Begonia hongkongensis (Begoniaceae), a new species from Hong Kong

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Begonia hongkongensis F.W. Xing sp. nova (Begoniaceae) is described and illustrated. It is most similar to B. tsoongii, but differs primarily in its horizontal rhizome, bigger leaves with long-attenuate apices and irregularly shallowly 1–4-lobed margins, styles with only basal parts connected, and capsules with a longer pedicel and wings. It is known only from Jiujing Mountain in Hong Kong.

Key words: Begonia, Begoniaceae, new species, taxonomy

Begonia is the largest genus of Begoniaceae and includes about 1400 species widely distributed in tropical and subtropical areas, especially in central and southern America (Barkley et al. 1974, Smith et al. 1986, Doorenbos et al. 1998, Ku 1999). There are about 150 species native to China, with the area stretching from SE Yunnan to SW Guangxi having the highest diversity of species (Ku 1999, Shui 2002, Shui et al. 2002, Tebbitt et al. 2002, Tian et al. 2002).

The Hong Kong Special Administrative Region of the People’s Republic of China has a total land area of 1095 km² and is situated on the country’s southeast coast, adjacent to Guangdong Province. Although urban development in Hong Kong was very rapid in the past decades, some vegetation types, such as south subtropical evergreen broad-leaved forest (“fun shui” woods) are conserved well by local villagers (Xing et al. 1999). During our biodiversity survey of Hong Kong, we collected a peculiar specimen of Begonia, growing in a valley of Jiujing Mountain (ca. 200 m alt.). Upon critical study it turned out to be a species new to science. With the addition of this species the flora of Hong Kong contains four species of Begonia.

Begonia hongkongensis F.W. Xing, sp. nova (section Platycentrum) (Figs. 1 and 2)

Species affinis B. tsoongii C.Y. Wu, sed rhizomate elongato, foliis basalibus 7–13.6 cm longis, 2.3–4.5 cm latis, apex longi-attenuatis 2.3–3.3 cm longis, margine irregulariter leviter 1–4-lobatis, foliis caulinis presentibus, inflorescentiis axillaribus, pedicellis capsularum longioribus, stylis 2, non nisi prope basin connatis, alis majoribus et longioribus differt.

Type: China. Hong Kong, Tunmen, Jiujing Mountain, alt. 150–350 m, in the ravine, on moist rocks, 11.XII.1997 Xing et al. 9972 (holotype IBSC; isotype, two sheets, IBSC). — Paratype: China. Hong Kong, Kadoorie Farm and Botanic Garden, introduced from Hong Kong, Shenjin, Dalan Coun-
Rhizomatous perennial herbs; rhizome horizontal, 1–4.3 cm long, ca. 3 mm in diameter, rooting at nodes covered with brown, membranous, persistent stipules; stem 10.3–21 cm long, sulcate. Basal leaves 5–6, oblong-ovate to rhombic-ovate, slightly asymmetric, 7–13.6 × 2.3–4.5 cm, apex long-attenuate 2.3–3.3 cm long, base cuneate to broad-cuneate, slightly oblique, margin irregularly and remotely serrate and shallowly 1–4-lobed, adaxial surface glabrous, with sparse, brown, short hairs along the veins; veins 5–6 palmate, prominent on both surfaces, secondary veins clearly visible; petiole 5.2–9.4 cm, with sparse, remote, short hairs near apex; stipule persistent, membranous, lanceolate, 1–2 cm long, 2–2.5 mm wide; cauline leaves 2–3, similar to basal leaves in outline, 4.5–9 × 1.7–5.3 cm; petiole 2.8–8.2 cm long, stipule membranous, lanceolate, ca. 8.5 × 3 mm, apex aristate, ca. 2 mm long, glabrous. Inflorescence a dichotomous cyme, axillary, unisexual; bract membranous, long-ovate, ca. 8 mm long, glabrous. Peduncle ca. 5 cm long at fruiting, striate and glabrous; stamine flowers 2–4, pedicel 7–14 mm long, perianth segments 4,
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white, exterior 2 larger, broadly ovate or oblong, ca. 10 × 9 mm, apex rounded, base shallowly cordate, interior 2 smaller, ovate, ca. 8 × 4 mm, apex acute; stamens numerous; filaments free, 1.1–1.4 mm long, attached to a torus, anthers oblong or obovate, 1–1.3 mm long; carpellate flowers: pedicel pinkish white, 2–2.5 cm long, tepals 5, white, 0.7–1.2 × 0.6–1.2 cm, apex rounded or repand, with a little pinkish spot; ovary ovate, 2-locular, styles 2, ca. 3 mm long, yellow, only basal part connate, stigma spirally twisted like a corkscrew. Infructescence often 2–4-fruited; peduncle 10.2–16 cm long, striate and glabrous; capsules nodding, 2-locular, oblong in outline, 18–29 mm long, ca. 17 mm in diameter, subglabrate, wings 3, unequal, the larger one long-ligulate, 16–28 mm long, base 8.5 mm wide, apex obtuse, 6 mm wide with clear striae, glabrous, the remaining 2 subequal, 7–10 mm long, pedicels 3–5.8 cm long. Seeds numerous, oblong, light-brown. Flowering from July to September; fruiting from October to December.

