



Curriculum Units by Fellows of the National Initiative

2020 Volume V: Caretakers versus Exploiters: Impacting Biodiversity in the Age of Humans

Saving Little Brown Bats: A Case Study of White-Nose Syndrome for Primary Grades

Guide for Curriculum Unit 20.05.09, published September 2020

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Bats play an important role in a variety of ecosystems throughout the world through insect control and plant pollination. Events that kill large portions of populations, including natural or human induced disasters, increasingly threaten biodiversity. Invasive species are a major trigger of these declines, including invasive pathogens, against which native species can experience high mortality due to a lack of evolutionary defenses. Introduced fungal pathogens can be particularly dangerous as they can frequently survive in the environment for extended periods, affect a relatively broad range of hosts, and can be highly virulent, thereby driving mass-mortalities of native species of plants and animals.

This unit is focused on the common little brown bat. Over the past 20 years, the little brown bat population in North America has been decimated by White Nose Syndrome (WNS), a fungal disease that interrupts hibernation and has eradicated some bat colonies completely. The unit is designed for primary grades and aligned to first grade Next Generation Science Standards and Practices. The five hour long lessons include an overview of bat biodiversity, the role of bats in world ecosystems, reasons why some bat species are threatened, how humans can take on a caretaker role in bat conservation, and ends with a project that has students designing and constructing a bat roosting box to promote local bat activity.

(Developed for STEM, grade 1; recommended for STEM and Science, grades 1-5)

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