

Preface to the second edition

In the six years since the first edition of this book was written, our knowledge of the ecology of wetlands has increased significantly: you could even say without too much hyperbole, immensely. While I was writing the first edition, my model for an ideal introduction to freshwater wetlands was John Etherington's 1983 classic, *Wetland Ecology*. Anyone familiar with Etherington's book will immediately recognize that its organization is similar to that of this book. (Etherington's book covered peatlands, which are not covered in any detail in this book. Hence, there is no counterpart to his chapter on peat. There is an excellent companion book in this series, *The Biology of Peatlands*, by Hakan Rydin and John Jeglum (2006).) In a little over 60 pages, Etherington managed to capture the essence of wetland ecology better than the much lengthier books that followed. Even though I strove to keep my book as short as possible, the first edition (2006) was still over 170 pages long. This was largely a reflection of how much the field had grown in the 23 years since Etherington's book had been published.

Because so much has happened in wetland ecology in the last six years, the second edition of this book has grown significantly. The amount of shelf space in my office that holds wetland books has doubled in the last six years. There are not only more books being published on wetlands than ever before, but also much larger books. Three recent and important tomes that weigh down my shelf are: Maltby and Barker's (2009) *The Wetland Handbook* (1068 pages), Kadlec and Wallace's (2009) *Treatment Wetlands, Second Edition* (1016 pages), and Reddy and DeLaune's (2008) *Biogeochemistry of Wetlands* (a modest 774 pages). Needless to say, keeping up with the literature is not getting any easier, but I have tried. I have also tried to continue to emphasize fundamental concepts and to provide a balanced overview of freshwater wetland ecology. This means that I have striven to over-emphasize some topics at the expense of others. In other words, the coverage of topics in the second, as in the first edition, does not reflect the size of the literature on a topic.

What's new? The first six chapters in the first edition have all been revised and updated. Four new chapters have replaced the first edition's Chapter 7: Invasive Species; Restoration and Creation; Global Climate Change; and the Value and Future of Wetlands. All these topics were covered in the first edition, but superficially. All of these new chapters deal, one way or another,

with the management of wetlands. This reflects my belief that the future of wetlands will largely depend on improving their management. In the course that I teach on wetland ecology, and on which this book is largely based, my students give talks on major wetlands around the world. I started doing this because my off-handed references to various wetlands in which important studies have been done often elicited the same questions during lectures: What kind of wetland is that? Where is it? This edition adds a series of short descriptions in text boxes of a handful of wetlands that have been particularly important in the development of wetland ecology. I readily admit that my selection of wetlands to include is highly subjective and is strongly biased towards wetlands on which I have worked over the years (the Delta Marsh and Prairie Potholes) or wished I had (the Hudson Bay Lowland and the Okavango Delta, my favorite wetland). As in the first edition, there are also a number of text boxes that deal with some selected topics in more detail, e.g. oxidation-reduction reactions. Over the years, feedback from instructors—thank you—who have used this book as a text have indicated that these were useful. Several new ones have been added.

In recent years, a number of pioneering wetland ecologists have passed on, including Mark Brinson, John Kadlec, Bill Patrick, Robert Wetzel, and Tom Winter, or have retired, including Bruce Batt, Eville Gorham, and Milt Weller. All of them have greatly influenced me personally and/or professionally. This second edition is dedicated to them. Again, I would like to thank my wife Suzanne for all her editorial help and encouragement. She continues to be the English major with the best grasp of wetland ecology in world.

Arnold G. van der Valk
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