Growing Up Green

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Source: BioScience, 58(9) : 884-886

Published By: American Institute of Biological Sciences

URL: https://doi.org/10.1641/B580918

GROWING UP GREEN

A Clean Sky: The Global Warming Story. Robyn C. Friend and Judith Love Cohen. Cascade Pass, Marina del Rey, CA, 2007. 48 pp., illus. $13.95 (ISBN 9781880599822 cloth).

The Down-to-Earth Guide to Global Warming. Laurie David and Cambria Gordon. Scholastic, New York, 2007. 128 pp., illus. $15.99 (ISBN 9780439024945 paper).

The Forever Forest: Kids Save a Tropical Treasure. Kristin Joy Pratt-Serafini and Rachel Crandell. Dawn Publications, Nevada City, CA, 2008. 32 pp., illus. $16.95 (ISBN 9781584691013 cloth).

How We Know What We Know about Our Changing Climate: Scientists and Kids Explore Global Warming. Lynne Cherry and Gary Braasch. Dawn Publications, Nevada City, CA, 2008. 66 pp., illus. $17.95 (ISBN 9781584691037 cloth).

One Well: The Story of Water on Earth. Rochelle Strauss. Kids Can Press, Tonawanda, NY, 2007. 32 pp., illus. $17.95 (ISBN 9781553379546 cloth).

The Sky's Not Falling! Why It's OK to Chill about Global Warming. Holly Fretwell. World Ahead Publishing, Los Angeles, 2007. 128 pp., illus. $10.99 (ISBN 9780976726944 paper).

Tracking Trash: Flotsam, Jetsam, and the Science of Ocean Motion. Loree Griffin Burns. Houghton Mifflin, Boston, 2007. 64 pp., illus. $18.00 (ISBN 9780618581313 cloth).

Environmental conservation and global warming are two of the hottest topics in science today, and among the hottest resources for children are the following new titles, which target various age groups but have a common goal of developing environmental consciousness in our kids. These books range from providing a basic understanding of environmental issues to showcasing a specific aspect of our environment that needs focused consideration. The books are meant to stir awareness by using the full gamut of motivational techniques, from soft cliché to hard statistic. Their goal is to fuel motivation, some by suggesting tried and true conservation practices, and others by leaning more heavily on scientific evidence and the evaluation of it. And with one exception, they serve as seeds for planting the idea of growing up "green."

If we want our future citizens to make well-informed decisions about issues related to the environment, then we need to ensure that scientifically accurate, nonbiased sources of information are available to them.

Water conservation

The idea of water as a valuable resource and the related issues of water access, pollution, and depletion are thoughtfully discussed in *One Well: The Story of Water on Earth* (ages 9 to 14). Author Rochelle Strauss, an environmental education consultant based in Toronto, focuses the reader on the importance of water conservation by using the analogy of one global well. Renowned artist Rosemary Woods illustrates in rich detail the concept of water as the strand of life that connects everything on Earth. The book is filled with facts and percentages, but the statistics are paired with easy-to-understand descriptions of tangible objects that readers can wrap their heads around. Toward the end of the book are notes to parents and teachers; this is a well-written section that provides helpful ideas, not strident ultimatums, for water conservation. Once children learn about the multiple roles of water in sustaining life, they will be more inclined to view this resource as worthy of protection. Furthermore, once they are imbued with a global sense of community, they may be more inclined to view themselves as having their own responsible roles.

Ocean pollution

The ultimate reservoir of Earth's water is the ocean, and ocean pollution is the cornerstone of *Tracking Trash: Flotsam, Jetsam, and the Science of Ocean Motion* (ages 10 to 14). The collaborative efforts of three scientists to "track trash" through their understanding of wave dynamics, ecological interactions, and biodegradation make the book part data analysis and part detective story. Readers gain insight into climate patterns and the variability of ocean currents, which can lead to better pollution prevention techniques and easier cleanup efforts.

First-time author Loree Griffin Burns also discusses an important aspect of ocean pollution: plastics. Her description of the ubiquitous contamination of ocean water with plastic materials, and the resulting threat to marine life, constitutes a valuable lesson in responsible management of trash. Through the use of scientific supporting evidence, the book further illustrates how damaging the use of plastics can be to the environment. Burns traces the effects of polluted ocean waters and shows how these ultimately lead to changes in our climate and to serious consequences for marine biodiversity. The glossary is helpful since several technical terms are used, and a list of other books and Web resources is also included at the end of the book.

Rainforests and species protection

The concept of conservation is often demonstrated through efforts that begin locally, but children may also be inspired to participate in conservation efforts by reading about an exotic place in Costa Rica called the Children's Eternal Rainforest. This 54,000-acre reserve is the backdrop to the story of *The Forever Forest: Kids Save a Tropical Treasure* (ages 5 to 11). Well known children's author Kristin Joy Pratt-Serafini collaborated with author and rainforest conservationist Rachel Crandell to highlight the significance of the rainforest ecosystem and to send an effective message that the determined actions of children all over the world can be relevant to even large-scale preservation projects. The story is well crafted, full of information, and beautifully enhanced by illustrations. Readers learn that the rainforest provides the habitat for numerous species that face extinction as their food webs are disrupted and forest area is reduced by logging and other intrusive human activities. Species protection through reforestation is paramount, and by explaining the importance of these unique tropical forest dwellers in their habitat, the authors are promoting environmental awareness at a young age, which Pratt-Serafini states is "the key to preserving our world."

