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Prairie Wetland Ecology: The Contribution of the Marsh Ecology Research Program. Edited by Henry R. Murkin, Arnold G. van der Valk, and William R. Clark. Ames: Iowa State University Press, 2000. xiv+413 pp. Illustrations, appendices, figures, tables, references, index. \$79.95 cloth.

Developing a thorough understanding of how prairie wetlands function is a daunting challenge. The Marsh Ecology Research Program (MERP) was initiated in response to the recommendation of Milt Weller that a team of specialists develop an experimental multidisciplinary research program to advance marsh management theory. Through the efforts of Bruce Batt, Pat Caldwell, Henry Murkin, and others, a research team was assembled and a long-term project carried out that ultimately led to nearly a hundred scientific papers, sixteen theses and dissertations, and this book.

The MERP team accomplished its task through a ten-year research program that monitored the nutrient and biotic responses to water level manipulations in a series of diked wetland cells located along the northern edge of Delta Marsh in southern Manitoba. The project was designed to simulate the wet-dry cycles of prairie wetlands.

The book is divided into four parts and includes thirteen chapters. Part 1 describes the experimental design and the history of Delta Marsh; part 2 addresses nitrogen, phosphorus, and carbon budgets of the experimental cells through a series of stages from drawdown to lake stage; part 3 addresses vegetation dynamics, algae, invertebrates, avian use, and muskrat ecology along with a synthesis of pertinent literature on prairie wetland ecology; and part 4 discusses management implications for prairie marshes along with recommendations.

As the wet-dry cycle of prairie wetlands is central to their dynamic state and to maintaining high productivity, the book is well positioned to offer insight to anyone seeking a well-rounded understanding of prairie wetlands. Beyond the many interesting findings throughout, the chapters on management implications and recommendations contain much practical wisdom that field biologists will appreciate. I was particularly pleased to find detailed information on the underlying factors responsible for prairie wetlands becoming unproductive for marsh wildlife at the lake stage. This material is timely as prairie marshes, both large and small, increasingly become permanently flooded in response to a wide array of human activities.

MERP is not, nor was intended to be, the definitive study of prairie wetlands, given the scope of factors affecting their productivity. The volume does not address effects of agricultural land use on prairie wetland productivity, for example, which, given the scale of impact, deserves similar attention but was beyond the scope of this project. Although raising as many questions as it answers, MERP will leave a lasting mark on the field of wetland ecology, and *Prairie Wetland Ecology* will be a welcome addition to the library of any biologist seeking information on the processes and functions of prairie wetlands, in particular, but also on wetlands in general. **Gary L. Krapu**, *US Geological Survey, Northern Prairie Wildlife Research Center, Jamestown, North Dakota*.