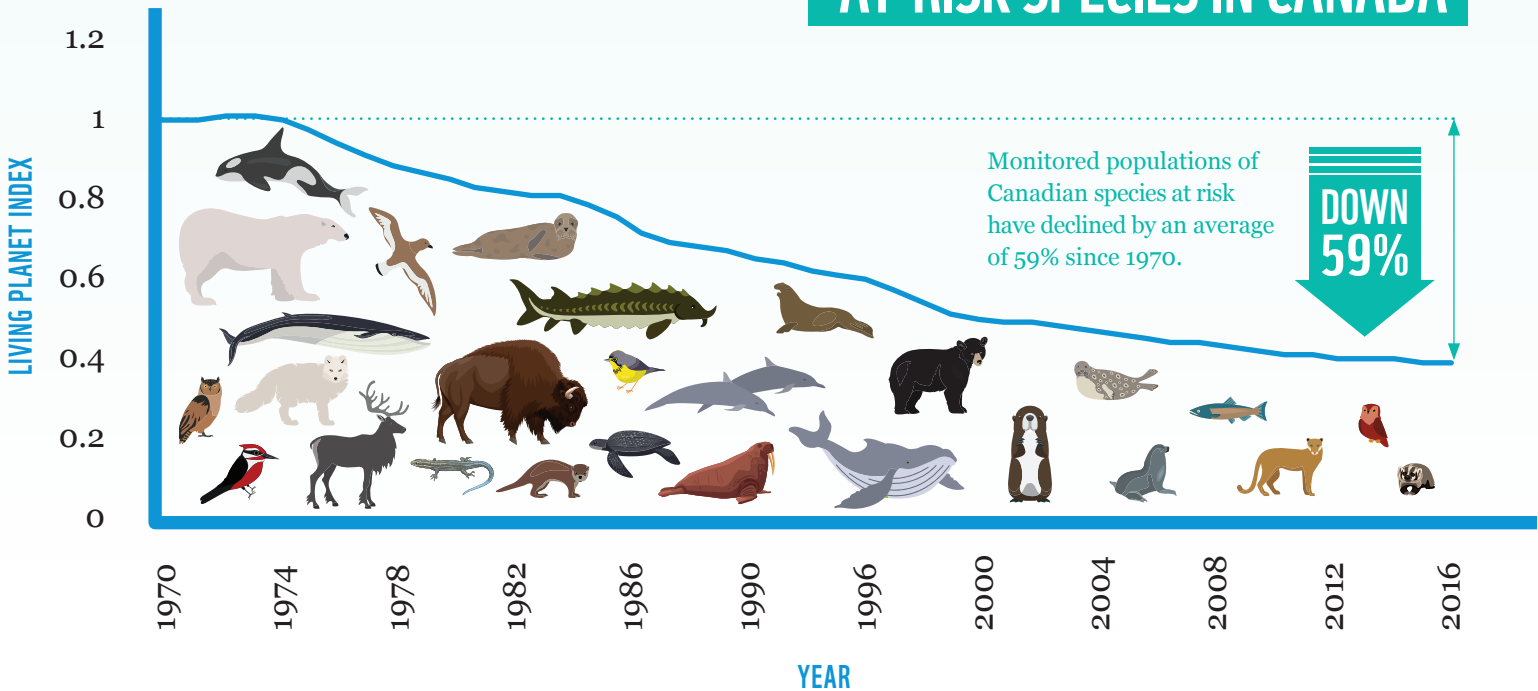
The Vancouver Island marmot — a member of the squirrel family — is bigger than the fuzzy-tailed creatures you might see in urban areas: it's about the size of a house cat, with chocolate-brown fur, and it lives in the forested areas and meadows on Vancouver Island. In the late 1970s, there were between 50 and 100 individuals left, and although protection efforts have made a difference, there are still only 200 or so in the world today.

DID YOU KNOW?

Many species live all around the world, but there are some you can only find here at home — which means they're **endemic** to Canada. The Vancouver Island marmot is an example of an endemic species because it only lives on (you guessed it!) Vancouver Island in B.C.



