



Taking Action

Grade Level: Middle and High School

Concept/Strand: The ability to incite change comes not only from desire but also from knowledge. Working with others can have a greater impact than working alone.

Subjects: Science, English Language Arts, Social Studies, American History, Contemporary World Issues, American Government

Objectives:

Students will be able to:

- Understand what it means to “take action”,
- Discuss how Dr. Braun protected natural areas,
- Realize the importance of knowledge when working for change,
- Become acquainted with conservation organizations,
- Determine an appropriate method of taking action.

Teacher’s Notes:

- **Preservation and conservation** have always existed on a continuum with extreme examples on both ends. The extent of the access and use of each area is determined largely by the entity or individual who owns the natural area and current societal pressures. For additional information, refer to the web links in the reference section.
- **Citizen Science** is research done by adults and students in collaboration with professional scientists and/or organizations. Some of the longest running and best known are bird studies such as the Audubon Christmas Bird Count. See the reference section for more information.

Background: Throughout the film, viewers are exposed to many different ways that Dr. Braun and others were able to incite change by taking action. Through E. Lucy’s careful and detailed research and publications she was able to inform others. By working with like-minded individuals within formalized organizations the ability to cause change was amplified. She was able to inspire and motivate both professionals and non-professionals to take action.

Discussion Questions:

1. The title of this lesson is “Taking Action”. What does this phrase mean to you?
2. What actions did Dr. Braun take to protect natural areas?
3. How is educating others a way of taking action?
 - a. What methods did E. Lucy use to educate others?
 - b. Due to advances in technology, what methods are used today?
4. For most of Dr. Braun’s career, she not only taught at the University of Cincinnati full time, but continued her field research, took on preservation projects and contributed to a number of conservation organizations and publications. Discuss the many roles E. Lucy embraced during her lifetime.

Research Topics:

1. Investigate different types of natural resource careers and/or careers in the sciences.
2. Examine the history/development of **conservation** organizations that were mentioned in the film.
 - Ecological Society of America
 - The Nature Conservancy
 - American Association of Foresters
 - Ohio Academy of Sciences
 - Cincinnati Wildflower Preservation Society
 - National Park Service
 - Save Kentucky’s Primeval Forest League



3. Research one or more of the following conservation organizations operating on an international or national scale to determine their mission, goals, and educational efforts.

International

- World Wildlife Fund
- Conservation International
- African Wildlife Foundation
- Durrell Wildlife Conservation Trust
- Ocean Conservancy
- Green Peace

National

- Sierra Club
- Xerces Society
- Earth Watch
- National Resources Defense Council

Student Projects:

1. Start an on-line forum with classmates on a current environmental issue.
2. Write a letter to your local newspaper editor, state or federal representative or senator about a current environmental issue.
3. Volunteer with a local conservation group.
4. Participate in a **citizen science** project.
5. Start a club at your school devoted to nature conservation/education.
6. Shadow a professional person in a natural resources career or a scientific field.

Resources:

Books:

E. Lucy Braun (1889-1971): Ohio's Foremost Woman Botanist, Her Studies of Prairies and Their Phytogeographical Relationships Compiled by Ronald L. Stuckey

Life Connections, Pioneers in Ecology by Linda Leuzzi (for upper elementary and middle school)

Web Links:

Ecological Society of America <https://www.esa.org/esa/>

American Forestry Association – now known as American Forests www.americanforests.org

Ohio Academy of Science <http://www.ohiosci.org/>

Cincinnati Wildflower Preservation Society <http://cincywildflower.org/>

National Park Service www.nps.gov

Kentucky Old Growth <http://www.kentuckyoldgrowth.org/index.html>

Overview of citizen science and links to current projects <https://scistarter.com/educators>

Project Feeder Watch <https://feederwatch.org/>

Great Backyard Bird Count <http://gbbc.birdcount.org/>

Dr. Rob Dunn, Professor of Applied Ecology, North Carolina State University www.robduunnlab.com

