

## BOTANY

**Biotic Forest Communities of Ontario**

By Norman Duncan Martin and Norma M. Martin. 2003. Commonwealth Research. Belleville, Ontario, Canada. 195 pages. \$10.00 paper.

Martin and Martin set out to identify the basic forest communities of Ontario, describe their biotic composition, and consider the successional relationships among them. While they draw on an impressive amount of personal research and a broad literature survey, the book lacks focus and therefore may have a limited value to a general audience.

A fundamental component of any scientific study is that the work must be repeatable. When presenting study results it is therefore essential that the methods are clearly laid out. This is not the case here. The reader is informed that the authors tallied vegetation in transects in various types of forest. A single map of transect locations is provided, with numerous examples of data sheets. No details are provided to explain the selection of transect locations nor which aspects of the vegetation were sampled or how. There is also no explanation of the analysis itself, other than to acknowledge the influence of the "schools of interpretation" of Clements, Curtis, Hills, Whittaker and others. These were indeed important workers in this field, but listing their names doesn't allow the reader to critically examine the results of the current study.

The bulk of the book is devoted to descriptions and tables illustrating the ten forest community types identified by the authors. There are interesting observations here, but the sheer quantity of poorly organized data makes it difficult to appreciate. Most of the data is presented as tables showing various measures of

abundance in selected samples. The only graph prepared by the authors is labelled as showing a "discernable pattern with characteristic variability". The discernable patterns are lines overlaid on the plotted points without any statistical support. This would not be acceptable in an undergraduate ecology class, let alone a scholarly thesis.

It is unfortunate that the authors make no reference to Lee et al. (1998), which has become the standard forest classification system for Ontario. It may be interesting to contrast the ecological land classification (ELC) of Lee et al. with Martin and Martin's forest communities. If their data could be used to refine or correct the ELC system it would be far more useful than it is as a stand-alone study.

The most interesting part of this book is the relationship between forest types and their fauna. The authors have collated a great deal of their own data as well as data from published and unpublished sources. A more thoughtful analysis of this aspect of their study might produce a more enduring contribution to the study of forest ecology in Ontario.

**Literature Cited**

Lee, H., W. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. Ecological land classification for Southern Ontario: first approximation and its application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

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**Les champignons des arbres de l'est de l'Amérique du Nord**

By Bruno Boulet. 2003. Les Publications du Québec, Sainte-Foy, Quebec, Canada. 727 pages. \$49.95

The author and a number of colleagues have invested a considerable effort to produce this detailed treatise on the principal wood-inhabiting fungi (mostly polypores) of eastern North America. The 19 × 24 cm, hardcover book is heavy but the binding is robust. The book contains nearly 500 color pictures, typically 6 or 7 on a page, of very good quality.

There are three principal sections. First there is a brief commentary on the vegetation of Quebec, especially in relation to the geographic and host distribution of the wood-inhabiting fungi. Then 118 pages are devoted to a discussion of the state of our knowledge of the polypores, including their medicinal properties, edibility, and traditional and commercial uses. The role of these fungi as forest pathogens and their influence on the management of forests are reviewed and various tree defects caused by these fungi are depicted in color.

The second section of the book introduces the reader

to the taxonomy, nomenclature and classification of the polypores, as well as their distinctive macroscopic and microscopic features. The latter are in some instances essential in naming specimens. This section concludes with an explanation of the most common means of identifying and naming a specimen, i.e., the botanical dichotomous key, and a key including over 400 taxa. About 120 of the 400 are mushrooms that are briefly described in the key and 76 of them are shown in a color photo. Many are truly wood-inhabiting fungi but a few are mycorrhizal (*Lactarius* and *Russula*) and others are incidental inhabitants of well-rotted woody debris.

The third and the major part of the book presents essential information that allows recognition of 169 species, observations on their biology and ecology, color pictures, and distribution maps. Readers should be cautious in their interpretation of the distribution maps because when I compared 8 maps with distributions in two references from the bibliography, i.e.,