

Three new species of *Begonia* sect. *Platycentrum* from Southwestern China

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ABSTRACT. After new field observations and a review of literature and herbarium specimens, three new species of *Begonia* sect. *Platycentrum* from Southwestern China are described and illustrated here: *Begonia zhuhaiensis* D.K.Tian and *B. shunanensis* D.K.Tian from Sichuan Province, and *B. qianchuanensis* D.K.Tian & Z.L.Chen from Guizhou and Sichuan Provinces. The new species are morphologically compared with allied species, and their conservation status is assessed according to the IUCN Red List Categories and Criteria.

Keywords. Conservation status, morphology, new taxon, plant diversity

Introduction

China is highly rich in diversity of *Begonia* L. (Tian et al., 2018), and many new taxa and new records have been discovered in recent years (Ding et al., 2022, 2023; Feng et al., 2022, 2023; Tian et al., 2021, 2024a, 2024b; Wang et al., 2024; Xi et al., 2025; Zhou et al., 2024). Southwestern China (including Yunnan, Sichuan, Chongqing, Guizhou and Xizang) harbours the largest number of begonia species in this country. However, after the *Flora of China* was published in 2007, only two new species (*B. zunyiensis* S.Z.He & Y.M.Shui; *B. auritalata* D.K.Tian & H.J.Wei) were discovered from Guizhou Province, one species (*B. qingchengshanensis* H.Z.Li et al.) from Sichuan Province, and another (*Begonia jinyunensis* C.-I Peng et al.) from Chongqing municipality. In order to better understand the diversity of Chinese begonias, we conducted several field surveys in Guizhou and Sichuan in the past ten years, and found some begonias which are new to science, including two new species (*Begonia zhuhaiensis* D.K.Tian, *B. shunanensis* D.K.Tian) from Sichuan, and one new species (*B. qianchuanensis* D.K.Tian & Z.L.Chen) distributed in both Guizhou and Sichuan.

All three new species belong to *Begonia* sect. *Platycentrum*, which typically have a rhizome, unequally 3-winged capsule, and pistillate flowers with five tepals,

two styles and stigmas, and ovary with axile, bilamellate placentation. The new species are morphologically compared with their allied species. Their conservation status is assessed according to the IUCN guidelines (IUCN Standards and Petitions Committee, 2024) After adding these three new species, the number of species in *Begonia* sect. *Platycentrum* reaches 117, accounting for 42.7% of the Chinese begonias. The discovery of these new *Begonia* species has not only increased the diversity of Chinese *Begonia* (up to 274 species so far), but also indicates that further field surveys on *Begonia* are necessary for Guizhou and Sichuan Provinces.

Taxonomy

1. *Begonia zhuhaiensis* D.K.Tian, sp. nov.

The new species is remarkably different from any species in *Begonia* sect. *Platycentrum* from China and its neighbouring countries, and somewhat resembles *B. ruboides* C.M.Hu ex C.Y.Wu & T.C.Ku in *B.* sect. *Diploclinium* in its long creeping rhizome, and similar leaf shape and size, but differs by its green (vs dark green) leaves, pinkish white to red flowers (vs pure white), 2 (vs 3) locular ovary, 2 (vs 3) styles and the later flowering time (June–July vs March–May); in addition, the habitats of two species are different: *B. ruboides* grows on soil while *B. zhuhaiensis* grows on moist rocky cliff surfaces. – TYPE: China, Sichuan Province, Changning County (长宁县), Zhuhai Town (竹海镇), Zhuhai Resort (竹海风景区), near waterfall in valley, 28°27'35.48"N 104°58'57.67"E, 510 m, 16 June 2017 (flower), *Daike Tian & Cehong Li TDK3175* (holotype CSH [CSH0149926]; isotypes CSH [CHS0149924, CSH0149925, CSH0149927]). (Fig. 1)

Herb, perennial, monoecious, 1–2 cm tall, growing along moist rocky cliff by stream under forest. **Rhizome** creeping, up to c. 30 cm long, 2–3 mm thick, dark red to greenish red, highly branched, often growing in a zigzag pattern, internodes 3–10 mm long, without aerial stems or rarely with one short internodal stem at anthesis. **Petioles** basal, reddish green or brown, unspotted, 1–7(–11) cm long, 1–4 mm thick, densely covered with pinkish or red hairs 1–4 mm long. **Leaf blades** oval or ovate, 1.2–6.3 × 0.9–5 cm, slightly longer than wide or nearly equal, broad side 0.4–2.9 cm wide and narrow side 0.3–2.1 cm wide, slightly asymmetric, pinkish at the young stage, turning green when mature, densely covered with red hairs, adaxially green and unspotted, smooth, abaxially purplish red or light green with deep red veins; venation palmate, primary veins 6–8, clear, dark red; adaxial veins slightly convex and abaxial ones prominently raised; veins densely covered with red hairs up to 3 mm long, with the longest hairs along the midrib; apex bluntly rounded to acute, margin green, finely serrate or nearly wavy, appearing uneven; base cordate, nearly overlapping to slightly overlapping. **Inflorescence** 1 per rhizome branch, 3–11 cm long, with 3(–5) flowers; axis red, smooth, 1.8–8 cm long, 1–2 mm thick; bracts red, smooth, obovate-lanceolate, 4–5 × 1–2 mm. **Flowers** often white with red tips, occasionally pale red. **Staminate flower** 15–34 × 15–30 mm; pedicel red or white, smooth, 8–21 mm long, 0.5–1 mm thick; tepals 4; outer tepals 2, white with pinkish tips, pink or pale red, obovate,