Large-scale conservation efforts, such as protecting an ecosystem as wide as the ocean or as complex as the rainforest, are under way throughout the world. Educational outreach programs for children are excellent ways to emphasize the important work that volunteers do and to develop children's commitment to protect natural habitats.

Global warming

Growing environmental concern has recently spiked as a result of our gradual understanding and acknowledgment of global warming. The term itself has become part of the lexicon in both scientific and political arenas. Major socioeconomic decisions affecting not just the United States but the world have already been made, and will increasingly be made, on the basis of judgments about global warming. The topic is rife with controversy. Nonetheless, an introduction to global warming for children can take a direct and scientific approach. *A Clean Sky: The Global Warming Story* (ages 9 to 12) does just that. It is an appealing 48-page primer on global warming that young readers will enjoy. The book provides an objective understanding of a complex issue without adopting political overtones. Robyn C. Friend and Judith Love Cohen (an aerospace engineer) are accomplished writers of children's books on a variety of empowering subjects. Their approach to global warming is to discuss it from a can-do perspective: first explain the nature of the problem— how does global warming take place over time?—and then offer some possible solutions to fix it. For example, the term "greenhouse gases" is adequately defined along with the need to curb emissions, then terminology such as "carbon capture" and "geological storage" is introduced as alternative methods for reducing greenhouse gases. The result is a book that is both rational and engaging—optimism served objectively.

Although the issues of global warming and conservation may always be subject to interpretation and political bias, these topics in children's literature should be presented as objectively as any piece of scientific information.

Documented evidence of climate change

Another approach to understanding global warming is to learn about the work being done by an international selection of scientists. Evidence-based knowledge of global climate change is the focus of the book *How We Know What We Know about Our Changing Climate: Scientists and Kids Explore Global Warming* (ages 10 to 14). Studies by more than 40 biologists, as well as student researchers, are documented in this collection of evidence that climate change is real, and that plants and animals are reacting to it. Through clear descriptions of actual scientific studies, a young reader absorbs clues that are symptoms of global warming—rainforest deforestation, rising sea levels, and changing carbon dioxide levels, to name a few. Lynne Cherry, an accomplished writer of environmental books, and photojournalist Gary Braasch teamed up to write this book, which not only presents a convincing argument, although its advocacy is subtle, but also illustrates the collaborative spirit of scientific research that is required to further our understanding of the long-ranging effects of global warming.

Science, after all, is about asking questions, exploring problems, and searching for adequate answers that cannot always be found in a classroom or textbook. This book encourages scientific curiosity and takes a multidisciplinary approach to learning about our environment. Additional resources are plentiful. Instead of waving the banner of environmental consciousness, *How We Know* demonstrates ways to take active roles in the community to solve a problem that affects all of us.

Activism

In comparison, *The Down-to-Earth Guide to Global Warming* (ages 9 to 12) highlights the importance of environmental awareness and describes ways for young readers to become engaged in conservation efforts. The premise is that peer-reviewed studies have already identified solutions to global warming; therefore, the task at hand is to become an environmental activist to learn how to combat this very serious problem. The book can be somewhat misleading in its use of quotes from celebrity role models. Although it is important to provide our children with incentives for becoming concerned about environmental issues, this book is less a guide than it is a call-to-action. Coauthors Laurie David and Cambria Gordon are environmental activists (and David is also the producer of *An Inconvenient Truth,* among other documentaries). Parents may well want their children to become similarly engaged in environmental activism, but this book blurs the distinction between becoming better informed and becoming an advocate.

Media bias

While most scientists and environmental activists argue that global warming is taking place at an accelerating pace, a few others claim that the warming trend observed over the past decades is part of a cycle between cooling and warming periods. From this perspective, another issue emerges: media bias. *The Sky's Not Falling! Why It's OK to Chill about Global Warming* (ages 9 to 14) is offered as an alternative "to the overwhelming number of liberal kids' books on the market," according to the press release from the publisher. Holly Fretwell, a faculty member at Montana State University, centered her book around the thesis that media concern with climate change is exaggerated. Fretwell states that "without greenhouse gases the earth would be a very cold place to live." This is true but seems misleading, given that the concern arises because concentrations of such gases are rapidly increasing. Her arguments are not very convincing when she claims that warmer temperatures could mean "better food growth per acre." No references are cited with this claim. Fretwell also considers biofuels to be an unrealistic option as energy alternatives. They may be too costly to taxpayers since "ethanol is not as efficient at producing energy as fossil fuels" and "the costs to society may be greater than the benefits." Fretwell's "solution" is economic growth (perhaps at the expense of more fossil fuels), and she encourages us not to fall under the restrictions of the Kyoto Protocol. Clearly, the child is not the target audience at this point.

Lessons for learning

Environmental issues will continue to hold center stage in our scientific, socioeconomic, and political milieu. If we want our future citizens to make well-informed decisions about issues related to the environment, then we need to ensure that scientifically accurate, nonbiased sources of information are available to them. Although the issues of global warming and conservation may always be subject to interpretation and political bias, these topics in children's literature should be presented as objectively as any piece of scientific information. Given the vulnerability of young readers as consumers of information (scientific and otherwise), children's books about environmental awareness should promote a clear understanding of these issues, thereby offering our next generation the opportunity not only to learn about science but also to apply scientific information to real-life problems.

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doi:10.1641/B580918
Include this information when citing this material.