

## BOOK REVIEW

**Flora of China, Volume 22: Poaceae** by Chen Shouliang, Li Dezhu, Zhu Guanghua, Wu Zhenlan, Lu Shenlian, Liu Liang, Wang Zhengping, Sun Bixing, Zhu Zhengde, Xia Nianhe, Jia Liangzhi, Guo Zhenhua, Chen Wenli, Chen Xiang, Yang Guangyao, Sylvia M. Phillips, Chris Stapleton, Robert J. Soreng, Susan G. Aiken, Nikolai N. Tzvelev, Paul M. Peterson, Stephen A. Renvoize, Marian V. Olonova, Klaus A. Ammann, and Mary E. Barkworth. xii + 733 pp. Science Press, Beijing, China, and Missouri Botanical Garden Press, St. Louis. US \$140. ISBN: 1-930723-50-4. Hardcover.

Volume 22 of the *Flora of China* (FoC) provides, for the first time, an English-language treatment of China's grasses. The number of species involved, 1795, gives some idea of the immensity of the task. Most of the species treated are native to China or established introductions, but a few are known only in cultivation. Some of the species now known only in cultivation, particularly the bamboo species, may be native to China.

The family description is followed by a short, illustrated glossary and a key to the tribes. Subfamilies are not treated, because they are "... based on non-morphological characters that are not readily available for identification purposes" (p. 1). Each tribal description is followed by a key to its genera, the generic descriptions by keys to their species, and the species descriptions by keys and descriptions for their infraspecific taxa, if any. Full bibliographic information is given for accepted names at the rank of genus and below; authors are given for the synonyms cited. The accepted names are followed by a Chinese name. Each tribal and generic description is followed by a succinct summary of the taxon's distribution outside and inside China and, if applicable notes on names whose meaning is in doubt, taxa whose presence in China has been reported but not substantiated, and taxa known only in cultivation. The species descriptions are followed by an ecological synopsis, elevation, and distribution by province inside China, by country or region outside of China. Base chromosome numbers are given for tribes and genera; diploid

chromosome numbers are given for species, with an asterisk being used to indicate a count made on Chinese material. The map on the end papers, which reflects China's interpretation of its borders, show China's provinces and its bordering countries.

The descriptions at a given level within a taxon contain a core of parallel information. The core descriptions provide more detailed and more comparable information than in almost all other regional floras, making them a valuable addition to the world's floristic resources. I am glad that the editors decided to provide additional information for some taxa at the expense of parallelism rather than increasing parallelism by reducing all descriptions to the common core.

The ordering of characters in the leads follows the order in the descriptions rather than their reliability. The leads are, in most instances, parallel, reasonably short and look as if they would work. Examination of a sample of keys and descriptions reveals some discrepancies between the two. The *Bromeae* key out under "leaf sheaths not tubular, margins free", a lead that eliminates *Bromus* from consideration (but not *Littledealea*). To reach *Bambusa*, one must choose "Spikelets (1-) many flowered; ovary with short, solid, apical appendage." (p. 8). There is no explicit mention of flowers in the generic description; the spikelets are described as having 2-many florets. Nor is there mention of the ovary having a "short, solid, apical appendage"; it is described as having "apex thickened and hairy" and a style that is "solid, usually short".

Some terminology will be unfamiliar to North American taxonomists. *Surculose* drove me to a dictionary; it means producing suckers. Other differences reflect continued use of traditional definitions, most noticeably the use of *raceme* for "... an unbranched axis bearing spikelets." (p. 2). The *Triticeae* key out as having inflorescences composed of a raceme with sessile spikelets, *Beckmannia* as having an inflorescence composed of more than one raceme, and the *Andropogoneae* as having, usually, fragile racemes. The descriptions of the *Triticeae* and *Beckmannia*, however, do not reflect this usage.