

2. HIPTAGE Gaertner, Fruct. Sem. Pl. 2: 169. 1790, nom. cons.

风筝果属 feng zheng guo shu

Woody lianas, lianoid shrubs, or small trees. Leaves opposite, leathery or subleathery, entire, sometimes with 2 basal glands on abaxial surface; stipules minute, glandlike, or absent. Racemes axillary or terminal; peduncles bracteate; pedicels articulate, 2-bracteolate at articulation point. Flowers white, sometimes pinkish, fragrant, bisexual, zygomorphic. Calyx with 1 or 2 glands partially adnate to pedicel or eglandular. Sepals 5, imbricate, basally connate. Petals 5, clawed, ± unequal, silky pubescent. Stamens 10, unequal, one much larger than others; filaments connate at base. Ovary shallowly 3-lobed, 3–5 appendages on abaxial surface; style 1, rarely 2, filiform, at first circinate; stigma capitate. Samaras 1–3, each 3-winged; abaxial wing long, erect; lateral wings short, spreading. Seed angular-globose.

About 30 species: Bangladesh, Cambodia, India, Indonesia, Laos, Malaysia, Mauritius, Philippines, Thailand; ten species (seven endemic) in China.

Hiptage sericea J. D. Hooker is grown as an ornamental in SE Asia, with plants recorded in China from Guangdong (“Cape Syngmoon”) and Taiwan.

We are unable to treat *Hiptage leptophylla* Hayata (Icon. Pl. Formos. 3: 48. 1913), described from Taiwan, because we have seen no specimens.

- 1a. Calyx eglandular.
 - 2a. Inflorescence yellow-brown appressed pubescent; leaf blade ovate, ovate-lanceolate, or elliptic, base cuneate, apex acuminate 9. *H. minor*
 - 2b. Inflorescence white tomentose; leaf blade lanceolate or obovate-lanceolate, base attenuate, apex acuminate-obtuse or rounded 10. *H. lanceolata*
- 1b. Calyx glandular, glands adnate to pedicel.
 - 3a. Two sepals of calyx glandular 8. *H. luodianensis*
 - 3b. Only 1 sepal of calyx glandular.
 - 4a. Gland of calyx rotund or oblong, not decurrent to pedicel.
 - 5a. Leaf blade oblong, base cordate, apex acute; abaxial wing of samara obovate 5. *H. multiflora*
 - 5b. Leaf blade elliptic to ovate, base cuneate or rounded, apex acuminate; abaxial wing of samara oblong.
 - 6a. Raceme terminal, ca. 11 cm; sepal oblong; leaf base cuneate 6. *H. fraxinifolia*
 - 6b. Raceme axillary, ca. 3 cm; sepal ovate; leaf base rounded or broadly cuneate 7. *H. tianyangensis*
 - 4b. Gland of calyx oblong, oblong-lanceolate, or ovate-oblong, or ± decurrent to pedicel.
 - 7a. Leaf blade abaxially densely yellow-brown or gray-white tomentose; gland of calyx oblong-lanceolate, base decurrent to pedicel 1. *H. candicans*
 - 7b. Leaf blade glabrous, base of midrib sparsely pubescent abaxially; gland of calyx oblong or ovate-oblong, 1/4–1/2 decurrent to pedicel.
 - 8a. Body of samara shortly sericeous, wings glabrous; leaf blade oblong, elliptic-oblong, or ovate-lanceolate 4. *H. benghalensis*
 - 8b. Body and wings of samara pubescent; leaf blade lanceolate, oblong, ovate, or elliptic.
 - 9a. Abaxial wing of samara obovate-oblong, 2.5–3 × ca. 1.2 cm, lateral wings linear-lanceolate, ca. 13 × 5–6 mm; leaf blade lanceolate, oblong, or ovate, 7.5–12 × 3–4.5 cm 2. *H. acuminata*
 - 9b. Abaxial wing of samara narrowly oblanceolate, ca. 3 × 1 cm, lateral wings linear, ca. 15 × 3 mm; leaf blade elliptic, 12.5–17 × 4–7 cm 3. *H. yunnanensis*

1. *Hiptage candicans* J. D. Hooker, Fl. Brit. India 1: 419. 1874.

