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REVIEWS

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CHAIYA CLARA HEYN & ILANA HERRNSTADT (EDITORS). *The Bryophyte Flora of Israel and Adjacent Regions*. Parts 1 & 2. xi + 719 pages, 246 figures, 247 distribution maps, 24 photographic plates (8 in color), 1 color map. Flora Palestina, Israel Academy of Sciences and Humanities, Jerusalem. Backhuys Publishers B.V., Leiden. 2004. [ISBN 965-208-004-4, 965-208-152-3]. Price: €72 + postage and handling (hard cover). <http://www.euronet.nl/users/backhuys/hebr.htm>.

This long-awaited book was finished and submitted for publication in 1999, but was not printed until 2004; now, *ayn zo agadah* (it is no legend)! We are presented with a complete, fully illustrated, and well-documented bryophyte flora of Israel. Part I, Bryopsida (mosses) is by Ilana Herrnstadt and C. Clara Heyn, while Part II, Anthocerotopsida (hornworts) and Marchantiopsida (liverworts) is by Helène Bischler and Suzanne Jovet-Ast. The work provides keys, descriptions, discussions, illustrations, glossary, and an extensive bibliography for all 259 species (220 mosses and 39 hornworts and liverworts) known for the area, mapping a block of territory including Israel, the Golan Heights and the West Bank. Ecosystems included are coastal areas, plains, mountains, deserts, valleys and the Dead Sea region.

This is the first major compilation of bryophytes of the area since Bilewsky's Israeli moss flora (*Nova Hedwigia* 9: 335–434, 1969). Eighty-seven species were discovered

new to the area during the twenty years of research for this book—Heyn and Herrnstadt began their study in 1978, Bischler and Jovet-Ast in 1982. Representative specimens are largely deposited at HUJ (mosses) and PC (hornworts and liverworts). The largely full-page illustrations are pleasing, anatomically detailed and comprehensive, with the mosses done by Michal Boaz-Yuval and Esther Huber, and the liverworts by Bischler and Jovet-Ast. The book is lit by the color photographic plates of David Darom.

The book itself is hefty, well bound, Smythe-sewn (opens flat), about 28 × 18 × 4 cm, and has a striking dusk jacket. It is well printed on clay-coated paper in easily read type-face. The English is excellent and no errors leap forth. The research represented by this impressive tome is clearly vast and amounts to a major contribution to bryology. Israel is an area of Mediterranean climate, moist in winter but dry in summer, and the amazingly rich bryophyte flora, including a large proportion of the family Pottiaceae, is generally adapted to arid environments. A concise introduction details habitats and offers particulars on local desert regimes, bryophyte ecology and distribution. A key to families introduces the taxonomic sections of both Parts I and II. Families and genera are each described and discussed, with a short bibliography of relevant literature. Each species treatment gives correct name and synonymy, reference to illustration and distribution map, a well-detailed description, occasionally including reference to SEM plates, consideration of habitat and local distribution, world distribution, and a discussion of salient characters of the species, often with a short historical review of different treatments by previous authors.

So, *nu?* Should you buy it? Definitely. Given the price and the wealth of information, it's a bargain. The Israeli moss flora is essentially European with an admixture of Asian species. It thus throws light on species that are rare or which may be expected to be found in northern Europe or North America, especially western North America. For instance, the genus *Gymnostomum* includes *G. aeruginosum*, *G. calcareum*, *G. mosis*, and *G. viridulum*, illustrated and nicely distinguished. The Asian *Anoetangium handelii* is also in the Israel flora, and is a dead ringer for *G. viridulum* but for technical characters; it has recently been found (R. H. Zander & W. A. Weber, *THE BRYOLOGIST*, 2005) in Colorado. Given that species of Pottiaceae that are characteristic of arid lands are commonly much reduced in size and character compared to their more mesic

phenotypes and genotypes, distinction of desert and montane morphological phenocopies requires good description and illustration, both of which are provided in this book.

The classification is a little behind times, given the long sojourn in press, but not by much. I might have wished that the taxonomy of Pottiaceae would have followed my own published concepts more closely, but bryologists justifiably view new taxonomies with some caution. Time will tell.

Clara Heyn died in 1998, Helène Bishler in 2005. Bryology is now less rich, less grounded in collection and taxonomy. But to Herrnstadt and Jovet-Ast we are yet able to say *mazel tov!* for work well done and much appreciated.—RICHARD H. ZANDER, *Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166-0299, U.S.A.*