

Book Reviews

NATIVE HABITATS OF THE TWIN CITIES AREA

Minnesota's St. Croix River Valley and Anoka Sandplain: A Guide to Native Habitats. Daniel S. Wovcha, Barbara C. Delaney, and Gerda E. Nordquist. 1995. University of Minnesota Press, Minneapolis. 234 pages. \$17.95 (paper).

European settlers and their descendants have left an indelible mark on the landscape of most of the Nation, especially near major population centers. Responding to the dramatic changes in landscape, conservation biologists find themselves scurrying to save a bit of the once bountiful diversity. But before steps can be taken to protect remaining resources, a thorough inventory of the land and its resources is required.

Lamenting the destruction of an island off South Carolina, the singer Jimmy Buffett asked an important question facing conservation biologists everywhere, "How can you tell how it used to be when there's nothing left to see?" Fortunately for those involved in habitat protection and preservation, the authors of the present book have answered Buffett's question admirably.

Covering an area centered on the Twin Cities of Minnesota, the book begins with an overview of the geologic history of the region including an easy-to-understand description of the influence of glaciation in shaping the landscape. This section is followed by an exhaustive description and inventory of the area's native habitats and natural communities. Each native community is described in simple biological terms, which should enhance understanding by a myriad of users.

Tucked inside each community account is descriptive information on soils and geology; plant community structure; historic and present distribution of the community; areal extent; a summary of the principal canopy, shrub layer, and ground layer plant species; a listing of the primary vertebrates that make up the fauna; a brief discussion of the disturbances and threats that hinder the continued presence of the community; and a brief listing of associated natural communities. This level of detail is provided for at least 33 native communities.

The book concludes with more useful information, including a guide to representative examples of each plant community in the study area,

county checklists of the fauna of the region, a summary of additional information available, a glossary of terms, a bibliography, and indices.

The book is filled with historic and recent photographs of plant communities, along with numerous side-bar discussions of important ecological components of the region. The bibliography is thorough, missing, by my count, only one major publication on the birds of the region.

Although the reach of the book is limited to east-central Minnesota, its format and objectives should be used by other conservation biologists when developing regional summaries of native plant communities or when devising plans to preserve what little of native America remains in their area.--Craig A Faanes, U.S. Fish and Wildlife Service, Arlington, VA 22203.

THE CHRONOLOGY OF LIFE

Evolution & Escalation: An Ecological History of Life. Geerat J. Vermeij. 1987, 1993 (paper). Princeton University Press. Princeton, NJ. 527 pages. \$18.95 (paper).

Geerat Vermeij's view of evolutionary progress is now available in paperback. The original edition was well-received by reviewers (e.g., L. M. Van Valen, *Condor* 91:1015-1017, 1989), and the low-cost paperback version should ensure wider availability.

Vermeij offers, as he says, "one biologist's interpretation of the participants, conditions, processes, and events that together constitute the chronology of life during the last six hundred million years of earth history." The book consists of four parts: "A theory of adaptation," "The acquisition of resources," "The evolution of armor and locomotion," which clearly reflects his background in marine molluscs, and "Escalation, diversification, and extinction."

Despite its emphasis on marine mollusc examples, the book addresses evolution in general. Vermeij tried to make the book accessible to a general audience by defining technical terms as they are encountered in the text. He hoped, in fact, that the message he delivered would be received by historians of human affairs, and that it would teach about the futility of arms races among nations.--*Staff.*