白花风筝果 bai hua feng zheng guo

Erect shrubs, small trees, or lianas; branchlets and leaves densely yellowish or gray-white tomentose. Petiole 5–10 mm; leaf blade oblong or elliptic-oblong, 9–15 × 4–8 cm, abaxially densely yellowish or gray-white tomentose to sparsely pubescent along veins, adaxially glabrate, or both surfaces glabrous, base broadly cuneate or rounded, with or without glands, apex shortly acuminate. Racemes axillary, densely yellow-brown pu-

bescent; pedicels 1.5–2 cm, articulate distally, bracteoles lanceolate. Sepals 4–5 mm, densely yellow-brown pubescent, apex triangular; gland black, oblong-lanceolate, 3–4 mm, base decurrent to pedicel. Petals white or pink, ovate or rotund, 8–11 × 6–8 mm, densely white pubescent. Stamens differing in size, longest up to 15 mm, others 3–4 mm; anthers 1.5–2 mm. Style thin, ca. 12 mm, apex pointed. Samara yellow-brown pubescent, abaxial wing elliptic-lanceolate, 3–3.5 cm, apex rounded or sometimes shallowly lobed, lateral wings 1–1.5 cm, apex rounded or shallowly lobed. Fl. Feb–Mar, fr. Apr–May.

Mountain forests, sparse forests on mountain slopes, shrub forests; 500–1300 m. Yunnan [India, Laos, Myanmar, Thailand].

- 1a. Erect shrubs or small trees 1a. var. *candicans*
- 1b. Lianas 1b. var. *harmandiana*

1a. *Hiptage candicans* var. *candicans*

白花风筝果(原变种) bai hua feng zheng guo (yuan bian zhong)

Hiptage arborea Kurz.

Erect shrubs or small trees; young branches and petioles densely yellowish or gray-white tomentose. Leaf blade abaxial surface densely gray-white tomentose, eglandular. Petals white. Stamen filament 8–10 mm (longest). Style ca. 12 mm. Fl. Feb–Mar, fr. Apr–May.

Sparse forests on mountain slopes, shrub forests; 500–1300 m. Yunnan [India, Myanmar, Thailand].

1b. *Hiptage candicans* var. *harmandiana* (Pierre) Dop, Bull. Soc. Bot. France 55: 429. 1908.

越南白花风筝果 yue nan bai hua feng zheng guo

Hiptage harmandiana Pierre, Fl. Forest. Cochinch. 17: t. 270 B. 1892.

Lianas; young branches glabrous or sparsely pubescent. Leaf blade surfaces glabrous, shiny, base of abaxial surface with 2 glands. Petals pink. Stamen filament up to 15 mm (longest). Style ca. 10 mm.

Mountain forests. S Yunnan [Laos].

2. *Hiptage acuminata* Wallich ex A. Jussieu, Ann. Sci. Nat., Bot., sér. 2, 13: 269. 1840.

尖叶风筝果 jian ye feng zheng guo

Scandent shrubs; young branches terete, densely yellowish brown appressed pubescent, mature branches dark brown, glabrous, lenticellate. Stipule ovate, minute, deciduous; petiole thick, ca. 6 mm, canaliculate adaxially, glabrate; leaf blade lanceolate, oblong, or ovate, 7.5–12 × 3–4.5 cm, leathery, both surfaces glabrous, midrib abaxially sparsely pubescent, base broadly cuneate to rounded, abaxially with 2 glands, margin slightly recurved, apex long acuminate; lateral veins 5 or 6 pairs. Racemes axillary or terminal, 4–6 cm, appressed pubescent, 4–10-flowered; pedicels 10–15 mm, articulate proximally or rarely at middle; bracteoles subulate-lanceolate. Sepals elliptic, 4–5 × ca. 3 mm, densely pubescent, apex rounded; gland ovate-oblong, 3–4 mm, ca. 1/4 adnate on pedicel. Petals white with pink, subrotund, 10–11 × ca. 9 mm, apex rounded, base clawed, pubescent, margin very shortly dentiform-fimbriate. Stamens differing in size, longest ca. 10 mm, others 5–7 mm; anthers ovate. Ovary pubescent; style circinate, ca. 1.2 cm. Samara body densely appressed pubescent, wings sparsely hirsute pubescent, abaxial wing obovate-oblong, 2.5–3 × ca. 12 mm, apex rounded, retuse, lateral wings linear-lanceolate, ca. 13 × 5–6 mm. Fl. Mar–Apr, fr. Apr–May.

