

THE BIODIVERSITY COLLECT

A Review of Biodiversity Resources for Educators

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Welcome To “The Biodiversity Collection”

If you want to incorporate biodiversity education into your teaching, “The Biodiversity Collection” might be just what you need. A compendium of exemplary environmental education resources that focus on biodiversity, this guide is designed to help educators find outstanding materials that can enhance biodiversity teaching in a variety of settings.

Although we know this guide doesn't include all the great resources that are out there, it does highlight 47 of the best curriculum materials we could find, along with other resources that can help enhance environmental education. The guide also includes a listing of helpful web sites and other suggestions for where to look for more information about biodiversity.

We'd like to give special thanks to the more than 100 teachers, curriculum developers, scientists, evaluation specialists, environmental educators, business and industry representatives, and other experts who helped review the curriculum materials included in this guide. We also want to thank Bora Simmons, Professor of Curriculum and Instruction at Northern Illinois University and Director of the National Project for Excellence in Environmental Education; Ed McCrea, Executive Director of the North American Association for Environmental Education; and Kathleen Pickering, former Director of Conservation Education at the National Fish and Wildlife Foundation for their support and leadership on this project. In addition, we'd like to thank Nancy Baron for her initial insights into how we might pull this together, and Randy Champeau, Director of the Wisconsin Center for Environmental Education at the University of Wisconsin, Stevens Point, for his vision and support in getting this project off the ground.

If you have any suggestions for future editions, please complete the feedback forms at the end and let us know what you think.

Good luck with your education programs!

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Introducing *The Biodiversity Collection—Resources for Educators*

T

he Biodiversity Collection is designed to help educators find outstanding curricula, multimedia resources, and other educational materials that can enhance

biodiversity teaching in a variety of settings. We hope these resources will help teachers, naturalists, zoo and aquarium educators, museum educators, university professors, community educators, and others plan, develop, and implement creative and effective lesson plans and programs that address biodiversity issues.

The Biodiversity Collection is part of a series of environmental education resource guides designed to help educators find exemplary teaching materials. Other guides include *The Environmental Education Collection, Volume I*, which is a compendium of general environmental education resources on a variety of topics, and *The Environmental Education Collection, Volume II*, which will include additional environmental education resources.

Why Biodiversity?

Biodiversity is the variety of life on Earth. It's everything from the tiniest microbes to the tallest trees, from creatures that spend their entire lives deep in the ocean to those that are anchored firmly in the soil of the Earth's crust. It's also the word used to describe the wealth of habitats that house all life forms and the interconnections that tie us together. All of Earth's ecosystems and all life forms that have evolved within them—including the fantastic range and expression of human culture—are part of our planet's biodiversity.

Biodiversity is the perfect cross-cutting theme to help provide real-world contexts and issues that promote critical and creative thinking, citizenship skills, and responsible action. Biodiversity also illustrates the complexity of environmental issues and the fact that there are many perspectives, as well as much uncertainty. We believe that biodiversity is an important and powerful issue that draws learners in and promotes thinking across disciplines.

The resources reviewed in this guide provide dozens of ideas for developing lesson plans,

units, and courses that focus on biodiversity. These are some of the best resources available today for developing exemplary environmental education programs.

The Environmental Education Process

Biodiversity is an important part of any environmental education program because all environmental issues affect biodiversity. The goal of environmental education is to develop an environmentally literate citizenry that has the knowledge, skills, commitment, and motivation to take responsible action on behalf of the environment. Through comprehensive, cohesive programs, learners explore how feelings, experiences, attitudes, and perceptions influence environmental issues. They also become knowledgeable about natural and human processes and systems and how humans influence and are influenced by natural systems. Environmental education also provides

opportunities for learners to analyze environmental problems and issues using a variety of techniques, use basic science and math skills, and explore the nature of bias. Learners also develop a sense of their rights and responsibilities as citizens, and they gain the skills and insights needed to become effective citizens in a democratic republic.

Environmental education cuts across disciplines, political spectrums, philosophies, ethics, and cultures. It is a process that is learner centered and provides students with opportunities to construct their own understanding through hands-on experiences and by engaging in discussions and interactions. Environmental education is simply good education. It helps learners view the environment within the context of human influences, including economic, cultural, political, and social issues. It also encourages learners to explore and understand their local surroundings by moving out into larger systems, broader issues, and a more sophisticated comprehension of causes, connections, and consequences.

"Biodiversity represents the very foundation of human existence. Yet we are eroding this biological capital at an alarming rate . . . The more we learn of the workings of the natural world, the clearer it becomes that there is a limit to the disruption that the environment can endure.

Besides the profound ethical and aesthetic implications, it is clear that the loss of biodiversity has serious economic and social costs. The genes, species, ecosystems, and human knowledge that are being lost represent a living library of options available for adapting to local and global change. Biodiversity is part of our daily lives and livelihood and constitutes the resources upon which families, communities, nations, and future generations depend."

*Global Biodiversity Assessment:
Summary for Policy Makers,
United Nations Environment Programme,
1995*

Picking the Best—What Was the Process?

Our goal in developing this collection was to include a broad range of exemplary educational materials (e.g., curriculum guides, videos, CD-ROMs, posters) that focus on biodiversity. The first step involved trying to find as much of the “good stuff” as possible. We sent letters to commercial publishers, not-for-profit organizations, government agencies, and other organizations that produce educational materials asking them to submit materials for the review. We reviewed more than 200 resources representing a wide range of biodiversity education materials. The curriculum materials included in this guide were reviewed and evaluated by teams comprising classroom teachers, content experts, and environmental educators. Each set of materials was reviewed by at least three people. In those cases where reviewers disagreed, the materials were evaluated by other experts. The materials listed in this compendium received the highest ratings of those reviewed.

Although every effort was made to gather as many materials as possible, it was impossible to find every biodiversity education resource in the country. Therefore, we do not claim that the materials listed in this compendium are the best of all that exist. We do, however, believe this is an excellent representation of curriculum materials that address a broad range of biodiversity issues and topics; that are geared to a variety of learners (re: age, setting, group size, etc.); and that have many exemplary characteristics, especially their approach to environmental education. It is our hope that this compendium will serve as a guide and assist you as you make decisions and choose materials that are most appropriate for your situation.

There are two major parts to this collection. The first part highlights 47 of the best supplementary curricula we found that focus on some aspect of biodiversity. The second part includes an annotated bibliography that features general background information, children’s books and magazines, multimedia resources, web sites, and a variety of other resources focused on biodiversity issues. Although these materials were also reviewed, the review was not as extensive and the goal was to include a variety of high-quality supplementary materials that would enhance a biodiversity unit or program.

