

NEWS BREAK

Article: **Warming will cause species turnover in cities**

Section: **MAIN, A14**

Sunday's News Break selects an article from **Sunday, March 31, 2024** of The Seattle Times print replica for an in-depth reading of the news. Read the selected article and answer the attached study questions.

You are encouraged to modify this lesson to fit the needs of your students. For example, some teachers might use this as a take-home assignment and others might read and answer the questions in a small group or larger, class discussion.

****Please be sure to preview all NIE content before using it in your classroom to ensure it is appropriate for your students.***

Standards:

CCSS.ELA-Literacy.RI.4.1

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-Literacy.RI.4.2

- Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Objectives:

Students will take a deep dive into climate change and how it will impact specific animal species and their habitats. They will talk about what a citizen scientist is and whether this data is a reliable source, or not. Students will talk about how our local communities and cities can create urban green spaces dedicated to these changes. They will talk about how this shift will impact other wildlife in other types of ecosystems (e.g., forests, deserts, oceans).

Pre-Reading Discussion:



- What do you think the article will be about, using this picture?
- Are there any clues? What can you infer?

Vocabulary Building:

Read this sentence, what do you think the highlighted words mean using *context clues*? A **context clue** is a word or words that are hints and refers to the sources of information outside of words that readers may use to predict the identities and meanings of unknown words.

"So too will the seemingly **ubiquitous** earthworm, though only one species of earthworm showed up in the data."

Ubiquitous Guess:

Ubiquitous Definition:

Comprehension Questions:

1. According to the article, what is one way climate change is affecting wildlife in cities?
2. The researchers used data from a source called the Global Biodiversity Information Facility. What type of data does this facility provide?
3. The article mentions three warming scenarios the researchers looked at. What was the temperature increase predicted in the most moderate scenario?

4. Based on the study, what is a general trend expected for vertebrate populations in cities as the climate warms?
5. Can you name one specific vertebrate species mentioned in the article that might become less common in cities?
6. The article states that the prevalence of some species, like scorpions, is expected to increase. How does this contradict the overall trend observed for vertebrates?
7. Why does the author say that ecologists are not surprised by the findings of this study?
8. According to the passage, what is the minimum number of new species expected to arrive in the studied cities under the lowest warming scenario?
9. Toronto is predicted to experience a significant change in the number of species it has. How many species could the city potentially lose by 2100?
10. The article mentions two other cities besides Toronto. Can you name them? What is similar about how these cities are expected to be affected by climate change?

Discussion Questions (small/large groups), Journal Prompts or Essay Questions:

Discussion Questions:

- What surprised (or stood out to) you in the article?
- At first, I thought _____, but now I think _____?
- What things did you already know from prior experience?
- The article mentions some animals that might become less common in cities and some that might become more prevalent. Discuss the reasons why some species might be better suited to handle rising temperatures in urban environments than others.
- The study relied on data from citizen science apps. How can everyday people contribute to scientific research? Do you think citizen science is a reliable source of data? Why or why not?
- How can cities be designed to be more hospitable to wildlife, even in the face of a changing climate? What are some examples of existing initiatives that create urban green spaces?
- The study presents different scenarios for future warming. If cities are expected to see an influx of new species, what challenges might this pose for existing ecosystems and human-wildlife interactions?
- Climate change is a global phenomenon, but its effects are felt locally. How can the findings of this study be relevant to your own community?

Are there any signs of wildlife changes you've observed in your local area?

- How will climate change affect wildlife in other types of ecosystems (e.g., forests, deserts, oceans)?

Diving Deeper-Journal Prompts/Essay Questions:

- Imagine you could travel back in time and see the wildlife present in your city 100 years ago. How might the findings of this study inform your perception of what constitutes a "natural" urban ecosystem? Discuss the concept of a shifting baseline and how our ideas about "normal" wildlife populations might need to adapt in a changing climate.
- The study focuses on North American cities. However, climate change is a global phenomenon. How might the concept of "urban refuges" need to be adapted for different parts of the world with varying climates, resources, and existing human-wildlife interactions? Discuss the challenges and opportunities for creating urban wildlife havens on a global scale.

Extension Activity:

- Research a specific animal species mentioned in the article (e.g., loons, coyotes, scorpions). Create a map or presentation charting the historical and predicted future range of this species due to climate change.

News Break is posted to the Web on Tuesday. Please share this NIE News Break program with other teachers. To sign-up for the print replica for your class, please [register online](#) or call 206/652-6290 or toll-free 1-888/775-2655.
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