Forest margins, mountains; ca. 1400 m. Yunnan [Bangladesh, India, Myanmar].

3. *Hiptage yunnanensis* Huang ex S. K. Chen, Acta Bot. Yunnan. 18: 405. 1996.

云南风筝果 yun nan feng zheng guo

Small trees; branchlets dark purple, terete, glabrate, lenticellate. Leaf blade elliptic, ca. 12.5 × 4–7 cm, thinly leathery, abaxially yellow-green, rugose, adaxially green, shiny, both surfaces glabrous, base broadly cuneate, abaxially with 2 glands, margin slightly recurved, apex acuminate; lateral veins 5(or 6) pairs, arcuate, veinlets reticulate. Racemes axillary, 2–3 cm, 6–10-flowered, inflorescence densely gray-brown pubescent; pedicel articulate at middle. Sepals oblong, ca. 6 × 4 mm, apex rounded, ciliate; gland oblong, ca. 4 × 2 mm, 1/4–1/2 decurrent to pedicel. Petals subrotund, ca. 8 mm in diam., densely white lanose, base rounded, clawed, margin ciliate. Ovary and base of style densely white pubescent; style circinate, ca. 14 mm. Samara densely appressed pubescent, abaxial wing narrowly oblanceolate, ca. 3 × 1 cm, apex rounded, irregularly shallowly dentate, lateral wings linear, ca. 1.5 × 0.3 cm. Fl. Apr, fr. Apr–May.

• Shrub forests on riversides; 700–800 m. NW Yunnan.

4. *Hiptage benghalensis* (Linnaeus) Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 43: 136. 1874.

风筝果 feng zheng guo

Shrubs or lianas, 3–10 m or more; branchlets and inflorescences densely yellowish brown or silver-gray pubescent; branches glabrate, ferruginous-red or dark gray, with light-colored lenticels. Petiole 5–10 mm, canaliculate adaxially; leaf blade leathery, oblong, elliptic-oblong, or ovate-lanceolate, 9–18 × 3–7 cm, young leaves light red, pubescent, old leaves green, glabrous, base broadly cuneate or rounded, abaxially often with 2 glands, apex acuminate; lateral veins 6 or 7 pairs. Racemes axillary or terminal, 5–10 cm, inflorescence yellowish brown pubescent, glabrate; pedicels articulate at middle or distally; bracteoles subulate-lanceolate. Flowers very fragrant. Sepals broadly elliptic or ovate, 5–6 mm, apex rounded, densely yellow-brown pubescent; gland thick, large, oblong, ca. 1/2 adnate on pedicel. Petals white, base yellow maculate, or yellowish or pink, orbicular or broadly elliptic, 8–15 × 5–10 mm, pubescent, apex rounded, base clawed, margin fimbriate. Stamens differing in size, longest 8–12 mm, others 3–5 mm; anthers elliptic, 1–2 mm. Style ca. 12 mm, circinate. Samara body shortly sericeous, wings glabrous, abaxial wing elliptic or obovate-lanceolate, 3.5–5(–7) × 1–1.6 cm, apex entire or retuse, lateral wings lanceolate-oblong, 1.5–3 cm, base of wing with 1 triangular-crested appendage. Fl. Feb–Apr, fr. Apr–May.

Dense forests, sparse forests, shrub forests of valleys, riverbanks, field margins, roadsides; (100–)200–1900 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Taiwan, Yunnan [Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Nepal, Philippines, Thailand, Vietnam].

- 1a. Abaxial surface of samara with triangular appendage; pedicel 1–1.6(–2) cm 4a. var. *benghalensis*
- 1b. Abaxial surface of samara without appendage; pedicel 2–2.5 cm 4b. var. *tonkinensis*

4a. *Hiptage benghalensis* var. *benghalensis*

风筝果(原变种) feng zheng guo (yuan bian zhong)

Banisteria benghalensis Linnaeus, Sp. Pl. 1: 427. 1753; *B. tetraptera* Sonnerat; *Gaertnera obtusifolia* Roxburgh; *Hiptage javanica* Blume; *H. madablota* Gaertner, nom. illeg. superfl.; *H. obtusifolia* (Roxburgh) Candolle; *H. parvifolia* Wight & Arnott.