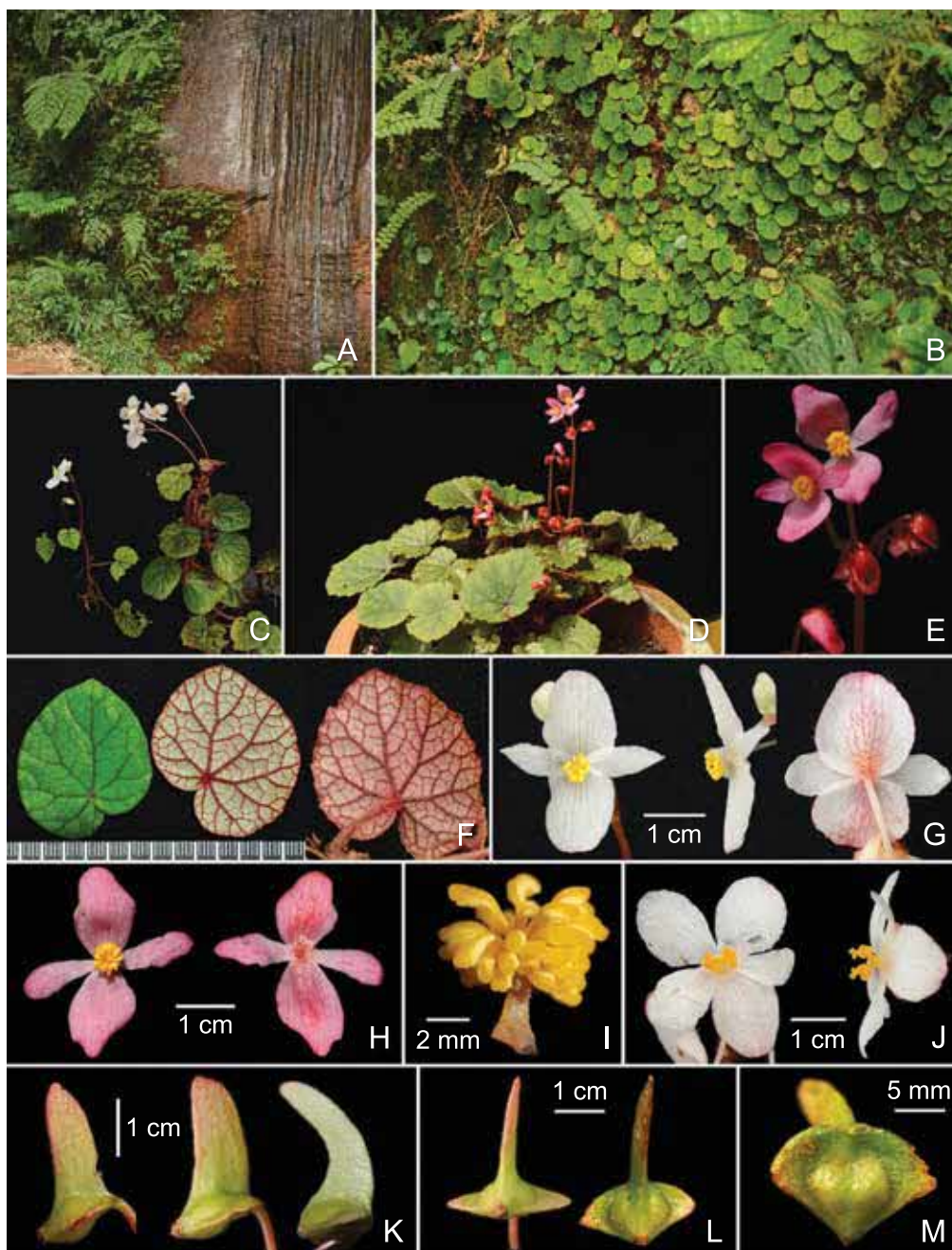


Fig. 1. *Begonia zhuhaiensis* D.K.Tian. **A, B.** Habitat. **C.** Habit. **D.** Cultivated plant in flower. **E.** Inflorescence showing male flowers. **F.** Leaf blade showing two surfaces. **G.** Different views of white staminate flower. **H.** Front and back views of red staminate flower. **I.** Androecium showing fused filament column. **J.** Front and side views of pistillate flower. **K.** Side view of fruits showing different shapes of the dorsal wing. **L.** Front view of fruits. **M.** Adaxial view of fruit showing ovary and lateral wings. (Photos: D.-K. Tian)

