Book reviews

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Cotton E., Borchsenius F. & Balslev H.: A revision of *Axinaea* (*Melastomataceae*). – København: Det Kongelige Dankse Videnskabernes Selskab (The Royal Danish Academy of Sciences and Letters), 2014. – Scientia Danica, Series B, Biologica, vol. 4. – ISBN 978-87-7304-385-1; ISSN 1904-5484. – 120 p., 74 line drawings, maps, and colour photos; paperback. – Price: DKK 200 (can be purchased by contacting the publisher: publ@royalacademy.dk; see http://www.royalacademy.dk/da/Publikationer/Scientia-Danica/Series-B/Axinaea).

Axinaea is a mostly Andean genus of *Melastomataceae* that recently received attention because of its unusual mode of bird-pollination (Dellinger & al. 2014). Each of the eight or ten stamens bears a several millimeter-large bulbous outgrowth that contrasts in colour with the rest of the flower and that tempts birds to pick at it. When they take the bait, they receive a blast of pollen from the bellows-like anthers. Other *Melastomataceae* also have a bellows system of pollination, but they all rely simply on pressure against the stamens applied by beaks, paws, or legs from a variety of pollinators, but none feeding on connective tissues. Species of *Axinaea* so far are the only flowering plants in which birds, plucking at the stamens one by one, are the regular pollinators of a plant with poricidal anthers.

The visually striking flowers of many species of *Axinaea* are illustrated in a revision of the genus by Elvira Cotton, Finn Borchsenius and Henrik Balslev, published by The Royal Danish Academy of Sciences and Letters as volume 4 in its series Scientia Danica, Series B, Biologica. Based on the study of 700 collections from all relevant herbaria, this complete revision accepts 41 species in the genus, eight of them new. It provides a key to the species, detailed descriptions, distribution maps, lists of specimens examined, and concise discussion of each species where needed. The work is illustrated by colour photographs of living plants, focusing on their flowers, and beautiful line drawings by Bruno Manara. *Axinaea* grows in montane forest at 1100–3800 m, and the still relatively few collections, eight new species, and few synonymous names highlight the poor status of our knowledge of the Andean mountain flora, even today. This, together with the difficulty of isolating high-quality DNA from herbarium specimens of *Melastomataceae*, also explains why there is still no molecular-phylogenetic study focusing on the tribe *Merianieae* to which *Axinaea* and its close relative *Meriania* belong (based on sequences from two species of *Axinaea* and three of *Meriania*, the two genera may not be mutually monophyletic; Michaelangeli & al. 2004, 2008).

Regardless of the insights that may come from future phylogenetic studies, the "clean" species circumscriptions and information on the geographic range of each species will stand. The only thing I missed from this near-perfect work is a list of the accepted species with their author names. I was looking for a particular species described by Gustavo Lozano, but had to leaf through the entire work (120 printed pages) to find it. The publication is beautifully produced and will be welcomed by botanists and ecologists focusing on the Andean flora.

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