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## Review of Saving the Prairies: The Life Cycle of the Founding School of American Plant Ecology, 1895-1955 By Ronald C. Tobey

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Saving the Prairies: The Life Cycle of the Founding School of American Plant Ecology, 1895-1955. By Ronald C. Tobey. Berkeley: University of California Press, 1981. Bibliography, index. x + 315 pp. \$25.00.

Saving the Prairies is an analysis of the growth, development, and decline of a major school of ecologists centered mostly at the University of Nebraska from the 1890s to the early 1950s. The title stems from Ronald Tobey's conclusion that the demise of the grassland ecologists resulted in part from their involvement in practical problems of range management during and following the devastation of the prairies by the great drought of the 1930s.

The book centers on the ideas, principally plant community succession, developed by Frederic Clements, colleagues such as Roscoe Pound, and a network of students whose research concerned the nature and dynamics of the central grasslands of the United States. Tobey traces the intellectual history of the group from its inception under Charles Bessey through its advancements in quantitative ecology (quadrat analysis) and in theoretical ecology (phytogeography and succession) and eventually to its decline. Within this general chronology Tobey describes the origin of the ideas developed by the Nebraska ecologists in relation to European and American traditions of the time, as well as excellent detail of the activities of the scientists involved, including their travels, correspondence, and conflicts. Tobey's command of the specialized jargon of the science is impressive. He demonstrates how closely the early history and development of ecology as a discipline conforms to general models proposed by Thomas Kuhn and Diana Crane. This appears

to be Tobey's principal contribution and goal. Ecologists who deal with the conflicting demands of applied and pure approaches to their science would do well to study the implications of this case history for their own research efforts.

As an ecologist, I hesitate to evaluate this historian's methodology, but I wonder if some of the shortcomings of the book may stem from the choice of materials that Tobey studied. For example, an entire chapter is devoted to criticism of Clementian ideas by the British ecologist A.G. Tansley, whereas the wellknown conflict between Clements and H.A. Gleason is mentioned only peripherally. Similarly, it is incorrect to conclude that basic ecological work on the grasslands disappeared because the "founding school" scientists became completely involved with applied problems of the drought period. The second generation of "Nebraska ecologists" were indeed involved with ecological effects of the great drought, but as much for basic descriptive and empirical analyses of this natural experiment as for applied purposes. The extensive archival material of Clements's correspondence with federal agencies perhaps biased Tobey's analysis. There is little in J. E. Weaver's bibliography to suggest that he, the second-generation leader, was capable of providing the theoretical shot in the arm that the group needed. The second generation of scientists were not so much unwilling to abandon their paradigm as they were incapable of creating a new one.

Tobey's account of the grassland ecologists implies that the ideas of succession advanced by Clements died long ago. In fact, however, they linger in a highly modified form in textbooks and symposia. As an example of the latter, the discussion at a 1977 conference of ecologists on succession revealed that, even though the jargon has changed, the ideas on one side of the debate remained essentially Clementian.

Despite these criticisms, *Saving the Prairies* is a fascinating book. It should be read by ecologists and historians alike.

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