broad-ovate, or obovate-lanceolate, $8\text{--}17 \times 7\text{--}13$ mm, nearly smooth or sparsely covered with red hairs up to 2 mm long near the central abaxial surface, longitudinal veins inconspicuous or distinct, adaxial surface nearly flat, similar thickness for the central area and the surrounding part, apex bluntly rounded; inner tepals 2, white to pale red, smooth, obovate-lanceolate, $8\text{--}15 \times 3\text{--}7$ mm, apex bluntly rounded; androecium yellow, capitate, radially symmetrical, $2\text{--}4 \times 2\text{--}5$ mm, stamens (16–)26–62, filament 1–2 mm long, androecial column 1–3 mm long, anther 0.8–1 mm long. **Pistillate flower** $15\text{--}26 \times 12\text{--}17$ mm; pedicel pinkish or nearly red, smooth, 5–11 mm long, 0.5–1 mm thick; tepals 5 (rarely 3 or 4), unequal, entire and glabrous; outer tepals 2, white with pinkish apex to red, obovate, $7\text{--}13 \times 5\text{--}9$ mm; inner tepals 3, white or pale red, obovate to obovate-lanceolate, $5\text{--}10 \times 2.5\text{--}5(8)$ mm, the innermost being the smallest; gynoecium (excluding ovary) 2–4 mm long, stigmas $3\text{--}4 \times 2\text{--}2.5$ mm; styles 2, free, c. 1 mm long, stigmas twisted 1.5–2 turns each side; ovary light green, glabrous, placentation axile, bilamellate, 2-loculed. **Fruit:** stalk red, smooth, 8–17 mm long, 0.8–1 mm thick; capsule green, smooth, $5\text{--}7 \times 4.5\text{--}8$ mm; wings 3, unequal, abaxial wing green with pinkish upper portion, nearly perpendicular to fruit, triangular-rectangular, $9\text{--}23 \times 4\text{--}8$ mm; lateral wings falcate, $3\text{--}5 \times 5\text{--}8$ mm.

Distribution. Very small populations of this species are currently known only from two relatively near places in the Shunan Zhuhai Resort of Changning County in Sichuan Province (Fig. 2).

Ecology and phenology. It grows on wet rock surfaces usually with moss near creeks under forest on mountainsides or in valleys, and flowers from June to July and fruits from July to September.

Etymology. The epithet “zhuhaiensis” of the new species is based on Zhuhai (bamboo sea) of Shunan (蜀南竹海), which is the name of the Town and a famous resort, where the type was collected. The Chinese name is given as “竹海秋海棠”.

Provisional IUCN conservation assessment. The new species is restricted to the area of Zhuhai Town of Changning County in Sichuan Province, and only two small close populations are found in a unique habitat near a stream or waterfall. The total number of individuals is less than 100. The area of occupancy (AOO) is less than 4 km^2 ($< 10 \text{ km}^2$) and the extent of occurrence (EOO) is less than 4 km^2 ($< 10 \text{ km}^2$). The distance of two small populations is only about 2 km from each other, and therefore both can be treated as one population. The population size is predicted to continue declining in the future owing to climate change (drought) or human disturbance (specimen collection or habitat damage). Based on the current data, this species should be treated as Critically Endangered (CR B1ab(ii, iii–v)+2ab(ii, iii–v)) following IUCN guidelines (IUCN Standards and Petitions Committee, 2024).

Additional specimens examined. CHINA: **Sichuan Province:** Changning County, Zhuhai Town, Tianbaozhai Resort (天宝寨景区), $28^{\circ}28'10.40''\text{N}$ $104^{\circ}58'42.24''\text{E}$, 832 m, 16 Sep. 2014 (fruit