**ECOLOGY AND DISTRIBUTION.** Grows on moist rocks by stream in evergreen secondary forests on granite mountains at 150–350 m above sea level. It is associated with *Clerodendrum cytophyllum*, *Blechnum orientale*, *Litsea rotundifolia*, *Scutellaria formosana*, *Commelina paludosa*, *Arundinaria cantori*, *Caesalpinia crista*, *Pterolobium punctatum*, *Diospyros vaccinioides*, *Colysis elliptica*, etc. Known only from the type locality in Hong Kong.

*Begonia hongkongensis* resembles *B. tsoongii* (Wu & Ku 1995) from Guangxi Province in having oblong-ovate to rhombic-ovate leaves that are asymmetric, numerous stamens, and oblong capsule. A morphological comparison of *B. hongkongensis* and *B. tsoongii* is given in Table 1.
Acknowledgements

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References


Table 1. Morphological differences between Begonia hongkongensis and B. tsoongii.

<table>
<thead>
<tr>
<th>Diagnostic characters</th>
<th>B. hongkongensis</th>
<th>B. tsoongii</th>
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</thead>
<tbody>
<tr>
<td>Rhizome</td>
<td>horizontal</td>
<td>erect</td>
</tr>
<tr>
<td>Basal leaves</td>
<td>7–13.6 cm long, 2.3–4.5 cm wide, apex long-caudate 2.3–3.3 cm long, margin irregular, remotely serrate and shallowly 1–4-cleft</td>
<td>6–6.5 cm long, 1.9–3 cm wide, apex acuminate or caudately acuminate, margin argute, remotely and shallowly serrate absent</td>
</tr>
<tr>
<td>Cauline leaves</td>
<td>present, 4.5–9 cm long, 1.7–5.3 cm wide</td>
<td></td>
</tr>
<tr>
<td>Staminate flowers</td>
<td>pedicel 7–14 mm long, perianth segments 4, exterior 2 larger, ca. 10 mm long, 9 mm wide, apex suborbicular</td>
<td>pedicel 4–12 mm long, perianth segments 4, exterior 2 larger, ca. 8 mm long, 6 mm wide, apex orbicular</td>
</tr>
<tr>
<td>Carpellate flowers</td>
<td>tepals 5; styles ca. 3 mm long, only basal part connected</td>
<td>tepals 4–5(?); styles ca. 2 mm long, mostly connected</td>
</tr>
<tr>
<td>Capsule</td>
<td>larger wing 16–28 mm long, base 8.5 mm wide, other two narrower, 7–10 mm long; pedicel 3–5.8 cm long</td>
<td>larger wing ca. 13 mm long, base ca. 10 mm wide, other two narrower, 2–3 mm long; pedicel ca. 1.6 cm long</td>
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