Phytotaxa 236 (3): 291–295
www.mapress.com/phytotaxa/

Correspondence

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

http://dx.doi.org/10.11646/phytotaxa.236.3.12

Piper peltatifolium, a new species of Piperaceae from Hainan, China

CHAO-YUN HAO[1,2], YUN-HONG TAN[3], LI-SONG HU[1,2], LE-HE TAN[1,2], HAI-PING CHEN[1,2], XIAO-WEI QIN[1,2], GANG WU[1,2] & HUA-SONG WU[1,2]*

[1] *Spice and Beverage Research Institute, Chinese Academy of Tropical Agricultural Sciences, Wanning, Hainan 571533, China.*
[2] *Key Laboratory of Genetic Resources Utilization of Spice and Beverage Crops, Ministry of Agriculture, Wanning, Hainan 571533, China.*
[3] *Center for Integrative Conservation, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Menglun, Mengla, Yunnan 666303, China.*
**Author for correspondence. E-mail: 13807622912@163.com*

Piper peltatifolium, a new species of Piperaceae from Hainan, China, is here described and illustrated. The new species is morphologically similar to *P. hongkongense*, but the former can be easily distinguished by the combination of characteristics: trophophyll blades peltate and subleathery with nonbranched hairs; leaves with longer sheaths; stamens usually only two; anthers ovoid and shorter than filaments; ovaries ellipsoid to ovoid; stigmas 3 or 4, or rarely 5; bracts suborbicular, sessile, and adnate to rachis; and drupes slightly hispidulous.

Key words: diversity, morphology, taxonomy, tropical flora

Piper Linnaeus (1753: 28) is the largest genus of the Piperaceae family, comprising approximately 1,050 species, mainly distributed in the tropics (Mabberley & David 2008), and is one of the most diverse lineages among basal angiosperms (Tebbs 1993, Soltis *et al.* 1999). Distinctive characteristics of *Piper* include swollen stem nodes and minute, usually unisexual flowers compacted together on a fleshy rachis. Its flowers lack perianth and consist only of the male and female reproductive parts, which are subtended by one to three floral bracts. The number of stamens varies from 3 to 12 (Suwanphakdee & Chantaranothai 2014). The anther is distinguished by two or four thecae, with longitudinal or transverse dehiscence. Fruits of the majority of *Piper* are drupes, whereas only *P. umbellatum* Linnaeus (1753: 30) bears nutlets (Suwanphakdee 2012). Asian taxa of the Piperaceae have been studied in numerous publications (Wallich 1824–1849, Blume 1826, Hooker 1887, De Candolle 1910, 1912, 1923, Ridley 1924, Backer & Bakhuizen van den Brink 1963, Long 1984, Huber 1987, Gardner 2006, Suwanphakdee *et al.* 2006, 2008, 2011, 2012, 2014). More than 60 species of *Piper* can be found in China, of which half are endemic (Gilbert & Xia 1999, Cheng *et al.* 1999, Gajurel *et al.* 2001, Hao *et al.* 2012).

Floristic surveys of *Piper* in Hainan, China between 2011 and 2013 yielded a specimen of *Piper* that morphologically did not match any of the known species from China because this sample exhibited distinct peltate trophophyll blades and puberulous abaxial leaf blade surfaces. On the basis of a detailed examination of the morphological characteristics of this plant and its possible relatives (Gilbert & Xia 1999, Cheng *et al.* 1999, Gajurel *et al.* 2001), as well as specimens of different herbaria (PE, IBK, IBSC, KUN, HITBC, VNM, K, E, P, A) (Thiers 2015), we conclude that it is a species new to science, which we hereby describe and illustrate.

Taxonomic treatment

Piper peltatifolium C. Y. Hao, H. S. Wu & Y. H. Tan, *sp. nov.* (Figs. 1–2)

Similar to *P. hongkongense* De Candolle (1868: 347) but can be distinguished by the following characteristics: trophophyll leaf blades peltate; leaves subleathery with non-branched hairs; stamens usually only two; anthers ovoid and shorter than filaments; ovary ellipsoid to ovoid; stigmas 3 or 4, and rarely 5; bracts suborbicular, sessile, and adnate to rachis; and drupes slightly hispidulous.

Type:—CHINA. Hainan: Wanning County, Sifang Mountain, moist place at mountain stream sides and under evergreen broad leaved forests, ca. 305 m, 18°43’0.15”N, 110°4’16.94”E, 8 October 2012, *Chao-Yun Hao 2012089* (holotype HITBC!; isotype IBSC!, HITBC!).

Accepted by Hai He: 29 Oct. 2015; published: 1 Dec. 2015