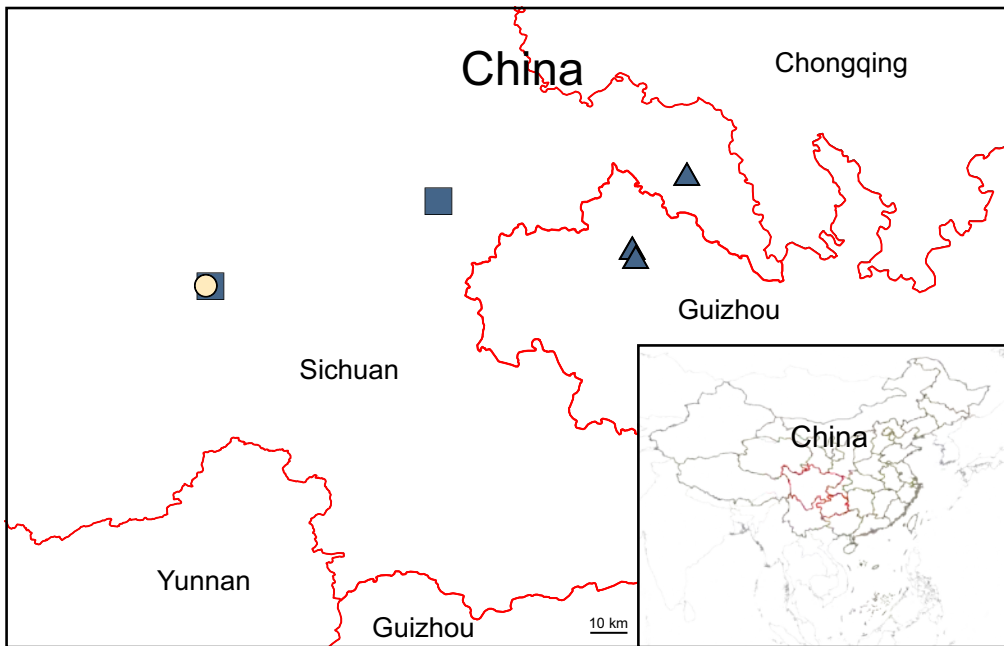


Fig. 2. Distribution of the three new *Begonia* species: ● *Begonia zhuhaiensis* (overlapped with one population of *B. shunanensis*); ■ *B. shunanensis*; ▲ *B. qianchuanensis*.

only), *Daike Tian & Lizhi Tian* TDK2258 (CSH); *ibidem*, 7 Aug. 2015 (fruit only), *Daike Tian & Lizhi Tian* TDK2510 (CSH); *ibidem*, 16 Jun. 2017 (flower), *Daike Tian & Cehong Li* TDK3179 (CSH); Wangyougu (忘忧谷), 28°27'35.48"N 104°58'57.67"E, 510 m, 7 Aug. 2015 (fruit only), *Daike Tian & Lizhi Tian* TDK2513 (CSH); *ibidem*, 3 Aug. 2016 (fruit only), *Daike Tian & Lizhi Tian* TDK2963 (CSH).

2. *Begonia shunanensis* D.K.Tian, *sp. nov.*

No closely allied species can be identified for this unique new species, and it somewhat resembles *Begonia limprichtii* Irmsch. in the same section, but differs by its inconspicuous internode (vs distinct, 2–17 mm long), larger leaves (6–27.5 × 4.5–17 cm vs 5–11 × 4–9.5 cm), very short hairs (≤ 1 mm vs 2–5 mm long) on the adaxial leaf blade surface, and wider fruits (10–13 mm vs 5–6 mm wide, excluding wings). – TYPE: China, Sichuan Province, Changning County (长宁县), Zhuhai Town (竹海镇), Wangyougu resort (忘忧谷景区), 28°27'35.48"N 104°58'57.67"E, 510 m, 7 August 2015 (fruit only), *Daike Tian & Lizhi Tian* TDK2512 (holotype CSH [CSH0150035]; isotypes CSH [CSH0150031, CSH0150032, CSH0150033]). (Fig. 3)

Herb, perennial, monoecious, 15–25 cm tall, growing on streamside slopes or flatland under forest, erect stem absent or occasionally one (rarely two) intermodal stem at anthesis, 4–5 cm long, 3.5–4.5 mm thick, leaves basal or 1 (rarely 2) smaller leaf arising from flowering stem. **Rhizome** brown, 3–35 mm long, 4–10 mm thick, pilose,

