



WILD CLASSROOM

Conservation in the Classroom

Earth's Report Card: The Status of Our Planet's Biodiversity

March 29, 2023

1:00 pm EST / 10:00 am PST

Recommended grade levels: 6–10

Watch live on [Conservation in the Classroom](#)

View recording on the [Wild Classroom YouTube channel](#)



Dr. Rebecca Shaw

Chief Scientist

Every two years, WWF publishes *The Living Planet Report*—a thorough summary of the health of the natural world. In this talk, WWF's Chief Scientist, Dr. Rebecca Shaw, will explain the state of biodiversity around the planet and discuss what this means for climate change, the environment, and human health. She'll also share what is contributing to biodiversity declines and what we can do to protect biodiversity for the future.

BELL RINGER WARM-UP QUESTIONS

Help prepare your learners by introducing the topic with these warm-up questions.

Define and Consider

Define **biodiversity** (hint: break the word down!)

Based on this definition, which type of ecosystem (desert, rainforest, ocean, grassland, freshwater, polar, etc.) do you think has the greatest amount of biodiversity? Which ecosystem do you think is currently most at risk of losing its biodiversity?

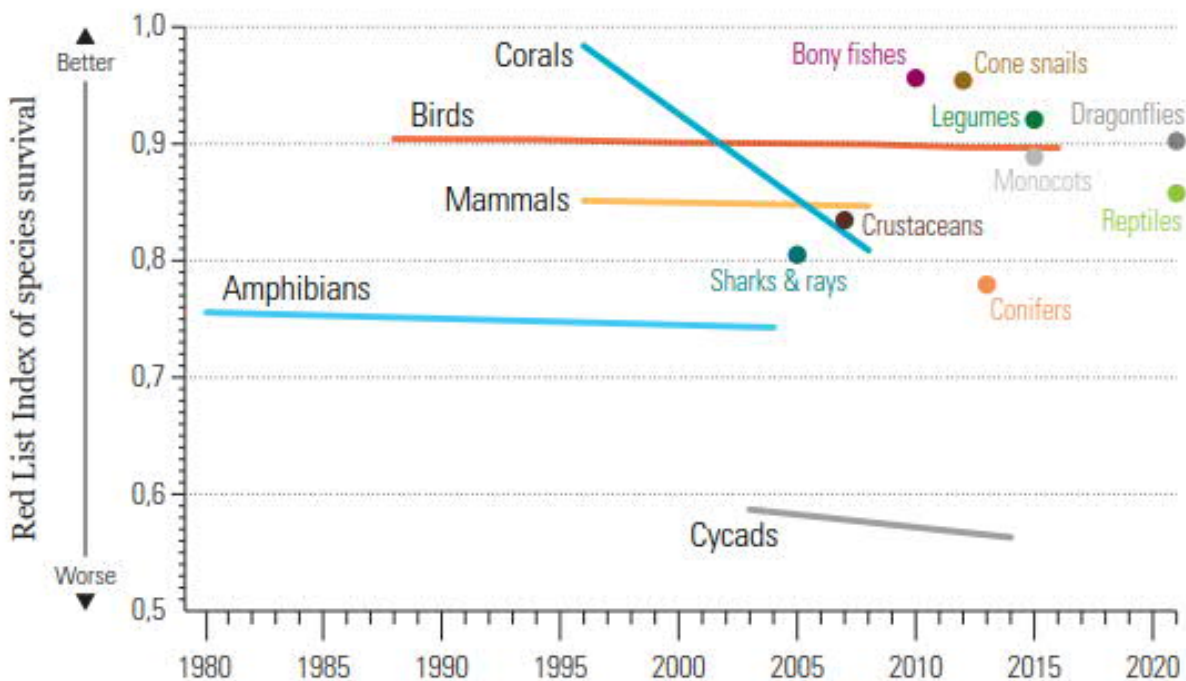
Interpret

When evaluating the state of Earth's biodiversity, scientists collect data over time on more than 140,000 species such as their population counts, distribution size and structure, and their extinction status, also known as their Red List category (vulnerable, endangered, etc.).

The graph below from *The Living Planet Report 2022* shows survival trends for five groups of species that have been assessed. The Red List Index (y-axis) shows the species' relative survival probability based on changes in their Red List category over time.

Based on this graph,

- Which of the five species groups has shown the most decline over time? _____
- Which species are closest to extinction? _____



INFORMATIONAL RESOURCES

Use these resources to provide background information to your learners.

- Web page: [Living Planet Report 2022: Youth Edition](#)
- Web page/video: [Living Planet Report 2022](#)
- Web page: [What is Biodiversity?](#)
- Web story: [3 ways the US is taking action to protect biodiversity](#)
- Web story: [Recognizing Indigenous Peoples' land interests is critical for people and nature](#)
- Web story: [World strikes agreement to stop biodiversity loss](#)
- Video: [What is Biodiversity?](#)



ACTIVITIES

Check out these lesson plans to supplement the content from the event.



