

BOOK REVIEW

***Etilingera* of Sulawesi.** A. D. Poulsen. Malaysia: Natural History Publications (Borneo). 2012. 286 pp. ISBN 978 983 812 1385. £52 approx.
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This book is the culmination of a two-year Sibbald Trust research fellowship held by its author, allowing him to travel and collect gingers in Sulawesi and to complete a taxonomic revision of the genus *Etilingera* on the island.

The book begins with a short summary and an introduction to the island of Sulawesi, followed by a third chapter entitled 'The Plant'. This chapter is an introduction to the genus *Etilingera* and the anatomy of gingers in general, and gives detailed descriptions of the characters useful for species identification and those used later in the taxonomic account. Most terms are explained, and in the case of the floral and fruit characters are also illustrated. This is invaluable and will enable people who are not experienced in ginger morphology to be able to interpret the descriptions which follow. Furthermore, several ambiguous terms that have been applied in different ways by different botanists, such as inflorescence, are either clarified or new terms are coined and clearly explained. Some of this material is similar to that in '*Etilingera of Borneo*' (Poulsen, 2006), but the inclusion here enables each publication to stand on its own.

Chapter 4, '*Etilingera* in Sulawesi', covers many subjects. The introduction gives a brief taste of the differences in flower colour and number of stilt-rooted plants between Borneo and Sulawesi. A history of previous major expeditions to Sulawesi is then given, including reproductions of both photographs and contemporary maps covering the Sarasin cousins' trips between 1893 and 1903. A third part of the chapter introduces the taxonomic groups applied by Smith (1986) to the *Etilingera* of Borneo and their relevance to the species of Sulawesi. Species affinities with neighbouring islands are described, hinting at possible origins of diversity. Interesting sections on ecology and pollination of *Etilingera* and ethnobotany follow. As in many parts of Indonesia, the forests on Sulawesi are disappearing rapidly owing to population pressures and deforestation. Conservation assessments of the species of *Etilingera* on Sulawesi are given, with 16 species being listed as Data Deficient, 23 as Threatened, 8 as Near Threatened and only one as Least Concern, highlighting the plight of these forests.

In Chapter 5, 'Materials and Methods', the author gives clear accounts of the measurements taken and terminology used in the taxonomic account. It is good to see the process of collecting gingers clearly explained, and important characters stressed, as they can be time-consuming and difficult plants to collect properly.

At the onset of this project, four species of *Etilingera* were known from Sulawesi. Forty-eight taxa are now recognised, including one new name, two new subspecies, six new combinations and a remarkable 36 new species. Detailed descriptions and a

key are given and almost all taxa are illustrated both with the author's own line drawings and with colour photographs. The line drawings are beautiful, meticulous and clear, and will be a fantastic resource for botanists studying this group of plants. Information on the etymology, habitat, ecology and local uses are also provided, reflecting the author's extensive knowledge of and enthusiasm for this group of plants.

If I have a criticism it is that despite dedicating the book to the memory of Alfred Russel Wallace and including a full page of colour maps depicting the changes in the distribution of land and sea over the last 60 million years, the author talks very little about the biogeography of Sulawesi and the possible effects of this on the diversity of gingers on the island. The maps therefore look a little out of place. As this is not a biogeographic account, I would have been tempted to remove them altogether. Another minor point is that given the extremely high quality of most of the illustrations, the graininess of several of the larger photographs sticks out. Some, such as those on pages viii or 32–33, would benefit from being either smaller or being printed at higher resolution.

The careful descriptions and clearly defined terminology ensure that the descriptions will be invaluable to botanists in the field. But the book is more than a taxonomic account, and will appeal to a wide audience. It is visually stunning. Photographs appear on almost every other page, from the humorous and somewhat sinister electron-micrographs of stigmas, to photographs of the extraordinary *Etilingera mucida*, in which the flowering part of the inflorescence is surrounded by a thick layer of slime. Gingers are a charismatic group and the clear, enthusiastic writing and beautiful illustrations of 'Etilingera of Sulawesi' mean it will have a place not only on the bookshelves of taxonomists and horticulturalists, but also on the coffee tables of the interested public.

REFERENCES

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