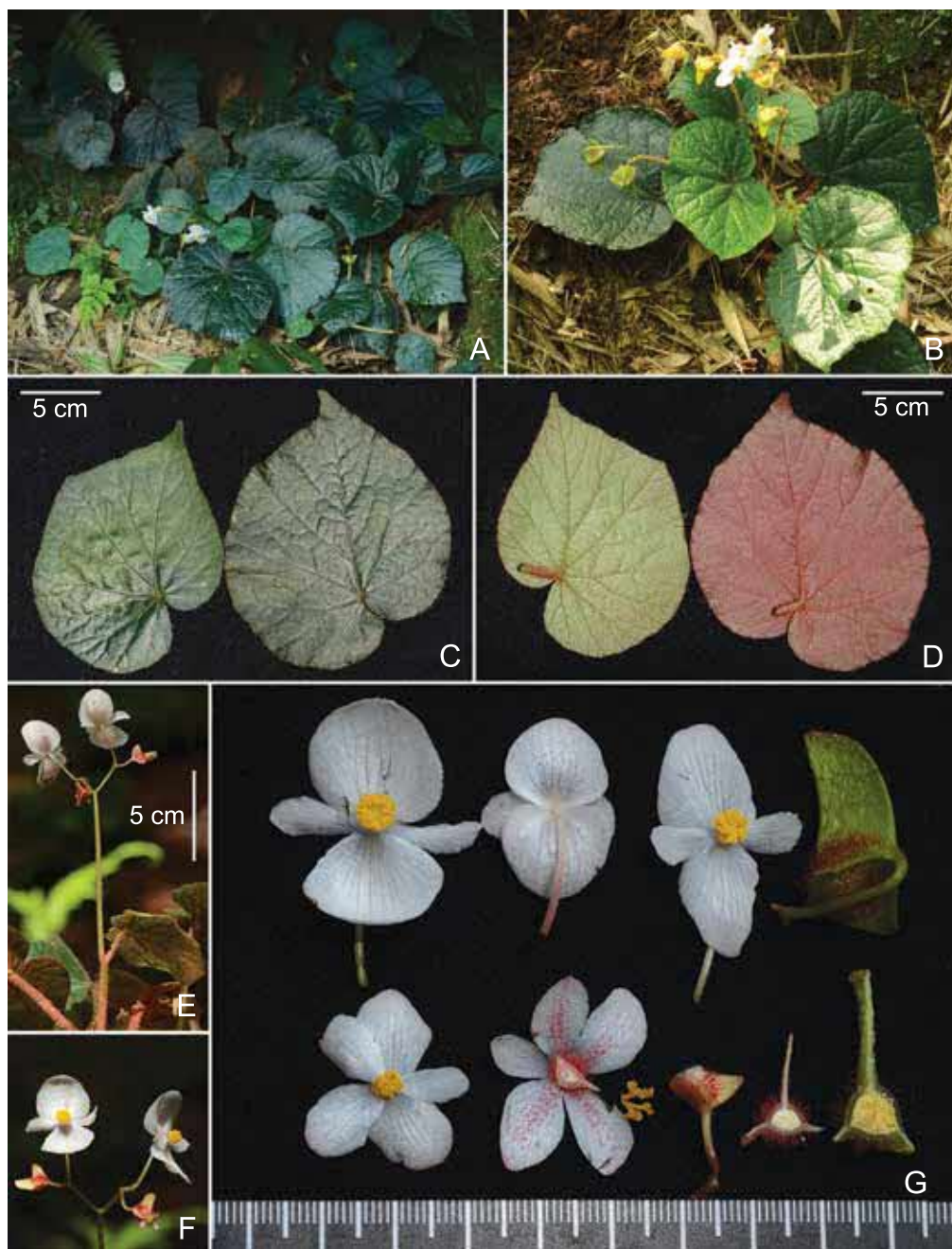


Fig. 3. *Begonia shunanensis* D.K.Tian. **A.** Habitat. **B.** Habit. **C.** Adaxial leaf surface. **D.** Abaxial leaf surface showing different colours. **E.** Plant with one internodal stem in bloom. **F.** Inflorescence. **G.** Flowers and young fruit. Top row: staminate flowers (left); side view of young fruit (right). Bottom row: front and back view of pistillate flower (left); ovary cross-sections (right). (Photos: D.-K. Tian)

internodes short or indistinct. **Stipules** only seen at rhizome terminal, green or red, triangular, apex acute. **Petioles** 3.5–19 cm long, 2–8 mm thick, ungrooved, densely covered with brown or red pubescence, hairs less than 2 mm long. **Leaf blades** dark green, red or green when young, unspotted, broadly ovate-cordate, 6–27.5 × 4.5–17 cm, broader side 2.7–10.3 cm wide, narrower side 1.7–6 cm wide, adaxially densely covered with greyish-white or red short bristly hairs, hairs 0.5–1 mm long, abaxially light green or purple-red, pubescent on veins, veins raised; venation palmate, primary veins 7–9, adaxial main veins slightly convex, the rest slightly concave; leaf base obviously oblique, acutely angled to slightly overlapping; margin entire or occasionally serrate with cilia; apex acute, sharply pointed, or cuspidate. **Inflorescence** axillary on the upper segments of creeping rhizome, up to 20 per plant, dichotomous cyme, 12–25 cm long, often branched at the base, usually with 1-internodal stem, with 5–7 flowers; peduncle green or greenish red, 6–24 cm long, 2–4 mm thick, red pubescent; bracts nearly caducous, long triangular, light green. **Staminate flower** 27–44 × 18–32 mm; pedicel 15–25 mm long, 1–1.5 mm thick, pale green or greenish white, nearly glabrous or sparsely red pubescent; tepals 4; outer tepals 2, often white, white with pink blush or white with pink base, ovate, 13–22 × 12–19 mm, apex obtuse and rounded, centre slightly concave and thicker, abaxially densely red pubescent, hairs shorter than or equal to 1 mm; inner tepals white, glabrous, obovate-lanceolate to narrowly obovate-lanceolate (in larger flowers), 8–15 × 5–8 mm, apex obtuse; androecium yellow, actinomorphic, 3–4 × 5–6 mm, stamens 54–123, filament 1–2 mm long, fused base part 1–2 mm long, anther 0.5–1.5 mm long. **Pistillate flower** 18–32 × 23–30 mm; pedicel white or white with slight pink blush, 10–16 mm long, 1–1.5 mm thick, red pubescent; tepals 5, unequal; outer tepals 2, white or white with a slightly pink blush, obovate, 8–20 × 6–16 mm, apex obtuse and rounded, sparsely red hirsute in the central area of the abaxial side, hairs nearly 1 mm long, apex obtuse and rounded; inner tepals 3, white, obovate to oblanceolate (innermost), 10–16 × 4–11 mm, the innermost smallest and significantly smaller than the other 4, glabrous or nearly so, apex obtuse; gynoecium (excluding ovary) 3–4 mm long; styles 2, stigmas 4–6 × 3–4 mm; ovary greenish white, red pubescent, placentation axile, bilamellate with secondary branching, 2-loculed. **Fruit**: stalk 10–25 mm long, 1–1.5 mm thick, sparsely red pubescent; capsule 7–10 × 5–6 mm, mostly covered with erect red hirsute hairs, hairs 0.5–4 mm long; wings unequal, 3; dorsal wing nearly triangular, 8–24 × 5–12 mm, short red pubescent, hairs nearly 1 mm long; lateral wings narrowly falcate, 3–7 × 9–12 mm.

