

VALIDATION OF *ATALANTIA FONGKAICA* AND  
*FORTUNELLA BAWANGICA* (RUTACEAE)

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ABSTRACT. The two names proposed by C. C. Huang in 1991, *Atalantia fongkaica* and *Fortunella bawangica*, were not validly published because the herbarium in which the types were deposited was not specified. These names are validated here.

Key Words: *Atalantia*, China, *Fortunella*, nomenclature, Rutaceae

According to Article 37.7 of the *International Code of Botanical Nomenclature* (ICBN, see McNeill et al. 2006), the name of a new species or infraspecific taxon published on or after 1 January 1990 is not validly published if “the single herbarium or collection or institution in which the type is conserved” was not indicated. Two names, *Atalantia fongkaica* C.C. Huang and *Fortunella bawangica* C.C. Huang, were not validly published because where the type specimens were conserved was not indicated in the protologue. Unfortunately, this problem was not discovered in the Chinese edition of *Flora Reipublicae Popularis Sinicae* (Huang 1997) and in the English and updated edition of the *Flora of China* (Zhang and Hartley 2008; Zhang and Mabberley 2008). To enable their formal use, these names are herein validated with the herbarium now specified.

Huang (1991) did include Latin diagnoses and descriptions, which constitutes the validating reference (i.e., Article 36.1). Therefore, according to the Article 46.2, C. C. Huang is the author of these names *Atalantia fongkaica* and *Fortunella bawangica*.

***Atalantia fongkaica*** C.C. Huang, *sp. nov.* Validated by a full and direct reference to the Latin diagnosis associated with *Atalantia fongkaica* C.C. Huang, *Guihaia* 11: 5. 1991. TYPE: CHINA. Guangdong: Fengkai County, Qixing Town, in valley with thick forest, 26 May 1974, *Fengkai Exped. 4882* (HOLOTYPE: IBSC 0001858).

*Atalantia fongkaica* is known only from the type locality where it occurs in forests by rivers in valleys below 200 m elevation. This species is distinguished from other Chinese *Atalantia* in having unifoliate leaves, larger and ellipsoid to ovoid mature fruits (ca.  $3.8 \times 3$  cm), and larger and smooth seeds ( $1.5\text{--}1.8 \times 1\text{--}1.3$  cm).

***Fortunella bawangica*** C.C. Huang, *sp. nov.* Validated by a full and direct reference to the Latin diagnosis associated with *Fortunella bawangica* C.C. Huang, *Guihaia* 11: 8. 1991. TYPE: CHINA. Hainan: Bawangling, alt. 1200 m, 14 Feb 1988, C. C. Huang 816 (HOLOTYPE: IBSC 0001856).

In *Flora of China*, all Chinese *Fortunella* except *F. bawangica* were transferred to *Citrus* (Zhang and Mabberley 2008), because they considered *Fortunella* to be a taxonomical synonym of *Citrus*. Whether this treatment is appropriate remains to be verified. Zhang and Mabberley (2008) noted that *F. bawangica* was similar to *F. japonica* (= *Citrus japonica*), from which it differs by its pear-shaped fruit; this feature also distinguishes *F. bawangica* from all other species of *Fortunella* (Huang 1991). According to Zhang and Mabberley, *F. bawangica* can be treated as a species or as a geographical race of *F. japonica*. We accept the former treatment alternative.

ACKNOWLEDGMENTS. This study was supported by a grant from the Ministry of Science and Technology of China (No. 2005DKA21006). We are grateful to an anonymous reviewer for valuable comments and suggestions.

#### LITERATURE CITED

- HUANG, C. C. 1991. Materials for Chinese Rutaceae and Fagaceae. *Guihaia* 11: 5–10.
- . 1997. Rutaceae, pp. 1–213. In: C. C. Huang, ed., *Flora Reipublicae Popularis Sinicae*, Vol. 43 (2). Science Press, Beijing, China.
- MCNEILL, J., et al. (2006). International Code of Botanical Nomenclature (Vienna Code) adopted by the Seventeenth International Botanical Congress Vienna, Austria, July 2005. *Regnum Vegetabile* 146: 1–568.
- ZHANG, D. X. AND T. G. HARTLEY. 2008. *Atalantia* (Rutaceae), pp. 88–90. In: Z. Y. Wu, P. H. Raven, and D. Y. Hong, eds., *Flora of China*, Vol. 11. Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis, MO.
- AND D. J. MABBERLEY. 2008. *Citrus* (Rutaceae), pp. 90–96. In: Z. Y. Wu, P. H. Raven, and D. Y. Hong, eds., *Flora of China*, Vol. 11. Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis, MO.