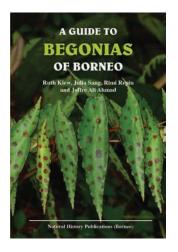
BOOK REVIEW: A Guide to Begonias of Borneo. Ruth Kiew, Julia Sang, Rimi Repin and Joffre Ali Ahmad. 2015.

Kota Kinabalu: Natural History Publications (Borneo). 21.5×15 cm, soft or hard cover, 304 pp. ISBN 978-983-812-160-6 (softcover), ISBN 978-983-812-161-3 (hardcover). Price RM 80 (softcover), RM 140 (hardcover).



Begonias are well-known ornamentals which are cultivated for their spectacular blooms and range of leaf shapes and colouration. The diversity of the common hybrids pales, however, in comparison to the diversity of wild begonias. *Begonia* is estimated to have more than 1800 species, placing it amongst the ten largest genera of flowering plants. Some 200 species have been described from the biodiversity hot-spot of Borneo alone, but no monograph on Bornean begonias is available. Therefore, up till now detailed information on Bornean species could only be accessed by consulting an array of specialist literature. Photos capturing the stunning variation in leaf shape, colour and texture, as well as their flowers, have not been available for most Bornean species.

The authors of A Guide to Begonias of Borneo, together combining decades of experience of Begonia systematics and conservation, managed to unlock this information for anybody interested in *Begonia* and appreciative of botanical diversity and the rich natural heritage of Borneo. The guide provides a richly illustrated 25page introduction giving concise information on previous research, diversity, typical habitats, dispersal biology, identification and conservation of Bornean Begonia. The main body of the guide consists of species pages, with usually two or sometimes more pages dedicated to each of the 134 featured species (c. 70% of the documented species diversity in Borneo). These species pages include (i) brief descriptions of growth habit, leaves, flowers and fruits, sometimes elaborating on unique features of the species; (ii) a full page photograph of the growth habit, usually a large photograph showing an inflorescence or a fruiting or flowering leafy branch, as well as some smaller inset detail shots of flowers and fruits; (iii) information on species distributions on Borneo, but no distribution maps, and usually also some information on habitats where the species can be found; (iv) notes on the etymology of the species epithet and, sometimes, additional information on plant usage and ethnobotany.

The descriptions are concise and use only few technical terms, making information on the species easily accessible, and the figures are of high quality. The guide does not provide an identification key to the species nor specimen-level information but, given the current rate of new species discovery, this kind of information in a static book format would soon be outdated and would be better placed in a more dynamic online database format (e.g., see the *Begonia Resource Centre* available at http://padme.rbge. org.uk/begonia/). The descriptions and figures are detailed enough, however, to aid with species identification.

The guide can serve as a beautiful coffee table book, but it is also scientifically relevant. In the introduction, the authors emphasise that every field trip in Borneo brings to light further new species of *Begonia*, and that the approximately 200 species described from the island probably represent only a fraction, possibly about one third, of the estimated total Bornean *Begonia* species diversity. Given the narrow distributions of the vast majority of Asian *Begonia* species and the rates of land conversion and deforestation in Borneo, this means that many species will likely go extinct before they have been described. In this race against time, the recent precursor papers in the Journal *Sandakania*, in which 60 new Bornean species were described, and *A Guide to Begonias of Borneo*, are key publications. These will stimulate interest in this fascinating group of plants and greatly facilitate further species descriptions and assessments of the conservation status of Bornean *Begonia*.

Daniel C. Thomas

Singapore Botanic Gardens