Distribution. Two populations of this species are currently known only from southern Sichuan, one in Shunan Zhuhai resort of Changning County and the other in Gaofeng (高峰) of Naxi (纳西) in Luzhou City (泸州市) (Fig. 2).

Ecology and phenology. It grows on the soil in bamboo forest, and flowers from July to August and fruits from August to September.

Etymology. The epithet “Shunanensis” is based on the name of Shunan (another name for the southern part of Sichuan Province), because of its distribution from that region. The Chinese name is given as “蜀南秋海棠”.

Provisional IUCN conservation assessment. The new species occurs in at least two locations in Sichuan Province. One population is relatively large with more than 400 individuals in good condition of growth and the other is very small with less than 50 individuals. The two locations are separated by 60 km in distance and more populations should be found in the future. The AOO is less than 10 km² (< 10 km²) and the EOO is less than 60 km² (< 100 km²). The total number of populations is estimated to be less than five. Due to its severely fragmented distribution, and predictive decline of extent of occurrence, the area of occupancy and population size in the future because of human disturbance (including collection of plants and habitat damage), this species should be treated as Endangered (EN B1ab(i–v)+2ab(i–v)) following IUCN guidelines (IUCN Standards and Petitions Committee, 2024).

Additional specimens examined. CHINA: **Sichuan Province:** Changning County, Zhuhai Town, near the cable car station, 28°28'02.97"N 104°59'22.67"E, 630 m, 16 Sep. 2014 (fruit only), *Daike Tian & Lizhi Tian TDK2259* (CSH); Wangyougu Resort (忘忧谷景区), 28°27'35.48"N 104°58'57.67"E, 510 m, 3 Aug. 2016 (flower), *Daike Tian, Lizhi Tian TDK2964* (CSH); *ibidem*, 28°27'42"N 104°59'13"E, 560 m, 16 Jun. 2017 (flower), *Daike Tian & Cehong Li TDK3173, TDK3174* (CSH); *ibidem*, Luzhou City, Naxi district (纳西区), Huihu Village (回虎村), rock surface or soil ground near stream under forest, 28°40'24.12"N 105°32'29.33"E, 640 m, 6 Aug. 2015 (flower), *Daike Tian & Yongyi Chen TDK2503* (CSH).

3. *Begonia qianchuanensis* D.K.Tian & Z.L.Chen **sp. nov.**

This new species is close to *Begonia jinyunensis* C.-I.Peng et al. but differs mainly by its petiolules only with upper-wings (vs fully-winged), rarely lobed leaflet (vs often lobed), thicker (vs nearly equal to edge) centre part of outer tepals and longer (16–19 mm vs 8–10 mm) inner tepals of staminate flower; in addition, the flowering time is at least one month earlier than that of *B. jinyunensis*. The new species is also similar to *B. hemsleyana* Hook.f. but the latter is caulescent. – TYPE: China, Guizhou Province, Chishui City (赤水市), Hushi Town (葫市镇), Tiandaohu Resort (天岛湖风景区), Jiuquhu (九曲湖), roadsides along lake bank, in soil under forest cover, 28°33'56"N 106°0'44"E, 1110 m, 19 July 2020, *Daike Tian & Sirong Yi TDK4256* (holotype CSH [CSH0186761]; isotypes CSH [CSH0186762, CSH0186763, CSH0186765, CSH0186766]). (Fig. 4)

Herb, perennial, monoecious, 20–40 cm tall, growing in grass clumps beneath trees near lakes or stream banks, aerial stems absent or often 1 or 2 internodal stem at anthesis. **Rhizome** red or reddish brown, up to 25 cm long, 6–15 mm thick, few branched, internodes extremely short, inconspicuous to 10 mm long. **Stipules** nearly present only at terminal shoots, red, long triangular. **Petioles** green or red, unspotted, 12–47 cm long, 3–6 mm thick. **Leaf blades** 10–20 × 12–25 cm, palmately compound with 5–9 leaflets, leaflet unlobed or few shallowly lobed, rarely deeply incised, margin

