

Become a Biodiversity Hero- From the Comfort of Home and On the Road

by

Julie Jin

August 27 2024

Table of contents

Introduction	3
1. Paying attention to prevent roadkill	3
2. Shelters for animals	3
3. Promoting gardens that avoid pesticides and insecticides	4
Conclusion	4
Bibliography	6

Introduction

Wildlife and biodiversity are one of earth's liveliest creations, which is declining alarmingly in Canada. Biodiversity is described as the combination of life, from land to sea animals and predators to prey. However, many are facing consequences such as extinction. Canadian species of risk at the national level have disappeared on average by 59%. The government has invested in nature based solutions. Despite wildlife slowly disappearing, many chose to ignore it, thinking protecting biodiversity is a hard mission when simple solutions actually exist. This essay introduces three solutions anyone can do to reverse the loss of biodiversity. It will discuss the link between loss of wildlife and roadkill, shelters for animals, and promoting gardens that avoid pesticides and insecticides.

1. Paying attention to prevent roadkill

To start, paying attention on the road reduces species from becoming roadkill through avoidable situations. In fact, in Alberta, Canada, cases of animals being killed by vehicles in 2024 have skyrocketed by 73% : around 7000 animals! According to the database, in 2023, four hundred snake carcasses were reported. In 2021, there were just two. Four thousand two hundred fifty deer were also killed in the last three years. (Farrell, J. 2024). In the United States, an endangered cat species, the ocelot, has reduced to around eighty in number, with partial results of roadkills. Mammals (bears, birds, reptiles, amphibians) and slow moving animals are at high risk of roadkill. (U.S Department of Transportation. 2000). This confirms how many drivers do not think about risking animal life while on the road, especially when driving near one, causing endangered species to die from preventable mistakes. To easily avoid roadkill, simply pay attention. While noticing signs signalling that animals may be near or crossing the road, take it as a precaution and slow your vehicle down. While driving at night, drive slowly, being aware of your surroundings. Honking at an animal such as a deer who is about to cross a highway is important if you are unable to stop in time. The loud noise would potentially scare it off, dodging your vehicle. Roadkill has skyrocketed in the past years, including endangered wildlife, despite being preventable, so make sure to always be aware that you are sharing your path with other wildlife.

2. Shelters for animals

Furthermore, providing shelters for animals helps those who suffered from habitat loss and are at risk of death. Endangered species are threatened to extinction with habitat loss the cause 85% of the time. (WWF. n.d). A factor of habitat loss is deforestation. The government of Canada states: "In Canada, deforestation is mainly caused by cropland expansion or conversion to settlement land uses, such as mining, and oil and gas development. Deforestation depletes biodiversity and wildlife habitat, and degrades air, water and soil quality." (Government of Canada. 2024). Extinction may cause a danger cycle. If a pollinating animal became extinct, not only would it affect food chains, but also ecology. Bad ecology also causes habitat loss for insects. (Pure Breaks. n.d). This demonstrates how hard it is for living organisms to survive without a habitat, even when it is caused by humans. Although solving deforestation is a complicated project, we can help those affected by replicating their natural habitats and providing food and water allowing them to thrive and reproduce. For example: a bug hotel. By filling a drilled log with dry leaves, sticks or straw, many insects will be attracted and feel at home. To save endangered birds, make birdhouses by gathering wood scraps, measuring and assembling 4 walls and a roof, and in the front wall, drilling a hole. Inside, add wood chips or bird food and mount your birdhouse. Wait for birds to settle in. Many human actions create habitat loss, creating a cycle of extinction for animals and it's important to help those suffering.

3. Promoting gardens that avoid pesticides and insecticides

Finally, by planting a pesticide and insecticide free garden, we are saving many species from possible risks. Pesticides are used to eliminate pests, but can harm innocent animals. When pesticides are sprayed, small droplets travel far from the site to other sensitive/ready to harvest crops, decreasing their health, and to insects or mammals, poisoning them. (Ministry of Agriculture, British Columbia. 2017). To add, The Pesticide Action Network of Europe mentions how some animals can no longer eat crops without the risk of getting poisoned from pesticides, therefore increasing chances of starvation. This causes a void in the food chain putting upper predatory wildlife at risk as well. (Pesticide Action Network. n.d). This proves that by promoting pesticide/insecticide-free gardens, insects, birds and mammals are at

smaller risk of poisoning, while the garden serves as a habitat for small microorganisms, boosting biodiversity! To plant a chemical-free garden, buy seeds of local plants and start a garden in an area with sunlight. To reduce the need of pesticides, add compost (fruit peels, egg shells). Remove weeds and decomposing plants that attract pests. Attract helpful insects such as ladybugs, who remove aphids (insects who sucks on plant's sap) with their favourite flowers. Make sure to do research and tell others about it! Pesticides and insecticides can easily reach crops or poison animals and damage food chains, so a chemical free garden is a necessity to change the future of biodiversity.

Conclusion

In conclusion, protecting nature and stopping the loss of biodiversity is viewed as hard or impossible, when it is in fact simple. Small actions can possibly save species from extinction. Promoting and planting pesticide and insecticide free gardens, creating shelters for animals suffering from habitat loss and paying more attention while driving for wildlife are simple, easy things that stop endangering animals/biodiversity as a whole. Next, would it be possible for communities to come together and protest against brands overexploiting nature for money?

Bibliography

Farrell, J. (2024, August 21). Alberta's roadkill numbers soar with more than 7,000 animals reported hit and killed last year. CBC
<https://www.cbc.ca/news/canada/edmonton/alberta-s-roadkill-numbers-soar-with-more-than-7-000-animals-reported-hit-and-killed-last-year-1.7300404#:~:text=The%20program's%20database%20says%20in,per%20cent%20increase%20from%202019.>

U.S Department of Transportation. (2000, March/April). Linking Habitats and Reducing Roadkill. U.S Department of Transportation
<https://highways.dot.gov/public-roads/marchapril-2000/linking-habitats-and-reducing-roadkill#:~:text=Habitat%20Fragmentation,-Few%20species%20use&text=Highways%20%22fragment%22%20landscapes%20and%20divide,to%20inbreeding%20and%20genetic%20defects.>

WWF. (n.d). Losing their homes because of the growing needs of humans. WWF
https://wwf.panda.org/discover/our_focus/wildlife_practice/problems/habitat_loss_degradation/#:~:text=Around%20half%20of%20the%20world's,year%20is%20a%20drastic%20loss.

Government of Canada. (2024, May 30). Land-use change. Government of Canada
[Land-use change - Canada.ca](https://land-use-change-canada.ca)

Pure Breaks. (n.d). Species Extinction: The Destructive Environmental Impact. Pure Breaks
<https://purebreaks.com/species-extinction-destructive-environmental-impact/#destinations>

Ministry of Agriculture, British Columbia. (2017, April). Environmental Protection and Pesticides. Ministry of Agriculture, British Columbia
<https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/plant-health/environmental-protection-and-pesticides.pdf>

Pesticide Action Network Europe. (n.d). Pesticides and the loss of biodiversity. Pesticide Action Network Europe
<https://www.pan-europe.info/issues/pesticides-and-loss-biodiversity#:~:text=Pesticide%20use%20has%20a%20harmful,habitats%20and%20the%20food%20chain.>