Review: Protecting Life on Earth: An Introduction to the Science of Conservation

By Michael P. Marchetti and Peter B. Moyle

Reviewed by Byron Anderson

DeKalb, Illinois, USA

Marchetti, Michael P. and Moyle, Peter B. *Protecting Life on Earth: An Introduction to the Science of Conservation.* Berkeley, CA: University of California Press, 2010. xi, 220 pp. ISBN: 9780520264328, US $49.95, paper. ISBN: 9780520947995, US $40.00, E-Book.

The goal of *Protecting Life on Earth* is "to explain to an intelligent non-scientific audience why conservation is a vitally pressing issue" (p. x). To accomplish this, the book delves into the heart of conservation science: life, diversity, evolution, and protection. A lot of jargon, for example, biogeochemical cycling, is explained, creating a basis for understanding of the science of conservation. Besides gaining knowledge, readers will come to realize that they have a personal role to play in conservation.

The authors, Michael Marchetti and Peter Moyle, professors of ecology and conservation biology respectively, do a first-class job of explaining how we got ourselves into the present environmental crisis. They approach conservation from a biological and scientific point of view, but also cover areas of values, ecological economics, and the American legal system as they relate to conservation. Conservation biology started as a distinct field in 1980 and is devoted to preserving the diversity of life on Earth. The root of the problem is human population growth and increased per capita consumption. Conservation science is "all about minimizing human impacts at all levels" through understanding the world around us and "incorporating this knowledge into our actions and activities" (p. 101). A basic goal of conservation science is "to manage the environment in ways that allow species to continue to evolve and adapt to changing conditions, as they always have" (pp. 46/47).

The book presents some alarming statistics, for example, an estimated 99 percent of species that have ever existed on the planet are now extinct, and that "the current rate of extinction is estimated to be at or about 100,000 species lost every year, a full 2000 times greater than the normal background rate of extinction" (p. 119). Encouraging biodiversity is the only way to counter an ever-changing environment. While the future seems bleak, the authors offer practical solutions to protecting biodiversity, for example, creating transition and buffer zones to insulate and protect sensitive tracts of land. They also introduce the emerging field of restoration ecology where human-degraded ecosystems are brought to a more desirable state. The book concludes with a number of actions and activities that individuals can personally do to make a difference, for example, by cutting back personal vehicle use by combining errands, and when possible, walking, biking and using public transportation. "The best thing we can do is "to be aware of our choices and the effects they have" (p. 204).

Protecting Life on Earth is a textbook, but written in such a way as to be accessible to interested lay readers. The text is enhanced with a wide array of pictures, graphs, maps, and charts, and each chapter has a "Further Reading" section. The book concludes with a bibliography and index. Though there are similar books on the market, for example, *Fundamentals of Ecology*, 5th ed. (Thomson Brooks/Cole, 2005) and *Introduction to Population Ecology* (Wiley-Blackwell, 2006), *Protecting Life* is recommended for general and science library collections, and is worthy of consideration for undergraduate courses in ecology and/or conservation.

Byron Anderson, <beau804@yahoo.com>, retired from Northern Illinois University Libraries, DeKalb, IL 60115, USA.