

The Nature of Eastern North Dakota: Pre-1880 Historical Ecology. By K. E. Severson and C. H. Sieg. 2006. North Dakota State University, Fargo, ND, USA. 308 p. US\$21.95. paper. ISBN 0-911042-65-2.

A question that is often asked about rangeland is how the system functioned before European settlement. This is especially important if the conservation of diversity or natural function is a concern. This is the question that this book addresses, primarily using journals and publications of the first Europeans to travel through the area. There are chapters on climate, people, fire, vegetation, and animals, as well as a final synthesis chapter titled “Form and Function.”

The authors have made both extensive and intensive use of their 19th-century sources. On one hand it seems that life before European settlement was pretty much like it is now: some years were very wet, others very dry; mosquitoes could be dense or absent; mammals were numerous or scarce; grass was thick or sparse. This is valuable context for current managers, showing that there is no single correct state for semiarid grasslands: climate, vegetation, and animal populations vary greatly and continuously. They always have. This is not a license to manage carelessly, of course. The elimination of native species, the conversion to new species, and other activities outside the range of historical parameters result in diversity loss and altered function.

On the other hand, the historical sources sometimes reveal new and interesting insights. For example, many descriptions of wildfire were found, but only one instance of a lightning-caused fire is recorded, and that was an elm tree that apparently did not cause a prairie fire. This suggests that most presettlement fires were human in origin. Another example was the impact of dwindling bison populations on the interactions among Native Americans, Metis from Canada, and the US Army.

The writing is thoughtful, evaluative, and thorough. Observations about fire, flora, bison, and other topics are neatly summarized in tables in the appendices. I would have liked to have seen even more synthesis. For example, the extensive quotes about the limits of woody vegetation might have been boiled down to a map or numerical analysis. I would also have liked to see a little more 20th-century science, such as palynology, integrated with the historical sources.

The text would have benefited from more careful editing. Topic sentences would help to clarify the internal flow of chapters. People are reintroduced in each chapter, so that Alexander Henry, for example, is introduced four times in the first 100 pages. There is much repetition among the “Climate,” “Vegetation,” “Fire,” and “Form and Function” chapters. Additionally, I am not sure that the fossil record from millions of years ago is relevant.

This book provides a fascinating overview of presettlement eastern North Dakota. It is a valuable compendium of primary and secondary sources.

Scott Wilson, Associate Dean (Research), Faculty of Science, University of Regina, Regina, SK, Canada. ♦