Leaf blade 9–18 × 3–7 cm. Pedicels 1–1.6(–2) cm, articulate distally. Abaxial surface of samara with triangular-crested appendage. Fl. Feb–Apr, fr. Apr–May.

Dense forests, sparse forests of valleys, riverbanks, roadsides; (100–)200–1900 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Taiwan, Yunnan [Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Malaysia, Nepal, Philippines, Thailand, Vietnam].

4b. *Hiptage benghalensis* var. *tonkinensis* (Dop) S. K. Chen, Fl. Reipubl. Popularis Sin. 43(3): 120. 1997.

越南风筝果 yue nan feng zheng guo

Hiptage madablota Gaertner var. *tonkinensis* Dop, Bull. Soc. Bot. France 55: 429. 1908.

Leaf blade larger, ca. 18 × 7.5–8.5 cm. Pedicels 2–2.5 cm, articulate at middle, top thickened. Abaxial surface of samara without appendage.

Sparse forests, shrub forests of valleys, riverbanks, field margins; 500–1400 m. Yunnan [Laos, N Vietnam].

5. *Hiptage multiflora* F. N. Wei, Acta Phytotax. Sin. 19: 356. 1981.

多花风筝果 duo hua feng zheng guo

Lianoid shrubs, ca. 2 m; branches terete, with rounded lenticels, slightly rough, glabrate. Leaf blade leathery, oblong, 12–13 × 5–5.5 cm, abaxially glabrous or pubescent only along midrib and lateral veins, adaxially glabrous, base cordate, abaxially with 2 glands, margin recurved when dry, apex acute; lateral veins 6 or 7 pairs, midrib stout. Racemes axillary, multiflorous, densely puberulent; pedicels ca. 1 cm, articulate at middle. Sepals ovate, puberulent, 1 gland per sepal; glands rotund, not decurrent to pedicel. Samara puberulent, apex entire or irregularly serrate, abaxial wing obovate, 2.2–2.5 cm, lateral wings oblong, ca. 1.7 × 0.5 cm.

• Shrub forests on summits of limestone mountains; ca. 600 m. SW Guangxi (Longzhou).

6. *Hiptage fraxinifolia* F. N. Wei, Acta Phytotax. Sin. 19: 356. 1981.

白蜡风筝果 bai la feng zheng guo

Lianoid shrubs; young branches densely pubescent, old branches brown, with rounded lenticels. Petiole 5–6 mm, puberulent; leaf blade elliptic or ovate-elliptic, 11–13 × 3–5.5 cm, both surfaces glabrous, except abaxially pubescent along midrib, base cuneate, apex long acuminate; lateral veins 6–9 pairs. Racemes terminal, ca. 11 cm, puberulent. Sepals oblong, puberulent; gland oblong, not decurrent to pedicel. Samara puberulent, apex entire or irregularly serrate, abaxial wing oblong,

ca. 4 × 0.8 cm, lateral wings oblong, ca. 2.8 × 1 cm. Fr. May–Jun.

• Dense forests of valleys; ca. 400 m. S Guangxi.

7. *Hiptage tianyangensis* F. N. Wei, Acta Phytotax. Sin. 19: 358. 1981.

田阳风筝果 tian yang feng zheng guo

Lianoid shrubs; branches terete, brown, lenticellate; branchlets gray-brown, puberulent. Leaves opposite; petiole ca. 5 mm; leaf blade ovate or elliptic, 7–12 × 2.5–5.5 cm, base broadly cuneate or rounded, margin recurved, apex acuminate, both surfaces glabrous; lateral veins 6 pairs. Racemes axillary, ca. 3 cm, pedicels pubescent. Sepals ovate, ca. 3 mm, glabrous, apex obtuse, margin ciliate; gland rotund, not decurrent to pedicel. Petals white, ovate-orbicular, asymmetrical, pubescent, margin fimbriate. Stamen filaments glabrous. Ovary deeply 3-lobed, puberulent; style glabrous. Samara puberulent, wings suboblong, apex irregular or serrate, abaxial wing ca. 2.5 × 0.5 cm. Fl. Mar, fr. Apr–May.

• Shrub forests on exposed to sunny slopes or hilltops; ca. 400 m. W Guangxi (Tianyang), Guizhou.

8. *Hiptage luodianensis* S. K. Chen, Acta Bot. Yunnan. 18: 409. 1996.

