

# CASE TEACHING NOTES for **THE ROCKY MOUNTAIN LOCUST** Extinction and the American Experience

by

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## INTRODUCTION / BACKGROUND

This is a fascinating tale of the American experience during the 1870s, textured by stories of immigration, homesteading, and a battle of humankind with nature to occupy the land and overcome the forces of nature. We don't know what the history of this species was or the impact it had on the Great Plains prior to settlement. The basic assumption is that the Rocky Mountain Locust had an irruptive population cycle and expressed some level of destruction, much like fires. We hypothesize this based on what we see grasshoppers and locusts doing today. The end of this story leaves us with a transformed Great Plains, occupied by swarms of homesteaders and an extinct species.

I have used this case with my freshman non-majors environmental science students. Components of it could be used in other courses such as ecology, general biology, public policy, history, and political science. Depending on the direction the individual instructor may wish to take, all or select problem sets may be used.

## CLASSROOM MANAGEMENT

- Read case: either before class or 10-15 minutes in class.
- Discussion questions: There is way too much here for one day, and the questions address very different issues. My recommendation is to take one section at a time, per class period. Each question should take about 10 minutes for group discussion, and then 10-15 minutes for class discussion. Some of the questions may require prior reading to really dive into the subject, such as either of the following:
  - Lockwood, J. A. and L. D. DeBrey. 1990. A Solution for the Sudden and Unexplained Extinction of the Rocky Mountain Grasshopper (Orthoptera: Acrididae). *Environmental Entomology* 19:1194-1205
  - Lockwood, J. A. 2001. Voices from the Past: What we can learn from the Rocky Mountain Locust. *American Entomologist* 47: 208-215.
- Break class up into groups of 3-5 individuals; depending on the size of the class, you may have multiple groups addressing the same question. This has been effective in the classroom for generating discussion.

## ANSWER KEY

Answers to the questions posed in the case study are provided in a separate answer key to the case. Those answers are password-protected. To access the answers for this case, go to [the key](#). You will be prompted for a username and password. If you have not yet registered with us, you can see whether you are eligible for an account by reviewing our [password policy and then apply online](#) or write to [answerkey@sciencecases.org](mailto:answerkey@sciencecases.org).

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### Supplemental Reference Material

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