Plants and Invaders

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Biology Books for Young People

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PLANTS AND INVADERS

Alien Invaders: Species that Threaten Our World. Jane Drake and Ann Love. Tundra Books, Plattsburgh, NY, 2008. 56 pp., illus. $19.95 (ISBN 9780887767982 cloth).

Aliens from Earth: When Animals and Plants Invade Other Ecosystems. Mary Batten. Peachtree, Atlanta, 2008. 32 pp., illus. $15.95 (ISBN 9781561452361 cloth).

Amazing Plants. Honor Head. Gareth Stevens, Strongsville, OH, 2007. 32 pp., illus. $24.00 (ISBN 9780836888973 cloth).

The Charcoal Forest: How Fire Helps Animals and Plants. Beth A. Peluso. Mountain Press, Missoula, MT, 2007. 64 pp., illus. $12.00 (ISBN 9780878425327 paper).

Don't Touch That! The Book of Gross, Poisonous, and Downright Icky Plants and Critters. Jeff Day. Chicago Review, Chicago, 2008. 112 pp., illus. $9.95 (ISBN 9781556527111 paper).

Monarch and Milkweed. Helen Frost and Leonid Gore. Atheneum Books for Young Readers, New York, 2008. 40 pp., illus. $17.99 (ISBN 9781416900856 cloth).

Photosynthesis. Alvin Silverstein, Virginia Silverstein, and Laura Silverstein Nunn. Lerner (Twenty-First Century Books), Minneapolis, MN, 2007. 80 pp., illus. $31.93 (ISBN 9780822567981 cloth).

A Seed Is Sleepy. Dianna Hutts Aston. Chronicle Books, San Francisco, 2007. 40 pp., illus. $16.95 (ISBN 9780811855204 cloth).

Winter Trees. Carol Gerber. Charlesbridge, Watertown, MA, 2008. 32 pp., illus. $15.95 (ISBN 9781580891684 cloth).

The relation between picture and text has been an issue in scientific publishing for centuries. Biologists like Carl Linnaeus thought words were important in describing species characteristics, whereas pictures were misleading or at least of less significance than words. On the other hand, the 19th-century biologist Ernst Haeckel, who was himself an artist, used pictures and diagrams liberally in his books. At that time, there were two schools of thought on illustrations. Some scientists saw them as essential to scientific communication, while others regarded them as relatively trivial and more suited for communicating science to the general public. This divide led to a split in the type of illustration found in scientific and popular publications. In the former, there was usually a focus on a particular species or a portion thereof, while in the latter, scenes were often presented and stories told through images.

This same dichotomy is seen in the books under review here. Many of the images in *Photosynthesis*, for example, provide information rather than tell stories, whereas the books with "alien" in the title present whole environments, just the type of thing not usually found in scientific papers. Yet these scenes with their narrative style are attractive to young readers and support the text in a different way than more Spartan images do.

What all these books do have in common is that they in some way deal with the green world. In the scientific realm, plants have gotten short shrift for ages. Since the dawn of molecular biology, botany has been shoved to the sidelines, and plant scientists have even complained of the public's "plant blindness," the inability to appreciate the green world and its significance. This situation now seems to be changing as a result of global warming and the energy crisis. All of a sudden, plants matter. People are beginning to appreciate that trees use up prodigious amounts of carbon dioxide and that plants can be renewable sources of energy.

This increased interest in the green world is reflected in the publishing world with a significant crop of new books that concentrate on plants, although these books, in most cases, do not deal with them exclusively. This makes sense; plants live in communities and have a host of relationships with the animal world. It would give children a false sense of the living world to focus too narrowly on the botanical. The one book in this collection that deals only with plants is also the most technical: *Photosynthesis* (ages 11 to 14), by Alvin Silverstein, Virginia Silverstein, and Laura Silverstein Nunn. Clearly written, it has a textbook style of prose and format; photos and simple diagrams augment the text. It's a competent production and would be a useful supplement for eager biology students in junior high school. Like many books for older children, this one has a glossary.

For slightly younger readers, the emphasis seems to be on the dangerous, the strange, and the alien. *Don't Touch*

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That! (ages 9 to 12) is subtitled "The Book of Gross, Poisonous, and Downright Icky Plants and Critters." This volume is not for children—or adults—who are fearful or have a tendency toward hypochondria. It is obviously aimed at adolescents who are fascinated by the disgusting. Written by a physician, Jeff Day, it takes a lighthearted and corny approach to the dangers lurking in the natural world. The text is peppered with many brightly colored and rather "icky" cartoons. The information is sound, and there's a great deal of it. The book begins with plants, concentrating on poison ivy, moves on to insects and spiders, and ends with vertebrates, particularly ones that bite.

