

**Book Review:** A.D. Poulsen. 2006. *Etilingera of Borneo*. Natural History Publications (Borneo) Sdn. Bhd. in association with Royal Botanic Garden Edinburgh. x + 263 pp. **ISBN:** 983-812-117-7. **Price:** US \$55.00

The ginger family (Zingiberaceae) has more than 1500 species worldwide. The genus *Etilingera* comprises more than 100 species, all confined to Indo-Pacific region. The best-known member of this genus is the widely appreciated ornamental torch ginger, *Etilingera elatior*.

The striking plant diversity of Borneo is well known, and, likewise, is the importance of gingers as spice, vegetable, dye, medicine and other uses. There are few vegetation types in humid or monsoonal tropics where gingers are not commonly found. Borneo is home to at least 300 ginger species of which the genus *Etilingera* is perhaps the most prominent, most diverse, and also most attractive.

Gingers are, however, one of the more difficult plant families to collect and study. Meaningful work can only be done on live and fresh flowering plant materials and requires fieldwork with round-a-year observation to catch the appearance of flowers and fruits, both bearing important diagnostic characters. Fresh flowers of gingers are difficult to preserve, and unfortunately, many studies on gingers, especially early ones, are based on herbarium specimens only. Thus, the common outcome of people trying to key out the ginger species using a published key is - giving up in frustration. Fortunately, this is not likely to happen when using the present book.

The new book on the *Etilingera* of Borneo is the result of the author's 15 years of extensive fieldworks and his thorough study of herbarium specimens in more than 20 herbaria. What more, it is a delightful blend of strictly scientific information with beautiful color photographs, illustrations, and color distribution maps, facilitating the dissemination of information to botanists, foresters, eco-tourists, and even, laymen.

The book starts off with a short introduction and is followed by a chapter introducing the typical *Etilingera* plant. Details of the morphological structures shown in this chapter are especially clarified by images made under the scanning electron microscope. The third chapter, *Etilingera* in Borneo, includes a general topical history, distribution, ecology, species richness, reproductive biology, and ends with ethnobotany and notes on conservation. The last chapter deals with the materials and methods and, in particular, highlights the necessity of good photographic documentation and field sketches as two indispensable supplements to herbarium and spirit

materials. The last few pages, just before the revision itself, are occupied by a key to the Bornean species of *Etlingera*.

The main part of the book features 42 taxa all together. Sixteen species, one subspecies, one variety, and one combination are described. Each species is accompanied by relevant information about the source of publication, synonymy, nomenclatural details, and the type(s). This is followed by a thorough species description, local names and uses, etymology, ecology and habitat, distribution (supported by colour map clearly showing the locality of type specimen), conservation status, list of materials examined, and ends by elaborate notes helping to pinpoint the differences of the species under discussion from its closest taxa, or discussing the tricky issues of nomenclatural history and taxonomic confusions.

Just before the book concludes, there is a big bonus for all botanists printed between the sections of references and indices to scientific and vernacular names. It is a list of identification of all *Etlingera* specimens examined by the author during the course of his preparation work, alphabetically sorted according to a collector's surname, followed by the collection number of species. In case you get stuck in research, for example, with a sheet of specimen collected by *Gobilik J. et al.* 738 kept at SAN Herbarium, you will know within seconds of checking this book that the species of the specimen on this sheet is *E. inundata*.

I tried to find negative points in this new book, however, it turned out to be a tough job. As a true ginger fan, I would welcome the more than 25 pages of introduction part of the book. Nonetheless, information about ethnobotany of various *Etlingera* species is rather little, despite the fact that more than 20 species are used for various purposes. The Table 1 (p. 18) reported uses and number of species used for a particular purpose, e.g., shoot is eaten in 20 species, but the reader is not informed which species are these without going through all the taxa listed. An appendix with an overview of all species and their uses would have been useful.

To facilitate the use of the identification key, more illustrations explaining the various morphological terms would have been welcome because the perception of various structures seen in gingers traditionally deviates from the definition of botanical terms used in other monocot groups. To note, the flower structure is explained well, however, the terms regarding leaf terminology would be particularly useful, if illustrated.

In my opinion, it remains as a matter of fact, that it is faster and much more

enjoyable to identify a species while leisurely flipping through the pages full of stunning and beautiful photographs, including close-up details of each species, rather than using the dichotomous key to the species. I have a feeling that most ginger specialists will use the species key published in the new book only for the first few times to satisfy their curiosity rather than using the key as a regular tool for species identification.

Last but not least, it is always necessary to remind ourselves that in our quickly disappearing plant world today, it is difficult to protect something that we do not know properly, nor recognize, and neither can we identify. This published revision study of the genus *Etilingera* is therefore a much welcome step forward, enabling us to protect the endemic and endangered species of a group of prominent gingers in Borneo.

*Etilingera* of Borneo is definitely a benchmark publication. It shall serve in many years to come as a great example and guide, showing how a modern revision of a complicated genus should be done.

**Jana Leong-Skornickova**

The SING Herbarium  
Singapore Botanic Gardens  
1 Cluny Road  
Singapore