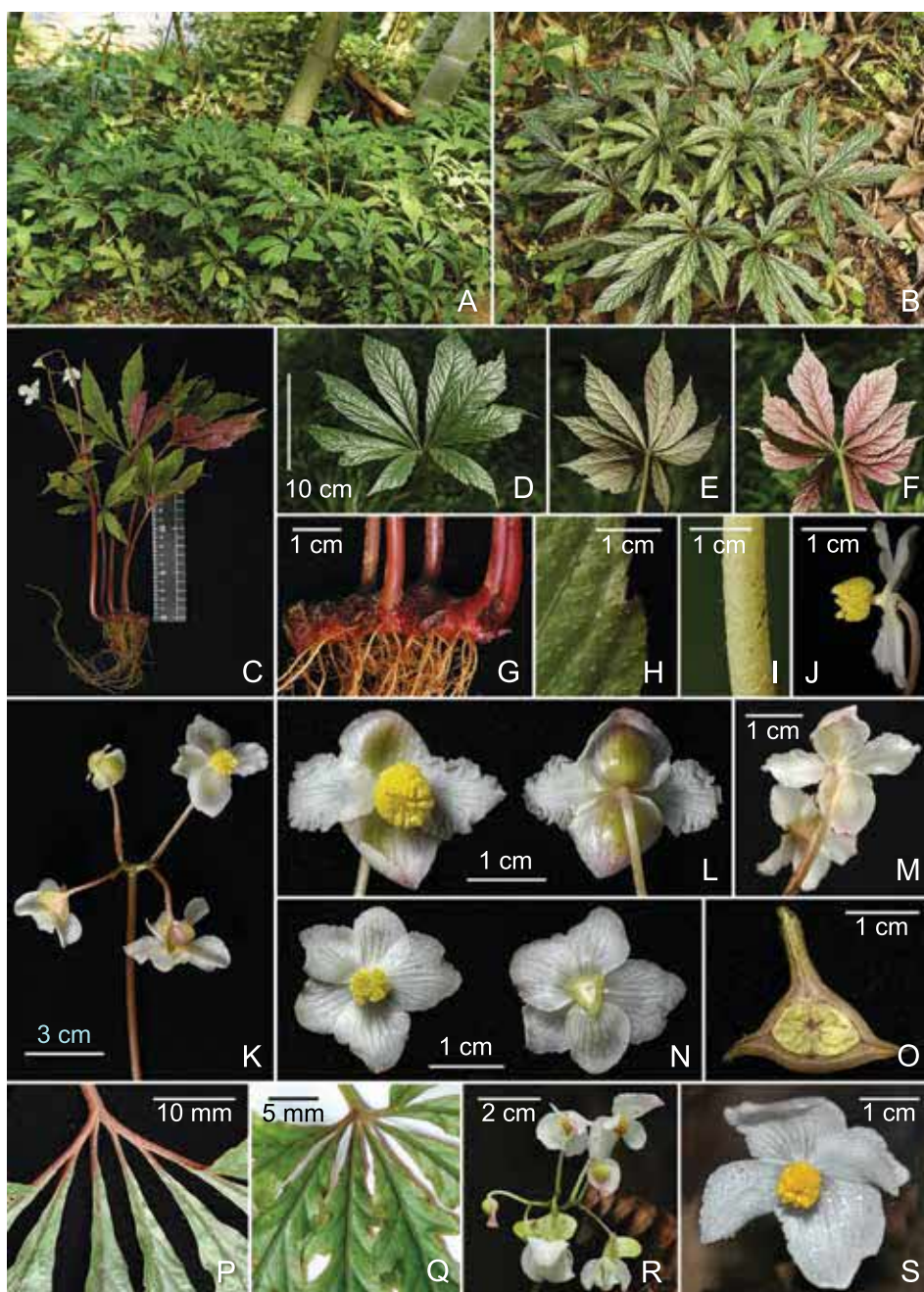


Fig. 4. *Begonia qianchuanensis* D.K.Tian & Z.L.Chen (A–P) and *B. jinyunensis* C.-I.Peng et al. (Q–S). **A.** Habitat. **B.** Individual with white-spotted leaves. **C.** Plant in flower. **D–F.** Adaxial and abaxial views of leaf showing different colours. **G.** Rhizome and petioles. **H.** Leaf section showing margin and short hairs on adaxial surface. **I.** Hairy petiole section. **J.** Side view of staminate flower. **K.** Inflorescence. **L.** Front and back views of staminate flower. **M.** Back view of staminate and pistillate flowers. **N.** Front and back views of pistillate flower. **O.** Cross-section of ovary. **P.** Leaf base showing petiolules without wing on lower part. **Q.** Leaf base showing fully winged petiolules. **R.** Inflorescence. **S.** Staminate flower. (Photos: D.-K. Tian)