THE STATE OF AT-RISK SPECIES IN CANADA



Of the 139 species at risk of extinction in Canada that were included in the C-LPI, roughly 35% are birds, 32% are fish, 20% are mammals, and the remaining 13% are reptiles and amphibians. When we look at the Living Planet Index, anything above 1 is an increase, while anything below 1 is a decrease. When we looked at species at risk in Canada, on average, their populations have been going down.

REPTILE CASE STUDY: LEATHERBACK SEA TURTLE



Every year, leatherback sea turtles swim more than 10,000 kilometers north to feed on jellyfish in the Atlantic Ocean. But since they can't swim in reverse, or tuck their heads and flippers into their shells, many get tangled up in fishing nets and can't get themselves out. Keeping their habitat safe will help leatherbacks swim freely.

BIRD CASE STUDY: BURROWING OWL

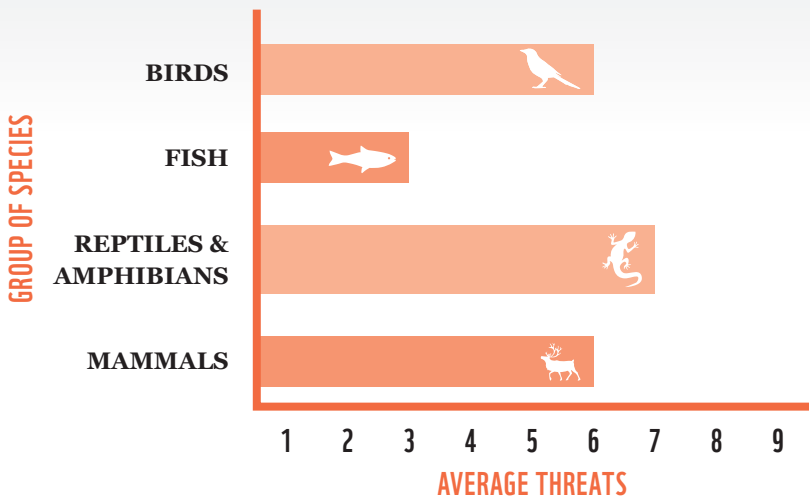


Unlike most owls that live in trees, burrowing owls live in the open grasslands and make their nests in the holes or tunnels left behind by small animals like prairie dogs and badgers. But since the 1970s, they've seen their natural habitat cut in half because of climate change and farming. Now, about 260 of these owls are left in Canada.

THREATS TO WILDLIFE

WHAT PUTS SPECIES AT RISK?

The United Nations has found that as many as one million species of plants, animals and insects are at risk of extinction around the world. In order to reverse this trend, we need to understand what causes extinction. And, well, it's us: human activities like pollution and transportation, or farming and fishing that aren't sustainable all contribute to the destruction of natural habitats. If we change our behaviour, we can allow nature to do what it does best — provide habitat for wildlife, and clean air and water for everyone.



Birds face an average of 6 threats, fish face 3, reptiles and amphibians face 7, and mammals face 6.

MAMMAL CASE STUDY: ATLANTIC WALRUS



Atlantic walrus are massive marine mammals that weigh about as much as a minivan. But despite their size, they face an average of five threats. One threat that's thought to be increasing in impact is climate change — as the seas warm and the ice melts, walrus habitats are shrinking. This also means that ships will be able to get closer to these large creatures, creating noise and pollution where they live.

DID YOU KNOW?

Whether it's fires or flood, pollution in our oceans or our air, a new road being built or more land cleared to grow food or develop housing, all 11 threats damage ecosystems and contribute to **habitat loss**. In the past 300 years, for example, 90% of wetlands around the world have been lost, leaving many species like fish, turtles and birds at risk of extinction.



WHERE SHOULD WE START?

The tricky thing is that you can't just tackle a single threat: many animals face multiple threats at once. For example, we could stop catching more fish than their populations can replace, but climate change is still making waters warmer and less habitable for fish, while big ships are polluting the ocean. It's important that our actions focus on multiple threats at once.

AT-RISK SPECIES IN CANADA FACE AN AVERAGE OF 5 (OUT OF 11) THREATS

The LPRC examined 11 threats faced by species at risk in Canada.



