...interactions such as herbivory, topics in forest ecology class. Several interactions with invasive species. Influence methods on biology would be more valuable approach involving multiple studies. Recommend this book to students.

- Johanne

Bowman, Oregon State

**Halophyte Uses in Different Climates I. Ecological and Ecophysiological Studies.** H. Leith, M. Moschenko, M. Lohmann, H.-W. Koyro, and A. Hamdy (eds.). 1999. ISBN 90-5782-038-2 (softcover NLG 85 (definitive); approx. US$75.00). xi + 218 pp. Halophyte Uses in Different Climates II. Halophyte Crop Development: Pilot Studies. A. Hamdy, H. Lieth, M. Todorovic, and M. Moschenko (eds.). 1999. ISBN 90-5782-025-0 (softcover NLG 85 (definitive); approx. US$42.50). xi + 144 pp. Both published by Backhuys Publishers, PO Box 321, 2300 AH Leiden, The Netherlands. E-mail: info@backhuys.com. - In the last several decades, as agricultural lands have been degraded by overuse of fertilizers, salt-water intrusion, loss of topsoil, and desertification, scientists and agronomists have focused research attention on using salt-tolerant plants (halophytes) in agricultural systems. One prime driver of this research has been the European Commission, which supports a Concerted Action program in the utilization of halophytes. These two volumes are the first synoptic presentation of the results of this research program; the included papers were presented at the 1998 International Congress of Ecology (INTECOL) in Florence. Volume 1 primarily covers ecophysiology and basic ecology of a relatively small number of halophytes being considered for saline agriculture: Beta vulgaris ssp. maritima, Suaeda fruticosa, Spartina maritima, Halimione portulacoides, Arthrocnemum fruticosum, and Laguncularia racemosa. These plants are being examined for use as sugar, oil, and forage crops, or for agro-forestry. The eleven contributions in this volume, span a diversity of continents: Europe, Africa, the Middle East, and North America, but most share a common methodology. The responses of individual species to different levels of salt crossed by nutrients, normally in the greenhouse, but occasionally in the field, are reported, and implications for their use in agriculture is discussed. Volume 2 presents the

case-studies: attempts at reclaiming degraded lands for saline agriculture and agroforestry in Italy and the Middle East. Some of the case-studies are actual examples, whereas others are basic reports similar to those presented in Volume 1.

The quality of the papers in these volumes is highly variable. Although all papers are written in English, for all but one of the papers across both volumes, English is not the primary language of the authors. The manuscripts were not edited by a native English speaker, and so the reading papers can be slow and confusing for native English speakers. The figures and tables are generally clear, though, so the main message of each paper is apparent.

To me, the most valuable aspects of these two volumes are two review chapters. In Volume 1, Menzel and Leith present version 2.0 of their halophyte database. This database of over 2000 species, complete with synonyms (from Index Kewensis), their salt tolerance, and references to the literature (incomplete, but a complete Internet-based list is proposed for the future) is a gold-mine for individuals interested in determining what plants might be suitable for saline agriculture and agroforestry. In Volume 2, the same authors tabulate the uses of 69 halophytes (24 of which are species of Atriplex), along with their origin, region of cultivation, salinity tolerance, and photosynthetic type (C3 or C4). Finally, there is one-page table (Annex [or Appendix] 3 in Volume 1) that gives conversions for commonly-used salinity measurements. In one place, I can now look up the relationship between parts-per-million, dS/m, mmhos, meq/L, mol/m³, μS/cm, and mmol/kg of NaCl. This conversion table will allow one to make some sense of the myriad units used for salinity in the vast literature on halophytes, as there is no established SI standard unit for salinity. Climate diagrams are provided for all study sites referred to in both volumes.

These volumes are aimed at a narrow audience: individuals interested in saline agriculture. The price seems quite high, given that many potential buyers are in developing countries, or at state agricultural universities facing declining library acquisition budgets. The papers are of archival value, but the on-line database (no URL is provided) will be of more long-term utility. - Aaron Ellison, Dept. Biology, Mount Holyoke College, South Hadley, MA 01075.

**Savannas, Barrens, and Rock Outcrop Communities of North America.** Anderson, R., J. Fralish, and J. Baskin. (eds.) 1999. ISBN 0-521 57322-X (hardcover) Cambridge University Press. - The three ecologists serving as editors of this treatise on savannas and related communities have provided an excellent, multi-authored summary of a voluminous and scattered literature. This compilation of 26 papers is an outgrowth of the North American Conference on savannas and barrens held at Illinois State University in 1994; it emphasizes regional areas in the United States and Canada (east/southeast; central/midwest; western/southwest; northern), but includes communities as diverse as oak savannas, jack pine woodlands, alvars, and serpent

...