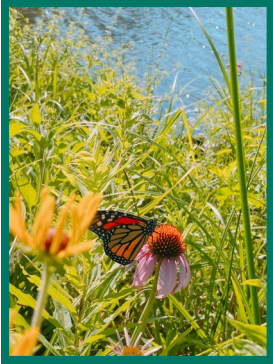


The Scoop on Gorilla Poop



An **ecosystem** is a community of living and non-living things that all interact with each other. For example, in a forest ecosystem, trees, soil, water, insects, birds, and mammals all interact with one another. They depend on each other to survive. Trees grow in soil and absorb water. Insects find shelter in the bark of the trees. Small mammals, like mice, eat those insects and seeds from trees. Birds, like owls, hunt mice for food and build nests in trees. Animal droppings and dead plants **decompose**, or break down, to feed the soil and start the whole process over again! Ecosystems can be as small as a puddle or as big as the whole planet.

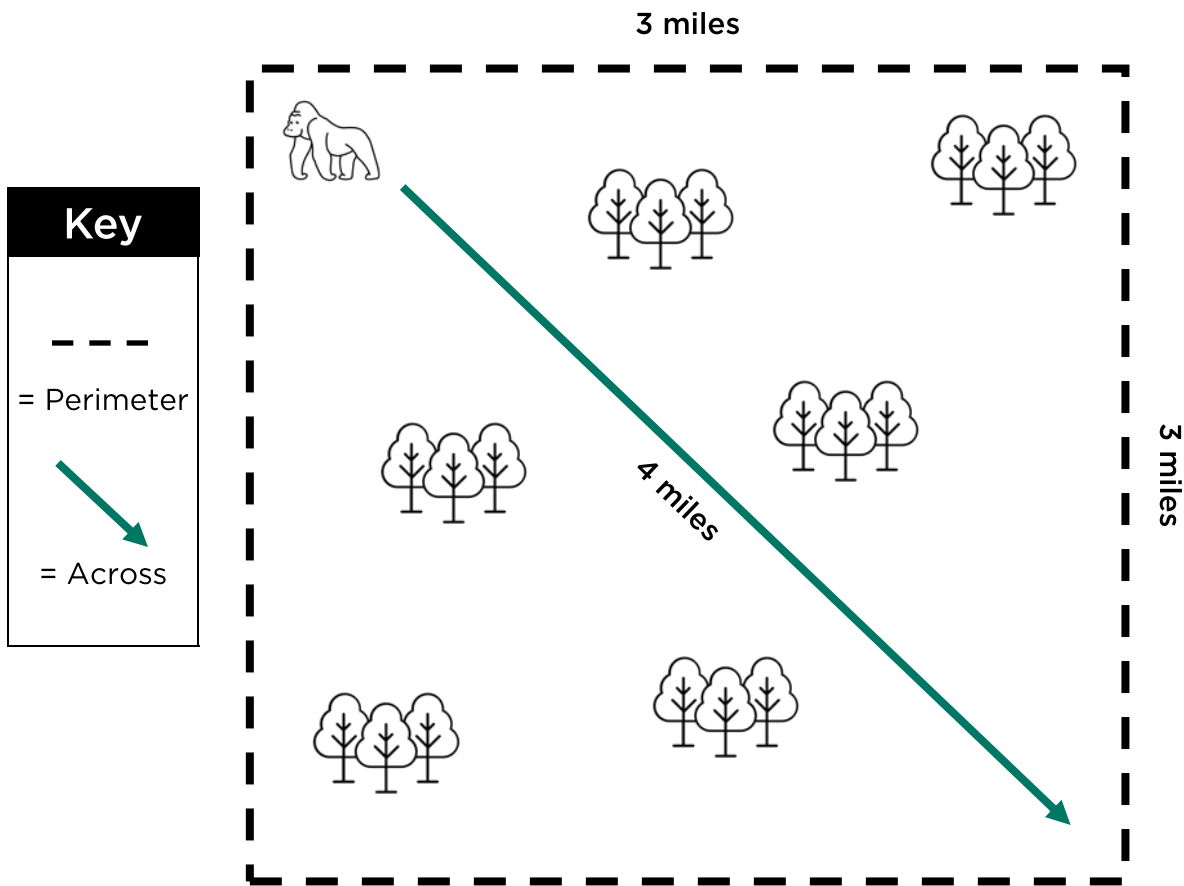


Western lowland gorillas play an important role in the tropical rainforest ecosystem where they live. One of the most important things they do is spread seeds throughout the rainforest so that new plants can grow. Gorillas eat lots of fruit. Adult male gorillas may eat as much as 45 pounds of food per day! As they move through the rainforest, the fruit seeds get spread when the gorillas poop. Gorillas poop several times per day. As they move through the rainforest, they spread the seeds in areas with plenty of light and space for the seeds to grow. By moving the seeds, the gorillas help the forest thrive.

The Scoop on Gorilla Poop

Each gorilla troop lives in a large home area. The troop travels about one mile each day gathering food and eats from about 100 different types of trees. This makes for a lot of gorilla poop!

Directions: Imagine you are a gorilla and you live in the home range pictured below. For the next few days, you will walk along the **perimeter**, or edge, of your home range. Answer the questions on the next page to learn how your poop helps the forest grow!



The Scoop on Gorilla Poop

Questions

- 1.) If you walk 1 mile per day, how many days will it take for you to walk along the top edge of your home range? _____ days

 - 2.) If you poop every half mile, how many times will you poop along the top edge of your home range? _____ times

 - 3.) If you continue walking one mile per day, how many total days will it take you to walk the whole perimeter of your home range? _____ days

 - 4.) If you continue pooping every half mile, how many total times will you poop along the whole perimeter of your home range? _____ times

 - 5.) It is about 4 miles across your home range. If you poop every half mile, how many times will you poop as you travel across your home range? _____ times

 - 6.) How many total times have you pooped when walking along the perimeter and across the middle of your home range? _____ times
-

Western lowland gorillas are in danger of going extinct. Human activities, such as cutting down forests and mining are destroying gorillas' habitats.

➔ **Challenge Question:** What do you think would happen to the tropical rainforest ecosystems if gorillas went extinct? _____

The Scoop on Gorilla Poop



Work Space

The Scoop on Gorilla Poop

Answer Key

- 1.) If you walk 1 mile per day, how many days will it take for you to walk along the top edge of your home range? **3** days (1 mile per day; 3 miles total)

 - 2.) If you poop every half mile, how many times will you poop along the top edge of your home range? **6** times (3 miles = 6 half miles)

 - 3.) If you continue walking one mile per day, how many total days will it take you to walk the whole perimeter of your home range? **12** days (each edge is 3 miles; 4 edges x 3 miles = 12 miles)

 - 4.) If you continue pooping every half mile, how many total times will you poop along the whole perimeter of your home range? **24** times (12 miles = 24 half miles)

 - 5.) It is about 4 miles across your home range. If you poop every half mile, how many times will you poop as you travel across your home range? **8** times (4 miles = 8 half miles)

 - 6.) How many total times have you pooped when walking along the perimeter and across the middle of your home range? **32** times (24 + 8 = 32; answers from #4 & #5)
- ➔ **Challenge Question:** What do you think would happen to the tropical rainforest ecosystems if gorillas went extinct? **Answers may vary: Tropical rainforests will see less new plant growth.**