

How creating wildlife crossings can help reindeer, bears – and even crabs

Level: Advanced

1 Warmer

Match the geographical areas or places with the countries in which they are located.

- | | |
|-------------------------------------|--------------|
| 1. the Yucatán Peninsula | a. Canada |
| 2. the Santa Monica Mountains | b. Sweden |
| 3. the Banff National Park, Alberta | c. Mexico |
| 4. the South Downs National Park | d. Australia |
| 5. Christmas Island | e. the USA |
| 6. Umeå | f. the UK |

2 Key words

Fill the gaps in the sentences using these key words from the text.

advocate alleviate controversial fractious fractured
lichen habitat inbreeding indigenous kickstart
roadkill second nature shuffle spook viaduct

- The _____ population of a particular area lived there for a long time before other people came to live there.
- If people or animals _____, they move slowly and noisily without lifting their feet.
- A/An _____ situation is one that causes problems and is difficult to control.
- If things _____ people or animals, they make them suddenly feel frightened or nervous.
- _____ is a small, soft plant that grows on surfaces such as trees or walls.
- A/An _____ is a long bridge on high posts, usually across a valley.
- If you _____ something, you make it less painful, severe or serious.
- If something is _____, the connection between different parts is broken.
- A/An _____ is the type of place that an animal usually lives in.
- _____ is a situation when animals produce babies with members of their own family.
- _____ is an animal that has been killed by a vehicle and is lying in the road.
- _____ is an action or set of actions that you perform automatically and without thinking. (two words)
- If people _____ something, they publicly support a particular policy or way of doing things.
- If something is _____, people disagree about it.
- If you _____ something, you make it improve or become more active after it has stopped or slowed down.

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Sweden's announcement that it is to build a series of animal bridges is the latest in global efforts to help wildlife navigate busy roads

Patrick Greenfield

23 January, 2021

- 1 Every April, Sweden's main motorway comes to a standstill. Hundreds of reindeer overseen by indigenous Sami herders shuffle across the asphalt on the E4 as they begin their journey west to the mountains after a winter feeding on lichen near the city of Umeå. As Sweden's main arterial road has become busier, the crossings have become increasingly fractious, especially if authorities do not arrive in time to close the road. Sometimes drivers try to overtake the reindeer as they cross – spooking the animals and causing long traffic jams.
- 2 "During difficult climate conditions, these lichen lands are extra important for the reindeer," says Per Sandström of the Swedish University of Agricultural Sciences. Recently, Swedish authorities announced they would build up to a dozen "renoducts" (reindeer viaducts) to aid the crossings and allow reindeer herds to reach grazing more easily.
- 3 It is hoped the crossings will allow herders to find fresh grazing lands and alleviate traffic jams, and also help moose and lynx to move around the landscape. The country's 4,500 Sami herders and 250,000 reindeer have been hit hard by the climate crisis, battling forest fires in the summer and freezing rain in the winter.
- 4 The renoducts are part of a growing number of wildlife bridges and underpasses around the world that aim to connect fractured habitats. On the Yucatán Peninsula in Mexico, underpasses have been used to protect jaguars from traffic. Natural bridges in the Peruvian Amazon have helped porcupines, monkeys and other animals pass over natural gas pipelines. On Christmas Island, bridges have been built over roads to allow millions of red crabs to pass from the forest to the beaches on their annual migration.
- 5 In southern California, there have been signs of inbreeding among lions in the Santa Monica Mountains because busy freeways around Los Angeles have isolated populations with low genetic diversity. To help save the mountain lion population from local extinction, an \$87m wildlife bridge is planned over the 101 highway north of LA, which would be the largest in the world.
- 6 "When habitat is isolated, we can have an impact on individual animals where they might not be able to find water or food. We can also have an impact on the genetic diversity of populations," says Mark Benson, a member of the human-wildlife coexistence team for Lake Louise, Yoho and Kootenay at Parks Canada.
- 7 The agency has overseen one of the most successful uses of wildlife bridges in the world in Banff National Park, Alberta, installing seven overpasses and 41 underpasses on the section bisected by the Trans-Canada Highway. A 2014 study found that fencing off the road and installing wildlife passes had maintained high genetic diversity in black and grizzly bear populations. Benson credits the passes with a big fall in roadkill along the highway, also significantly reducing human mortality from animal collision.
- 8 "We can go all the way back to 1983. There was an underpass that was put in place as part of twinning improvements [widening the highway] in the park. The first overpasses were put in place in 1996 and the twinning of the highway was completed in 2016," he says. "It's very effective in terms of allowing wildlife to move across the landscape."
- 9 In the UK, wildlife bridges are likely to form part of the government's nature-recovery network, which aims to link together biodiverse areas under a 25-year environment plan. Highways England is increasingly building wildlife bridges as part of schemes around the country, with more planned for future infrastructure work. But some conservationists warn not enough is being done in the UK. "We're a long way behind the rest of the world. In Europe, it's become second nature in some areas," says Martin de Retuerto, director of conservation at Hampshire & Isle of Wight Wildlife Trust.
- 10 The trust is advocating the creation of a green bridge across the M3 at Twyford Down, one of the most controversial road schemes in English history, built in the 90s. The motorway fractured the link between the South Downs National Park and St Catherine's Hill, an iron-age fort and nature reserve home to rare butterflies and wildflowers.

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- 11 Major protests against the scheme might have failed to stop construction but De Retuerto says they marked a shift in attitudes to environmental issues in the UK. For that reason alone, he says, a green bridge at Twyford Down should be made to kickstart the nature recovery network. "It's been heralded as the best bad example of how to do a road scheme. It's symbolic and deserves to be the one where, politically, prioritization is centred," he said. "If the Romanians can build them for bison, then we can build them for butterflies."

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3 Comprehension check

Answer the questions using information from the article in your notebooks.

1. What sometimes frightens the reindeer as they cross the E4 motorway in Sweden?
2. What is a 'renoduct'?
3. Which weather conditions have had a bad effect on the reindeer and their herders?
4. Why have bridges been built across roads on Christmas Island?
5. What problem can low genetic diversity cause?
6. How has high genetic diversity been maintained in the Baff National Park in Alberta, Canada?
7. Why was the M3 motorway in England controversial?
8. What did the protests against the M3 scheme achieve?

4 Using key language

Match the verbs in the left-hand column with the nouns or noun phrases in the right-hand column.

- | | |
|--------------|---------------------------|
| 1. cause | a. genetic diversity |
| 2. have | b. a recovery |
| 3. maintain | c. second nature |
| 4. reduce | d. a traffic jam |
| 5. become | e. an impact on something |
| 6. kickstart | f. mortality |

5 Discussion

Discuss these statements.

- "Wildlife bridges are a waste of time and money."
- "Without wildlife, our lives would be much poorer."
- "We need to stop building roads and invest in railway networks."

6 In your own words

The text refers to wildlife initiatives in Sweden, the USA and Canada, amongst others. Research further examples online of the use of wildlife crossings, either in your country or in another country. Write a short paragraph (up to 150 words) to describe the projects and types of animals they are designed to protect.