

SOURCES

individuals such as P.T. Barnum, Alexander Graham Bell, Melvil Dewey, Emily Dickinson, Dorothea Dix, Cyrus W. Field, Geronimo, Eli Lilly, Levi Strauss, Mark Twain, and Victoria Woodhull among over a hundred others.

While the encyclopedia includes an “A–Z Contents” section with the correlating page numbers, I wish the “Topic Finder” section also included page numbers; although if you were to find an entry to look up in the topic finder, it wouldn’t take too much effort to go to the contents since they are listed alphabetically. Colleges, universities, public libraries, and high school libraries could all benefit from this work. At \$249 it is much more affordable than similar works that are listed upwards of over \$800.—*Rachael Elrod, Reference/Instruction Librarian, The Citadel, the Military College of South Carolina, Charleston, South Carolina.*

Encyclopedia of Invasive Species: From Africanized Honey Bees to Zebra Mussels. By Susan L. Woodward and Joyce A. Quinn. Santa Barbara, Calif.: Greenwood, 2001. 2 vols. acid free \$189 (ISBN: 978-0-313-38220-8). E-book available (978-0-313-38221-5), call for pricing.

The *Encyclopedia of Invasive Species*, in 2 volumes, provides a clearly presented and well-organized introduction to invasive species and, briefly, to the history of invasion science. The eighty-eight entries in volume 1 address invasive microorganisms, fungi, and animals and are arranged alphabetically within their major taxonomic groups (microorganisms, fungi, invertebrates, and vertebrates). The eighty plant entries in volume 2 are arranged by growth form categories (aquatics, forbs, graminoids, shrubs, trees, and vines). The general introduction contained in volume 1 explains what might constitute an invasive species and discusses the various issues that arise from inconsistent uses of terms to describe invasive and nonnative species. Excellent examples of the impact of invasive species of all types are presented in the general introduction, whereas a brief overview in volume 2 emphasizes invasive plants. Volume 2 contains a table of common and scientific names and several appendixes listing American species that are invasive elsewhere, laws related to prevention and management, international agreements, the IUCN’s list of 100 of the “World’s Worst Invasive Alien Species,” and a selected bibliography. Both volumes include a state-by-state list of occurrences of invasive species, a glossary, and a comprehensive index.

The 168 species included in the encyclopedia were selected in order to represent and illustrate a wide variety of invaders in the United States. Some of the species included have been present from colonial times, while others have only recently become established. Entries include species found throughout the country as well as some that are extant in only a few areas or states. In order that room could be made for invaders of all states, those states with the highest numbers of invaders such as Hawaii or Florida will not find all of their invasive species listed.

Each entry includes the following information about the

organism: native range, US distribution, description, related and similar species, introduction history, habitat, diet (for animals), life history (for animals, fungi, microorganisms only), reproduction and dispersal (for plants), impacts, management, and selected references. Black and white photographs of the organisms are present for many of the entries, and maps showing the original and invasive range are included for all. A short bibliography of recommended resources, including websites, concludes each entry. In volume 2, sidebars highlight interesting facts about the plant’s use, history, or strategies for control.

Woodward and Quinn’s work focuses on the 168 species they have chosen for inclusion. In comparison, the recent single-volume *Encyclopedia of Biological Invasions* edited by Simberloff and Rejmánek (University of California Press, 2011) contains articles on broader topics such as “integrated pest management” and “evolutionary response, of natives to invader” rather than species-specific entries. Both resources are available in print or electronic version and would complement each other in a reference collection.

While more comprehensive lists of invasive species are freely available in online databases such as the IUCN’s Global Invasive Species Database (www.issg.org/database/) and the National Invasive Species Information Center (www.invasive-speciesinfo.gov/), the *Encyclopedia of Invasive Species* presents an easily digestible and well-organized “introduction to the species, issues, and management options involved with invasive animals, fungi, microorganisms, and plants” (xxxvi) and thus achieves its stated purpose. The authors also succeed in meeting their goal of writing for a general audience at the high school and college level and have produced a clear and accessible work. Recommended for high school, college, and public libraries.—*Aimée deChambeau, Head of Electronic Services, The University of Akron, Akron, Ohio*

Encyclopedia of Mathematics and Society. Ed. by Sarah J. Greenwald and Jill E. Thomley. Hackensack, N.J.: Salem, 2011. 3 vols. alkaline \$595 (ISBN: 978-1-58765-844-0). Online access included with purchase of print.

Has there ever been a mathematics teacher in a typical high school or undergraduate class that has not been asked “What is this good for? What will I ever use it for?” Examples like budgets or stating that engineering requires calculus does not dispel the skepticism. The purpose of this new and unique resource, published by Salem, is to explain “what this is good for” in surprising ways. This three volume academic work will be a general and nontechnical resource for students and teachers to understand the importance of mathematics. *The Encyclopedia of Mathematics and Society* is meant to be a source of information on the fundamental science and applications of mathematics behind our daily lives while showing how and why mathematics works and how the branches of mathematics affect our daily lives.

The 490 articles in this encyclopedia fall into one or more of the following fifteen broad categories: architecture