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[Living Planet Report 2020: Youth Edition Education Pack](#)

Activities such as “Climate Change and Biodiversity” and “Measuring Biodiversity: Tech Tactics” will teach learners about the methods used by researchers when calculating biodiversity loss and evaluating species health.

Grades 6-12

[Teaching Tools About Biodiversity](#)

Use the lessons in the biodiversity toolkit to help students understand how all living things are connected. Explore activities in science, language arts, STEM, and art.

Grades 6-8



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[Be a Food Waste Warrior](#)

Food loss and waste is a huge factor contributing to biodiversity loss. Use the materials in the Food Waste Warrior toolkit to teach students more about the planetary impact of what we eat and what we throw away.

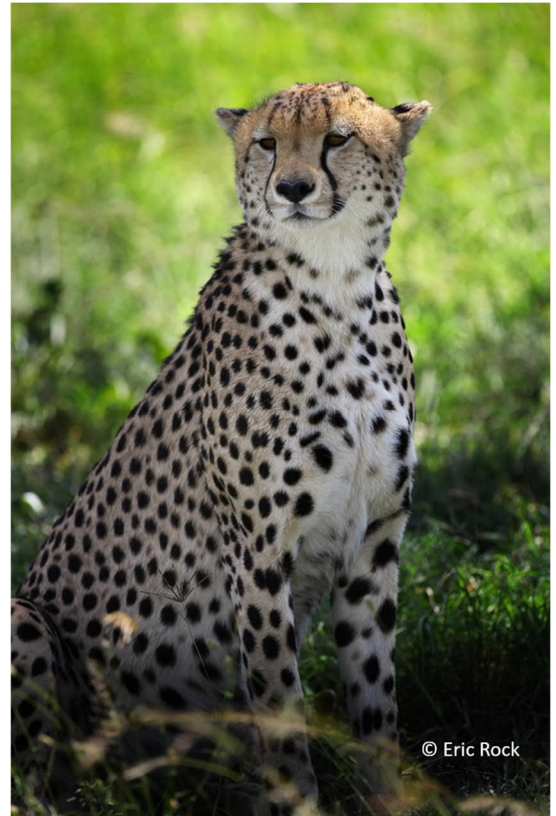
Grades: K-12

ASSESSMENTS

Conclude your lesson with these resources and fun assessment tools.

Kahoot!

- [Biodiversity course](#)
 - How Has Our Planet Changed? The Living Planet Report 2022
 - What is biodiversity?
 - Animal Roles Trivia
 - Test Your Biodiversity IQ
 - Threats to Biodiversity
 - How can I protect biodiversity?
- [Climate Change course](#)
 - Climate change 101
 - How climate change affects wildlife
 - Adapting to changing climate



Answer key for Quick Quiz (next page)

- 1) Human activities, such as deforestation, large-scale farming, pollution, construction of buildings and transportation networks, and overuse of food and water have all contributed to biodiversity loss.
- 2) Biodiversity is a key indicator of a healthy ecosystem. When an ecosystem has a prominent level of biodiversity, it can cope better and adapt to change or environmental threats. Even if some organisms are affected by the change, a biodiversity-rich ecosystem is more likely to adapt and survive.
- 3) Biodiversity supports everything in nature we need to survive including food, raw materials, freshwater, and medicine. Nature provides services and regulates processes we depend on such as air quality, weather, and disease. The health of our environment is directly connected to our own health.
- 4) Biodiversity and climate crises are both tied to the unsustainable use of our planet's resources and need to be addressed together. As climate change worsens, species are losing their habitats, which can result in a loss in biodiversity. Biodiversity loss can also impact climate change because animals help maintain their habitats, which in turn helps regulate our climate.
- 5) Possible answers include: making informed choices about what you do, buy, and eat that are good for nature; voicing your concerns to your community; doing your part to take care of your local environment; and considering green career pathways.



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Answer the following prompts after watching the Conservation in the Classroom event.

Short-answer questions

1) Over the past 50 years, biodiversity has declined by 69%. Name three causes contributing to this decline.

- a. _____
- b. _____
- c. _____



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2) Why is an ecosystem with high levels of biodiversity considered stronger/healthier?

3) How is biodiversity connected to human health?



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4) *The Living Planet Report* states that climate change and biodiversity loss are “two sides of the same coin.” Explain this statement.

5) Name three things that you can do regularly to help protect biodiversity.

- a. _____
- b. _____
- c. _____



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BONUS QUESTION: Imagine you are tasked with proposing a solution to reduce the impacts of human activities on biodiversity. Describe your idea, how you would implement it, and why you feel it could be successful.
