



## Lesson 3: Bat Conservation

### Theme

Biologists collect annual data on bats in order to learn more about their populations and health. Data collection over time is an important part of wildlife conservation.

### Learning Objectives

In this lesson, students will learn about the threats bats face and how we can all do our part to help bats.

### Corresponding Activities for this Lesson

- Bat Blitz
- Bat Mural
- There's a Fungus Among Us

### Materials

- Lesson 3 PowerPoint

### Lesson

**1. Review with students the benefits of bats to humans and the ecosystem. Ask students what they think would happen if bat populations were to decrease. Write students' answers on the board.**

**2. Show students pictures of bats with White-Nose Syndrome, and explain that this disease has become the leading threat to bats across the United States.**

- Define White-Nose Syndrome.
- Explain how this disease affects bats.
- Explain the origins of the disease and how quickly it has spread.
- You can see an interactive time lapse of the spread of White Nose Syndrome across the country at [www.whitenosesyndrome.org](http://www.whitenosesyndrome.org).
- Explain that this disease does not directly affect humans, but could indirectly affect us. Circle back to students' ideas of what could happen if bats began to disappear.

- Explain that this disease has made its way to Rhode Island, discovered when our state biologists conducted sampling in the few known places where bats hibernate in the state.
- *Detailed information about White Nose Syndrome can be found in the notes section of the PowerPoint.*

### 3. Ask students what they think everyone can do to help bats.

- **Create healthy habitat** – Plant a bat-friendly garden with lots of different plants. This will attract insects, and provide natural food for the bats.
- **Don't use pesticides** – Chemical pesticides are often used to kill certain insect pests, but can end up unintentionally killing other insects too. This can impact bats because killing off insects greatly reduces their food source. Also, if an insect is sprayed, but does not die immediately, it could be eaten by a bat. The bat will have ingested the chemical pesticides via the insect. The poison can make its way up the food chain, eventually harming bats and other wildlife. This is a common occurrence with birds of prey eating rats that have consumed rat poison before becoming a hungry bird's lunch.
- **Provide shelter** – Building a bat house can help give bats a place to rest. Bats are very site faithful, meaning they return to the same roosts and hibernacula each year. They may not find your bat house right away, but it's always good to offer them the option!
- **Share what you know about bats with your friends and family!** – The more people know about bats, the better. Bats are often misunderstood, and need your help to spread the word that bats are super cool!