finely serrate; petiolule up to 10 mm long; leaf blades adaxially green or dark green, rarely white spotted in few individuals, abaxially light green, red, or intermediate. **Inflorescence** terminal or near-terminal, 15–25 cm long, with 3–5 flowers; peduncle red or green, nearly glabrous, 13–24 cm long, 3–4 mm thick; usually one internodal stem at anthesis, 10–20 cm long, 4–8 mm thick; bracts light green, nearly triangular, early deciduous. **Staminate flower** 28–37 × 22–40 mm; pedicel pinkish white, glabrous, 21–42 mm long, 1.5–2 mm thick; tepals 4; outer tepals 2, pinkish white with reddish tinted apex, long-ovate or nearly long-obovate, 14–18 × 14–17 mm, glabrous, shiny on the back, margin turned outwards, slightly thickened and pale green at the centre, adaxially concave, apex bluntly rounded; inner tepals 2, white, glabrous, narrow obovate, obovate-lanceolate, or narrowly elliptic, 16–19 × 8–12 mm, margin wrinkled and slightly notched, apex bluntly rounded; androecium yellow, cylindrical, 5–8 × 5–8 mm, radially symmetrical, slightly oblique towards the lower tepal, stamens 120–200, filaments 1–2.5 mm long, fused column 3–5 mm long, c. 2 mm thick, anthers 0.8–1.5 mm long. **Pistillate flower** 25–33 × 24–30 mm; pedicel pinkish or pinkish white, glabrous, 18–26 mm long, 1.2–1.6 mm thick; tepals 5, white, glabrous, subequal; outer tepals 2, obovate, 10–17 × 8–14 mm; inner tepals 3, smooth, obovate or obovate-lanceolate, 10–14 × 7–9 mm; gynoecium (excluding ovary) 2.5–4.5 mm long, stigmas 5–7 × 4–6 mm; styles 2, free, c. 1 mm long, stigmas well-developed, U-shaped, spirally twisted with 1.5–2 turns on each side; ovary pale green or greenish white, glabrous, placentation axile, bilamellate with secondary branching, 2-loculed. **Fruits (immature)** green, unequally 3-winged.

Distribution. Three populations of this species are distributed in Sandu County (三都县) and Chishui City in Guizhou Province, and the other in Hejiang County (合江县) in Sichuan Province (Fig. 2).

Ecology and phenology. The species grows on rock surfaces near streams under forest, moist places under bamboo forest, or on lake banks under forest. It flowers from late May to July and fruits from July to August.

Etymology. The epithet “Chuanqianensis” is based on Chuanqian (an abbreviated name for both Sichuan and Guizhou Provinces), because the new species is distributed in the adjoining regions of these two provinces. The Chinese name is given as “川黔秋海棠”.

Provisional IUCN conservation assessment. The new species is distributed in at least three locations in Guizhou and Sichuan Provinces. The three locations are very close to each other, with the greatest distance between two of three locations about 25 km. The population in Tiandaohu Resort of Chishui City is relatively large with c. 300 individuals in total, and could be separated into three subpopulations. The population size in Houba group of Xianhe Village is very small (less than 50 individuals). The population size of Fubao Town of Hejiang County in Sichuan Province is not clear. The AOO is estimated at 12 km², with the EOO at 15 km². Additionally, the population in Tiandaohu is located along roadsides by the lake and therefore its habitat could be damaged by herbicide or

physical road maintenance. Also, plants with white-spotted leaves could be more easily targeted for collection by ornamental plant hunters. Based on the current data, this species should be treated as Endangered (EN B1ab(i–v)+2ab(i–v)) following IUCN guidelines (IUCN Standards and Petitions Committee, 2024).

Additional specimens examined. CHINA: **Sichuan Province:** Hejiang County, Fubao town (福宝镇), Yuanxing xiang (元兴乡), Datiexi (打铁溪), moist place under bamboo forest, 550 m, 23 Jun. 1977, *Hejiang Expedition Team He-0172* (Sichuan Academy of Chinese Medicine Sciences). **Guizhou Province:** Chishui City, Hushi Town, Tiandaohu Resort, Jiuquhu, lake bank, soil under forest cover, 28°33'42"N 106°0'37"E, 1110 m, 19 Jul. 2020, *Daiké Tian & Sirong Yi TDK4259* (CSH); *ibidem*, 28°33'42.41"N 106°0'30.18"E, 1070 m, beginning of flowering, 21 May 2021 (flower), *Daiké Tian et al. TDK4273* (CSH); *ibidem*, Guandu Town (官渡镇), Xianhe Village (仙鹤村), Houba Group (后坝组), nearby stream, 28°32'22"N 106°1'6"E, 1000 m, 20 Jul. 2020, *Daiké Tian & Sirong Yi TDK4273* (CSH). **Cultivated material:** Shanghai Chenshan Botanical Garden, introduced from Tiandaohu Resort of Chishui City, Guizhou Province, 4 Jun. 2021, *Daiké Tian TDK4898* (CSH).

ACKNOWLEDGEMENTS. This study is supported by the project 31570199 from National Natural Science Foundation of China, and the projects G202401 and G222405 from Shanghai Landscaping and City Appearance Administration Bureau. Lizhi Tian from Xinbang Lotus Garden of Shanghai, and Sirong Yi from Congqing Three Gorges Medical College are thanked for their assistance in field survey. Xin Ning and Rong Ge from the Herbarium of Shanghai Chenshan Botanical Garden (CSH) are thanked for specimen sorting.

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