HUMAN DISTURBANCE
Human activities that cause habitat loss such as recreational activities or military exercises



OVEREXPLOITATION
More fishing, hunting and logging than the species can handle



TRANSPORT
Roads, flight paths and railways, plus all the vehicles that use them



CLIMATE CHANGE
Long-term changes in temperatures, rising sea levels, melting ice and extreme weather events



AGRICULTURE ACTIVITIES
Farming of land, fish and animals



INVASION & DISEASE
Species and diseases introduced from another area that cause harm to plants and animals



URBAN DEVELOPMENT
Human settlements like buildings, malls, factories and offices



POLLUTION
Harmful substances that make our water, land and air dirty



ENERGY PRODUCTION
Taking resources from the planet



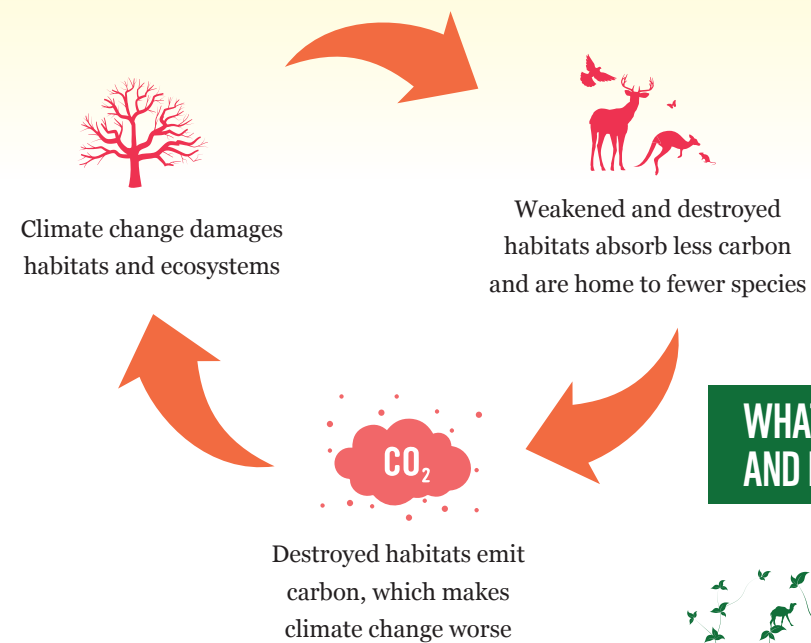
SYSTEM MODIFICATION
Changing the natural world — with dams, for example



GEOLOGICAL EVENTS
Volcanoes, earthquakes, avalanches, mudslides

CLIMATE CHANGE & BIODIVERSITY

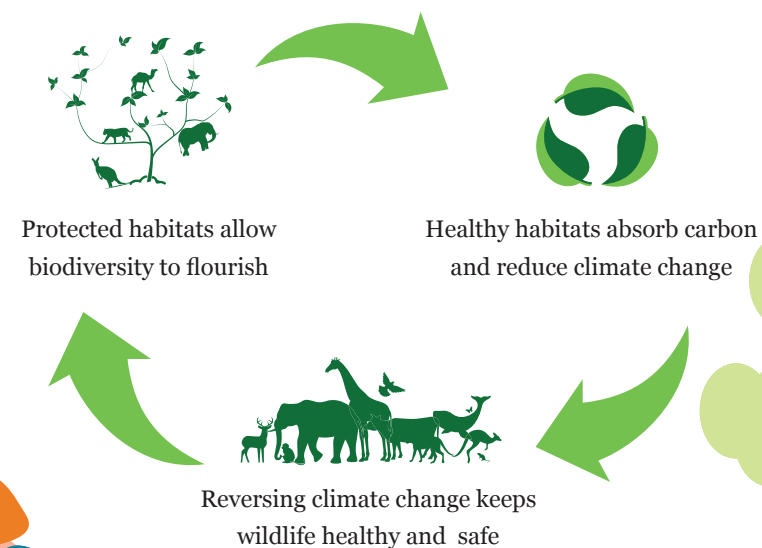
WHAT HAPPENS WHEN WE LOSE HABITAT BECAUSE OF CLIMATE CHANGE?



PROTECTING NATURE

Protecting nature means passing laws and creating plans that keep natural spaces and species safe from being damaged or destroyed. As of 2021, Canada has protected just over 13% of its lands and waters. Our goal is to protect 30% by 2030.

WHAT HAPPENS WHEN WE PROTECT AND RESTORE HABITAT?