罗甸风筝果 luo dian feng zheng guo

Shrubs, erect or scandent; branches terete, dark purple, glabrous, rough, densely lenticellate; branchlets yellow-brown appressed pubescent, glabrate. Petiole ca. 4 mm, appressed pubescent; leaf blade papery, lanceolate or narrowly ovate-lanceolate, 4–4.5 × 1.5–2 cm, abaxially greenish, glabrous except along midrib sparsely appressed pubescent, adaxially green, glabrous, base broadly cuneate to subrounded, apex long acuminate; lateral veins 5 or 6 pairs. Raceme solitary (only one raceme arising from each leaf scar axil), axillary on leaf scar of second-year branchlets, 3–3.5 cm, 6–14-flowered, yellow-brown appressed pubescent; bracts 2 or 3, ovate-lanceolate, densely pubescent; pedicels ca. 1 cm, articulate at middle; bracteoles linear-lanceolate. Sepals elliptic, ca. 3 × 1.5 mm, apex rounded, pubescent, margin ciliate; glands 2, elliptic, ca. 0.5 mm. Petals white with purple, suborbicular, ca. 8 mm in diam., mid-abaxial surface pubescent, base rounded, clawed, margin fimbriate. Stamens differing in size, longest ca. 8 mm, arched, others ca. 4 mm; anthers oblong, longitudinally dehiscent. Ovary pubescent, winged; style ca. 8 mm, curved. Young fruit and wings densely pubescent; mature fruit not seen. Fl. Mar–Apr.

• Sparse forests on mountain slopes; ca. 500 m. S Guizhou (Luodian).

9. *Hiptage minor* Dunn, J. Linn. Soc., Bot. 35: 487. 1903.

小花风筝果 xiao hua feng zheng guo

Hiptage henryana Niedenzu.

Erect shrubs, rarely lianoid shrubs, 60–90 cm tall; bark longitudinally rimose; branchlets puberulent, glabrate. Leaves opposite; petiole 3–6 mm; leaf blade leathery, ovate or ovate-

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lanceolate, 4–8 × 2.3–3.5 cm, both surfaces glabrous, base cuneate, apex acuminate. Racemes axillary or terminal, shorter than leaves, yellow-brown appressed pubescent; pedicels articulate at middle; bracteoles deciduous. Flowers fragrant. Sepals triangular or subrounded, ca. 2 mm, yellow-brown appressed pubescent, eglandular. Petals white, subrounded, 7–8 mm, margin fimbriate. Stamens conspicuously shorter than petals. Ovary pubescent. Samara glabrous or puberulent, abaxial wing oblong-elliptic, 2.5–3 cm, apex often 2- or 3-lobed or rounded, lateral wings 1–1.5 cm, apex rounded. Fl. Mar–Apr, fr. Apr–May.

• Sparse forests, shrub forests on mountain slopes; 200–1400 m. Guizhou, Yunnan.

10. *Hiptage lanceolata* Arènes, Notul. Syst. (Paris) 11: 73. 1943.

披针叶风筝果 pi zhen ye feng zheng guo

Lianoid shrubs; bark gray, becoming red-brown, ± rimose, yellow-brown lenticellate; young branchlets sparsely puberulent, quickly glabrate. Leaves opposite; petiole 5–7 mm, sparsely pubescent, deciduous, canaliculate adaxially; leaf blade leathery, lanceolate or obovate-lanceolate, ca. 7.5 × 3.5 cm, abaxially sparsely puberulent on veins, glabrate, base attenuate to petiole, eglandular, apex acuminate-obtuse to rounded; lateral veins 10–16 pairs, arcuate, anastomosing near margin, veinlets reticulate. Racemes solitary, dense to sparse, 3–18 cm, white tomentose; pedicels 6–9 mm, white tomentose, articulate at middle. Sepals ovate, apex rounded, ca. 1.5 mm, white sericeous, eglandular. Petals white, ca. 4 mm, apex rounded, proximally sericeous, base arrow-shaped, clawed, less than 1 mm, margin irregularly denticulate. Stamens differing in size, longest ca. 3 cm; filaments glabrous. Ovary villous; style glabrous, 4–4.5 mm. Fruit not seen.

• S and SW Guizhou (Luodian, Xingyi).

Fl. China 11: 135–138. 2008.