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Begonia tandangii (Begoniaceae, section *Baryandra*), a new species from Luzon Island, the Philippines

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Abstract

We describe *Begonia tandangii*, a new species of *Begonia* sect. *Baryandra* from the Sierra Madre Mountain Range of Luzon Island, the Philippines. *Begonia tandangii* has a close resemblance to *B. fenicis* in gross morphology, differing in having leaf margin sparsely fringed with minute hairs (vs. glabrous or with minute hairs only on teeth) and capsules with broadly-ovate outline and an acuminate apex (vs. capsules with broadly-obovate outline and a rounded to truncate apex). Phylogenetic analyses of Philippines species of sect. *Baryandra* based on ITS sequences revealed that *B. tandangii* was clearly separated from *B. fenicis*. *Begonia tandangii* is currently known only from the type locality in a coastal forest of Baler, Aurora Province, which is in the neighborhood of Aurora Memorial National Park.

Key words: *Begonia*, Begoniaceae, ITS phylogeny, Philippines, sect. *Baryandra*, sect. *Diploclinium*, Sierra Madre Mountain Range

Introduction

The genus *Begonia* Linnaeus (1753: 1056), (Begoniaceae, e.g., Doorenbos *et al.* 1998) comprises more than 1,500 species (Kiew 2005, Tebbitt 2005). The Philippines, where more than 100 species are recorded (Golding & Wasshausen 2002), is one of the centers of *Begonia* species diversity in the world (Rubite 2012). Philippine begonias are assignable to three sections, namely, sect. *Baryandra* A. de Candolle (1859: 122), sect. *Petermannia* (Klotzsch 1855: 74) A. de Candolle (1859: 128), and sect. *Platycentrum* (Klotzsch 1855: 123) A. de Candolle (1859: 134) (Rubite 2012, Rubite *et al*. 2013). *Begonia* sect. *Baryandra* includes ca. 50 species, having its center of diversity in the Philippines but also with a few species in Borneo and New Guinea (Rubite *et al*. 2013). The section, comprising species previously included in sect. *Diploclinium* (Lindley ex. R. Wight 1852: 9) A. de Candolle (1859: 129), has recently been revised (Hughes 2008, Rubite & Madulid 2009, Hughes *et al*. 2010, 2011, Rubite 2012, Rubite *et al*. 2013). However, further field survey in the Philippines may discover new species because *Begonia* species generally have narrow distribution ranges and the Philippines has not been botanically fully explored (Rubite & Madulid 2009).

The Sierra Madre is a chain of mountains in the eastern coast of north and central Luzon Island (14°–19° N; Fig. 1), where the largest contiguous forest in the Philippines is found. In the south-central part of the mountain range, we discovered an unknown *Begonia* which resembles *B. fenicis* Merrill (1908: 421) of sect. *Baryandra* in gross morphology, green (neither purple-brown nor purplish-red) and non-peltate leaves, and five-tepalled pistillate flowers. *Begonia fenicis* has been reported from islets north of Luzon Island but not from Luzon Island (Merrill 1908, Hatusima 1975, Chen 1993). Basing on detailed morphological and molecular phylogenetic analyses, we confirmed that the unknown *Begonia* is a new species of sect. *Baryandra*, which is named *Begonia tandangii* C.-I Peng & R.Rubite (below).

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