WHAT ARE NATURE-BASED CLIMATE SOLUTIONS?

Nature can be a really powerful ally in the fight against biodiversity loss and climate change. When we protect the nature we have and restore the nature we've lost, we not only support biodiversity and help species thrive, we also slow down the pace of climate change and keep people and wildlife safer from its harmful effects.

Nature-based climate solutions can take all kinds of forms. Restoring coral reefs helps defend cities along coastlines from high waves and serious floods, which occur more frequently with climate change. Preserving forests takes carbon out of the air and keeps existing carbon in the ground. Planting new trees in neighbourhoods improves air quality and keeps communities cool while helping to absorb even *more* carbon. And protecting habitats ensures that wildlife always have a place to call home.

BIRD CASE STUDY: WHOOPING CRANE



Whooping cranes have snow-white feathers everywhere except on the tips of their wings, which are jet-black, and they can grow to almost five feet tall. In the past, there were as many as 10,000 of them, but hunting and habitat loss meant that in the 1900s, there were just 14 whooping cranes left in the entire world. That's why, 100 years ago, a gigantic national park in the Northwest Territories and Alberta was created, so that whooping cranes would have a protected place to nest and breed. It was a success, and today, 500 of these birds can now be found in North America.

DID YOU KNOW?

For thousands of years, Indigenous Peoples have relied on cultural practices and knowledge systems that keep lands and waters healthy and safe. Indigenous Protected and Conserved Areas (or IPCAs) are landscapes and seascapes where Indigenous governments take the lead in protecting ecosystems. IPCAs make a big difference in the fight against biodiversity loss: here at home, Indigenous-managed lands support more endangered wildlife and have greater biodiversity than other protected areas. That's why it's important that any plans to protect and restore nature in Canada make sure to include Indigenous knowledge, traditions, support and leadership.

13%

As of December 2021, Canada has protected more than 13.5% of its terrestrial and freshwater ecosystems, and more than 13.9% of its oceans.

RESTORING NATURE

Around the world, human activity has resulted in changes to over three quarters of our ecosystems. Restoring nature means repairing the damage we've done to those ecosystems and even expanding habitats so there are more opportunities to reduce excess atmospheric carbon, reverse biodiversity loss and fight climate change.

WHAT'S NEXT?

There's no denying it: temperatures are rising and wildlife populations are falling. But nature is not a lost cause, and there's still time for countries and people to come together to stop climate change and reverse wildlife loss. The world has big plans to reduce greenhouse gas emissions and protect and restore biodiversity and habitats.

HERE ARE SOME IDEAS TO GET YOU INSPIRED.



WHAT IS THE WORLD DOING?



At a 2021 climate conference in Glasgow, Scotland, 30 countries agreed to cut global carbon emissions by 45% by the year 2030, so the planet doesn't warm by more than 1.5°C.



In December 2022, the 196 countries that make up the UN Convention on Biological Diversity will meet in Montreal, Canada, to work out how to stop biodiversity loss by 2030 and recover what has already been lost by 2050.

WHAT IS CANADA DOING?



Temperatures in Canada are rising at twice the rate as the world's average, so the Canadian government agreed to reduce emissions by 2030 to 40–45% of where they were in 2005. Canada has also committed to net-zero emissions by 2050, meaning there will either be no new emissions or emissions will be offset.



Canada is protecting species and their habitats by investing money into dozens of national wildlife parks as well as Indigenous Protected and Conserved Areas. The goal is to protect 30% of Canada's lands and waters by the year 2030.

WHAT CAN YOU DO?



Read up on and learn more about Canadian wildlife, from the walruses that live in the Atlantic Ocean to the birds that hang out in your neighbourhood.



When you're out in nature, stick to the trails and leave everything where you found it. Let nature be nature!



Plant a native garden in your yard or on your balcony. Plants that are native to where you live make a great home for all sorts of birds, butterflies and bugs.



Go on a climate strike. Join youth around the world who have marched across their cities to demand action on climate change.



Write a letter to your local politician telling them how you feel about climate change and what you hope they'll do to protect nature.

Living Planet Report Canada Kids Edition is adapted from the 2020 Living Planet Report Canada. Read more at [wwf.ca/lprc2020](https://www.wwf.ca/lprc2020).



A Canada with abundant
wildlife, where nature and
people thrive.

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