



Surveying Gorongosa's Biodiversity

OVERVIEW

This worksheet complements the short video "[Surveying Gorongosa's Biodiversity](#)" from the *Scientists at Work* series.

PROCEDURE

1. Prior to watching the film, read the questions below that accompany the video.
2. Watch the film.
3. If working with a partner or in a small group, discuss and answer the following questions. If working alone, think about and answer the questions.

QUESTIONS

1. This film is about a biodiversity survey of the Gorongosa National Park in Mozambique. Define biodiversity:
2. The researchers in the film spent a month collecting and identifying various species of animals and plants. These species were then added to a database of all species in Gorongosa. Provide two (2) reasons why building a species database will be useful for the restoration project.
3. The Cheringoma Plateau is the location of one of the biodiversity surveys overseen by Dr. Naskrecki.
 - a. Why do they need to do similar surveys at other locations?
 - b. Why can't they assume that the Plateau is representative of the entire park?
4. Technology has changed the way scientists perform their research. List and describe three (3) ways technology help make possible the biodiversity survey depicted in the film.
5. An **indicator species** is a species whose presence, absence, or relative abundance is a reflection of an environmental condition. Changes in the abundance of an indicator species may signal changes in the "health" of the ecosystem.

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- a. Bats are one group of indicator species mentioned in the film. Develop a claim about what the bats reveal about the relative health of the Cheringoma Plateau region of Gorongosa National Park. Support your claim with at least one piece of evidence from the film.

Claim:

Evidence:

- b. Macroinvertebrates—invertebrates that you can see without magnification—are indicator species often surveyed when assessing aquatic ecosystems. The following data table and graph represent macroinvertebrates sampled in two different streams, Stream A and Stream B. Using the data, develop a claim about the overall and relative water quality of the streams and support your claim with at least two pieces of evidence for each stream.

Claim:

Evidence:

Macroinvertebrate Species Name	Pollution Tolerance	Total biomass in sample (g)	
		Stream A	Stream B
Mayfly nymph	Intolerant	4	0
Caddis fly larva	Moderately intolerant	30	0
Freshwater shrimp	Moderately intolerant	70	1
Water louse	Moderately tolerant	34	4
Bloodworm	Moderately tolerant	10	45
Sludge worm	Tolerant	2	100



