New Combinations in Chinese Polyspora (Theaceae)

Bruce Bartholomew
Botany Department, California Academy of Sciences, 875 Howard Street, San Francisco, California 94103-3009, U.S.A. bbartholomew@calacademy.org

Ming Tienlu
Kunming Institute of Botany, Chinese Academy of Sciences, Heilongtan, Kunming, Yunnan 650204, People’s Republic of China

ABSTRACT. For the Theaceae treatment in the Flora of China, volume 12, it was found that several specific epithets have not yet been validly transferred from Gordonia Ellis to Polyspora Sweet ex G. Don. In this article the following five species are transferred from Gordonia to Polyspora: Polyspora chrysandra (Cowan) Hu ex B. Bartholomew & T. L. Ming, Polyspora hainanensis (Hung T. Chang) C. X. Ye ex B. Bartholomew & T. L. Ming, Polyspora longicarpa (Hung T. Chang) C. X. Ye ex B. Bartholomew & T. L. Ming, Polyspora speciosa (Kochs) B. Bartholomew & T. L. Ming, and Polyspora tonkinensis (Pitard) B. Bartholomew & T. L. Ming. Three species, Gordonia axillaris Roxburgh ex Ker Gawler, Gordonia tonkinensis Pitard, and Thea speciosa Kochs, as well as the one variety Gordonia axillaris var. acuminata E. Pritzel, are lectotypified.

Key words: China, Gordonia, Polyspora, Theaceae.

Recent molecular evidence has shown that the Chinese species often treated as Gordonia Ellis are not closely related to the North American species G. lasianthus (L.) Ellis, the type species of the genus, and should be treated as a different genus (Prince & Parks, 2001; Yang et al., 2004). On the basis of priority, the generic name that must be used for these species is Polyspora Sweet ex G. Don. Although several of the Chinese species have been treated in the literature as Polyspora Sweet ex G. Don, the recognized taxa only the combination Polyspora axillaris (Roxburgh ex Ker Gawler) Sweet ex G. Don has been validly made. In order to treat the Chinese species of Polyspora in the Flora of China, volume 12, five combinations must be validly made. The six species of Polyspora that occur in China include the following:


This species occurs in forests and thickets from 100 to 800 (±2300) m in Guangdong, Guangxi, Hainan, and Taiwan, China (Chang, 1998), and Vietnam (Ho, 1991).

There is no type specimen for this species, so the plate in the original protologue is chosen as the lectotype.


This species occurs in forests and thickets from 1100 to 2400 m in Guangdong, Guangxi, Hainan, and Taiwan, China (Chang, 1998; Ming, 1997). H. H. Hu proposed the combination Polyspora chrysandra (Hu, 1972) but did not include the basionym reference citation.


This species occurs in forests from 300 to 1500 m in Hainan, China (Chang, 1998). C. X. Ye proposed the combination Polyspora hainanensis (Ye, 1990) but did not include the basionym reference citation.


J. Chen 2-77 (holotype, KUN).

This species occurs in forests from 1000–1700 to 2500 m in southeastern to southwestern Yunnan China, northern Myanmar, northeastern Thailand, and northern Vietnam (Chang, 1998; Keng, 1972; Ming, 1997). Keng (1972) recorded Gordonia axillaris as occurring in northeastern Thailand, which was before G. longicarpa had been named, but from his description the plant is clearly Polyspora longicarpa.  

C. X. Ye proposed the combination Polyspora longicarpa (Ye, 1990) but did not include the basionym reference citation.


This species occurs in forests from 1200 to 2000 m in northern Guangxi, Guizhou, southern to southwestern Sichuan (including the Chongqing Municipality, formerly part of Sichuan), and Yunnan China (Chang, 1998).

The only specimen cited by Kochs (1900) for Thea speciosa was “Bock & von Rosthorn 454.” Although the holotype at B is lost, there is compelling evidence that 454 is an error, and the number in the protologue should have been 754. By checking the dates and collection numbers cited in Diels (1900–1901) it is evident that Bock & von Rosthorn numbers between at least 192 and 707 were collected in August 1891. In the protologue for Thea speciosa, Kochs stated that the collection was made in September, whereas Bock & von Rosthorn numbers for September 1891 started with 708. The holotype of Thea speciosa was not only collected on the same date, but also at the same Chinese collection locality (with minor transcription differences in spelling) as Bock & Rosthorn 754. Furthermore, in the treatment for Simarubaceae by Pritzel in Diels (1900–1901), Bock & von Rosthorn 454 is identified as Picrasma ailanthoides (Bunge) Planchon. Unfortunately, no archival information that might throw additional light on this matter is available at B (Robert Vogt, pers. comm.), GZU (Anton Drescher, pers. comm.), or O (Per Sunding, pers. comm.). Quite likely collection number 754 was misread as 454 either when the handwritten label on the specimen was transcribed or possibly when a handwritten manuscript was set in type.

In flower Polyspora and Camellia (Thea) are very similar, and this no doubt was why Kochs originally placed the flowering specimen of Bock & von Rosthorn 754 in Thea. However, because the fruit of Polyspora and Camellia (Thea) are very different, once it was realized that the fruiting specimen of Bock & von Rosthorn 147 was the same species, it would have been clear that Thea speciosa was in the wrong genus. In the treatment of Theaceae in Die Flora von Central-China (Diels, 1900–1901), Pritzel and Kochs realized that T. speciosa should be treated as a Gordonia. This treatment in Diels’s article was by both Kochs (who authored Thea) and Pritzel (who authored the rest of the family). Pritzel did not reduce Thea speciosa to a variety of Gordonia axillaris, but rather selected a different infraspecific epithet, based his Gordonia axillaris var. acuminata E. Pritzel on two syntypes (one of which was the holotype of T. speciosa), and gave T. speciosa Kochs as a synonym for his new variety. However, at the specific level T. speciosa has priority, so Pritzels specific epithet speciosa must be used when treating this taxon as a species. Because the holotype of T. speciosa and both syntypes of G. axillaris var. acuminata have been destroyed, it is appropriate to lectotypify T. speciosa on the only known isotype and to lectotypify G. axillaris var. acuminata on one of the extant fruiting isosyntypes.

C. X. Ye proposed the combination Polyspora kwangsiensis (Ye, 1990) but did not include the basionym reference citation and misspelled the specific epithet as “gwangsiensis.” However, this combination is not being validated here because the species is now reduced to a synonym. H. T. Chang proposed the species Gordonia szechuanensis (Chang, 1983) for what is the same species as Po-
Lyssora speciosa, but he did not supply Latin description or diagnosis.


This species occurs in forests and thickets from 1200 to 2100 m in southern Guangxi, southeastern Yunnan, China, and northern Vietnam (Ming, 1997).

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Literature Cited


