

Science Time

Program Content for September 30, 2015

Read the article “Study: Warming, evolution are clipping bees’ tongues” on page A8 of the Friday, September 25, 2015 edition of The Seattle Times.

Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.

1. evolution
2. climate
3. migration
4. ecosystem
5. species

Comprehension Questions

1. What two events are reshaping the bodies of some American bumblebees?
2. How much shorter are the tongues of two species of bumblebees today than they were 40 years ago?
3. How has climate change caused shorter tongues in bumblebees?
4. What is one disadvantage to having a long tongue?
5. What is unique about the bee study highlighted in this article in comparison to other studies conducted on bees?
6. How did the size of the population of bumblebees studied change over time?
7. Why can climate change and not other factors like pesticides and pathogens be blamed for the golden belted bumblebee population decline?
8. By how much had the temperature of the area studied changed over 40 years?
9. Why is Candance Galen worried about some flowers in the area of study?

Prompts and Extensions

1. **Identify** the following parts of the bumblebee experiment. What was the dependent variable, the control group, the experimental group, and constants?
2. **Watch** this video about bumblebee research that took place in a similar study as the one in the article you just read to see how today’s bumblebees can be compared to those that lived in the past for evidence of changes over time.
3. **Learn and take action:** Bee populations are declining around the world. Find out why and what you can do to help save and protect bee colonies and other pollinators [here](#) and [here](#).
4. **Do:** Want to raise and take care of bees for yourself? Get started with these [tips and resources](#).

Science Time is posted to the Web on Wednesdays. Please share this NIE Science Time program with other teachers. To sign-up for the electronic edition for your class, please register

Copyright © 2015 The Seattle Times Company