Two other books play up kids' fascination with aliens, though they deal not with visitors from other planets but with species from other ecosystems. These books discuss invasive species of plants and animals. *Alien Invaders* (ages 9 to 12), by Jane Drake and Ann Love, and *Aliens from Earth* (ages 8 to 12), by Mary Batten, cover similar territory. Both stress the role of humans in the movement of organisms far from their native terrains, and they are liberally illustrated with art having a slightly menacing cast. *Alien Invaders* has the more sophisticated text, and at the end of each two-page spread is a list of the species, together with their sizes, areas of origin, and means of spread to other areas. *Aliens from Earth* places more emphasis on preventing further invasions and stemming the damage done by present ones.

Amazing Plants (ages 7 to 10), by Honor Head, takes a fun approach to the green world, focusing on the variety of adaptations to be found in this kingdom. It has at least as much space devoted to photos as to text, but the problem is that the text amounts to little more than explanations of the pictures. There is little background information, so without some prior knowledge of plants, the text may not be very illuminating, aside from the "wow" factor provided by the odd properties discussed.

Beth A. Peluso does a better job of providing sufficient information to make her beautiful illustrations understandable. She has chosen a narrow topic for *The Charcoal Forest* (ages 4 to 8), namely, how a forest fire can be beneficial for many plants and animals. Her text aspires to be interesting rather than amazing. Although the book's vocabulary is rather sophisticated, which isn't always necessary, Peluso does highlight difficult words in the text and define them, and a glossary is included.

One reason Peluso is so successful at integrating illustrations and text may be because she has produced them both. This blend of talents is obviously useful, but it isn't essential for producing outstanding books for children. There are also excellent writer/illustrator teams, and three of them noted below have produced beautiful and varied books on plants for younger readers. It seems as if it is easier to integrate word and image for this age group, perhaps because the word-to-image ratio favors the latter. Or perhaps publishers see images as more important for this audience and therefore take greater care and put more resources into the production of quality pictures.

Winter Trees (ages 4 to 8), by Carol Gerber, is simply written and crisply illustrated. A child and his dog share a walk through a snowy woods, inspecting a variety of trees. At the end, there's a review of the different characteristics of these trees in winter. This book is a nice introduction to the art of observing nature. It also sends the message that humans are part of nature—they move and act in it. This is not apparent in the two books reviewed below; in those, there is no hint of the human species. Each pictures a world in which other species exist without relation to us, thus sending a very different message about the living world, and perhaps reinforcing the view that humans really are apart from the rest of nature.

Diana Hutts Aston's *A Seed Is Sleepy* (ages 5 to 8) takes a slightly more fanciful approach, and as the title implies, it is definitely more anthropomorphic. Seeds aren't just sleepy, they are secretive, adventurous, and generous. This may make some biologists uncomfortable—they are usually careful to avoid such language—but this book is for children, who look at the world differently and need a vocabulary that allows them to relate to seeds, which can be seemingly lifeless objects. Yet this language, geared to young children, often shares the page with some difficult vocabulary that seems beyond the reach of the intended audience. The illustrations, however, make up for any deficiencies in the text. They are stunning and varied, from the interior of a bean seed to a stately redwood. At the beginning and end of the book are double-page spreads. The first shows a variety of seeds, each labeled with the name of the plant that produced it. The spread at the end of the book displays all the plants, also labeled. I can see a child spending pleasant time matching seed and plant—learning about plant identification and the art of observation at the same time.

Monarch and Milkweed (ages 6 to 9), by Helen Frost and Leonid Gore, is a gem. It presents the yearly life cycle of the monarch butterfly and of the milkweed plant on which it lays its eggs. The monarch's migration north from Mexico in the spring and back south in the fall is presented both in the text and in two simple but effective maps on the endpapers—the only volume in this collection to make educational use of a book's endpapers. The text is simple and straightforward, a good example of how science can be presented clearly to the young. This book would make a lovely gift for a youngster, and it would be a joy for an adult to read to a child. *Monarch and Milkweed* provides a beautiful example of the interrelationship between species in nature, a lesson that a child is never too young to learn. In fact, all these books are reminders of how dependent species are on one another, and especially on the plant kingdom.

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