

## BOOK REVIEWS

*Readers are encouraged to submit book reviews to the Natural Areas Journal. See instructions and book list at the end of this section.*

Currently, we are lacking book reviewers. If we do not receive enough reviews, we will have to suspend this section of the Natural Areas Journal. Book reviews are an integral part of our journal and we, therefore, encourage you to look at the Book List and, if you see a book of interest, advise Don Bragg of your willingness to write a review. See instructions and book list at the end of this section.

### **Henry Chandler Cowles: Pioneer Ecologist**

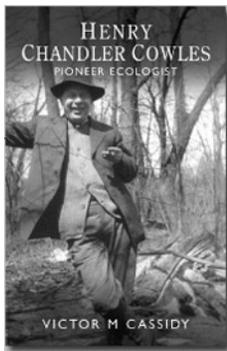
Victor M. Cassidy  
Kedzie Sigel Press, Chicago, IL.  
354 pp., paper. 2007.  
[ISBN 1-934087-20-3]

Henry C. Cowles (1869-1939) played a major role in the development of plant ecology in North America through his research, teaching, leadership in various professional societies, and promotion of conservation. He influenced many North American plant ecologists, including the likes of E. Lucy Braun, E.N. Transeau, W. Cooper, G.D. Fuller, and V. Shelford (Sprugel 1980; Langenheim 1988, 1996). *Pioneer Ecologist* is about the life and work of this hugely influential plant ecologist and is divided into three parts: part one (95 pages), "Biography"; part two (186

pages), "Anthology"; and part three (52 pages), "References." A five-page index follows the three parts.

Cowles grew up on a farm in Connecticut, where he developed an interest in botany after purchasing a copy of *Gray's Manual of Botany* at age 17. He was a "committed Christian" (Congregational Church) throughout his life and a "staunch prohibitionist." In 1888, Cowles graduated first in his class from New Britain (Connecticut) High School and in 1893 from Oberlin College with "high honors." Cowles began his graduate education at the University of Chicago (UC) in January of 1894, when that institution was only two years old. During his first semester, he studied with the geologist T.C. Chamberlain and the physiographer R.D. Salisbury. However, financial problems forced him to temporarily drop out of UC and teach for a year at Gates College in northeastern Nebraska, after which he returned to UC to work with Chamberlain. In his second year at UC, Cowles ran into further problems after failing a test in crystallography and doing unsatisfactory paid-work for Chamberlain.

Enter John M. Coulter, a plant taxonomist and morphologist, who recruited Cowles back to botany, introduced him to ecology, and directed his research on plant succession in the Indiana sand dunes of Lake Michigan. Cowles received his Ph.D. in botany and geology in April 1898. He became a Laboratory Assistant in Ecology in the newly-formed Botany Department at UC (with Coulter as its head) in 1897, advanced to the rank of Professor of Ecology in 1915, and chaired the department from 1925 to 1934. Cowles gave up classroom teaching in 1931 and chairmanship of the Botany Department in 1934, both (probably) because of failing health (Parkinson's disease). He married Elizabeth Lucretia Walter in



Louisville, Kentucky, in 1900. They had one child, a daughter, born in 1912. Cowles died at his home in September of 1939.

The title of Cowles' dissertation was "The Ecological Relations of the Vegetation on the Sand Dunes of Lake Michigan," which was published in four parts in *Botanical Gazette* 27 (nos. 2, 3, 4, and 5) in 1899. Cassidy states (p. 36) that "'Ecological Relations' made Cowles' reputation because he described plant succession in a dynamic landscape with greater clarity than anyone who had come before him." Cowles' thinking about ecology in a dynamic way was greatly influenced by the Danish botanist E. Warming, the father of ecology, through his book *Plantesamfund* [*Plant Ecology*], which Cowles learned to read in the original before it was translated into German in 1896 and into English [*Oecology of Plants*] in 1909.

No doubt, Cowles was well known for his research on the Indiana dunes and for a few other papers he published early in his career. However, he also influenced the early development of North American plant ecology by in- and out-of-classroom teaching, which he loved to do. Cowles taught many ecology courses at UC, including Physiographic Ecology, Ecological Anatomy, and Field Botany. He seems to have done his best teaching on class field trips, which were conducted at quite a rapid pace.

Cowles was a very active participant in professional societies and in conservation organizations. He helped found the Association of American Geographers, Conservation Council of Chicago, Ecological Society of America, and Illinois Forestry Association; and he served as president of the Association of American Geographers (1910), Ecological Society of America (1916), Illinois State Academy of Sciences (1920), Botanical Society of America (1922), and the Chicago Academy of Sciences (1923-24). Cowles volunteered many hours to local and state organizations, and he worked hard to save the Indiana dunes and Illinois forests.

Part II primarily includes a selection of Cowles' articles and presentations. It also