8. IODES Blume, Bijdr. 29. 1825.

微花藤属 wei hua teng shu

Lianas, woody, usually densely rust-colored hairy. Leaves opposite, rarely subopposite, petiolate, entire, papery, with pinnate veins, with tendrils between leaf pairs. Plants dioecious. Cymose panicles axillary or extra-axillary. Flowers small; pedicel jointed. Staminate flowers: calyx cupular, 5-toothed; corolla deeply (3 or)4- or 5-lobed, coherent at base, outside densely hairy; stamens 3–5, alternate with corolla lobes; filaments broad, short, rarely absent; reduced ovary small or absent. Pistillate flowers: calyx as in staminate flowers, persistent; corolla 4- or 5-lobed, base tubular and often inflated; reduced stamens absent; ovary sessile or with short pedicel, 1-loculed; ovules 2, pendulous from apex; stigma thick, peltate, apex concave, sometimes slightly oblique. Drupe obliquely obovoid, with persistent calyx; exocarp thinly crustaceous; mesocarp thin; endocarp outside reticulate polygonous concave. Seeds with fleshy endosperm; cotyledons flat, leafy.

About 19 species: Africa, tropical Asia (nine species); four species (one endemic) in China.

- 1a. Branchlets with many tumorlike lenticels, conspicuously prominent with age
 1. I. seguinii

 1b. Branchlets without tumorlike lenticels.
 2a. Drupe 3–3.8 cm; leaf blade abaxially with veins light yellow crispate pubescent
 2. I. balansae

 2b. Drupe shorter than 3 cm, leaf blade abaxially not crispate pubescent.
 3a. Staminate flowers with petals basally connate; leaf blade abaxially on veins spreading villous
 3. I. cirrhosa

 3b. Staminate flowers with petals connate to middle; leaf blade abaxially rigidly strigose
 4. I. vitiginea
- 1. Iodes seguinii (H. Léveillé) Rehder, J. Arnold Arbor. 15: 3. 1934.

瘤枝微花藤 liu zhi wei hua teng

Vitis seguinii H. Léveillé, Repert. Spec. Nov. Regni Veg. 4: 331. 1907; *Iodes vitiginea* Hance var. *levitestis* Handel-Mazzetti.

Branchlets gray-brown, terete, with many tumorlike lenticels, conspicuously prominent with age; young branches densely rust-colored crispate pubescent. Petiole 0.5-2 cm, densely rustcolored crispate pubescent; leaf blade adaxially shiny green, ovate or suborbicular, 4-14 × 3-10.5 cm, abaxially densely somewhat rigidly strigose and less puberulent, on veins only sparsely puberulent, adaxially slightly hairy only on concave midvein, midvein abaxially prominent, lateral veins 4-6 pairs, anastomosing near margin, tertiary veins usually inconspicuous, all veins and slender reticulate veins conspicuous when old especially abaxially, base cordate, apex obtuse to acute. Corymb conical, axillary or lateral, 2-3 cm, densely rust-colored crispate pubescent. Staminate flowers: calyx 4- or 5-lobed to middle, narrowly ovate, ca. 1 mm, outside densely rust-colored crispate pubescent; petals 4- or 5-lobed, basal 1/3 united, ovate to elliptic, 3-4 mm, outside densely rust-colored crispate pubescent and puberulent, inside glabrous, apex incurved; stamens 5, alternate with petals; filaments ca. 3 mm, tapering upward, incurved, near base adaxially rust-colored pubescent; anthers ovoid or oblong, ca. 0.5 mm; ovary undeveloped. Pistillate flowers unknown. Drupe yellow-green when young, red when mature, obovoidoblong, 1.8-2.3 cm, ca. 1.2 cm in diam., densely appressed pubescent; endocarp smooth, slightly grooved or reticulate. Fl. Jan-May, fr. Apr-Jun.

• Forests in karst areas; 200-1200 m. W Guangxi, SW Guizhou, SE Yunnan.

The fruit is edible and sweet, becoming pungent.

2. Iodes balansae Gagnepain in Lecomte, Notul. Syst. (Paris) 1: 200. 1910.

大果微花藤 da guo wei hua teng

Branchlets terete, yellow tomentose, inconspicuously angular, without lenticels; tendrils lateral and opposite inflorescences. Petiole 1–1.5 cm, densely yellow pubescent; leaf blade ovate, 5–12 × 2–7 cm, abaxially light yellow crispate pubescent on veins, adaxially yellow crispate pubescent only on midvein and lateral veins, lateral veins 4–6 pairs, anastomosing near margin, tertiary veins dense, subparallel, reticulate veins slender but conspicuous, all veins prominent abaxially, base slightly cordate, oblique, apex acuminate to long acuminate. Corymbs axillary or lateral, conical, 4–10 cm, densely yellow pubescent; staminate inflorescences sparse; peduncle long, 4–9 cm. Stami-

nate flowers: calyx 0.5-1 mm, 4- or 5-lobed, lobes outside densely yellow-white somewhat rigidly strigose, apex obtuse or rounded; petals 4 or 5, oblong-ovate, 2-3 mm, outside yellow-white somewhat rigidly strigose, united at base; stamens (3 or)4 or 5, alternate petals; filaments filiform, ca. 1.5 mm; anthers ovoid, ca. 0.5 mm; ovary undeveloped, flat, globose. Pistillate flowers unknown. Drupe oblong, compressed, $3-3.8 \times 1.5-2$ cm, densely yellow tomentulose, longitudinally 3-ribbed per side when dry and larger polygonous reticulate-lacunose, with slender prominent ridges in pits, tapering downward, with persistent, accrescent calyx and petals. Seeds oblong, $2-2.5 \times 1-1.5$ cm; endosperm copious; embryo ca. 1.2×0.8 cm; radicle very short. Fl. Apr–Jul, fr. May–Aug.

Valleys, sparse woods; 100–1300 m. SW Guangxi, SE Yunnan [N Vietnam].

This plant is used in Guangxi for curing nephritis.

3. Iodes cirrhosa Turczaninow, Bull. Soc. Imp. Naturalistes Moscou 27(2): 281. 1854.

微花藤 wei hua teng

Branchlets terete, densely rust-colored soft pubescent; old branches angular, occasionally very sparsely lenticellate, with axillary or extra-axillary tendrils, sometimes opposite leaves. Petiole 1-2 cm, densely rust-colored pubescent; leaf blade ovate or broadly ovate, 5-15 × 2-10 cm, abaxially densely vellow spreading pubescent, adaxially rust-colored pubescent only on midvein and lateral veins, lateral veins 3-5 pairs, tertiary veins subparallel, veins prominent abaxially, conspicuous adaxially, base subrounded to shallowly cordate, oblique, apex acute or shortly acuminate. Inflorescences shortly pedunculate, densely yellow-brown tomentose; staminate corymbs dense, sometimes combined into large panicles; pistillate few flowered. Staminate flowers small, subglobose in bud; calyx very short, ca. 0.5 mm, deeply 5-lobed, lobes triangular, outside densely rust-colored pubescent; corolla yellow, 5-lobed, united near base, lobes oblong, 2.5-3.5 mm, outside densely rust-colored pubescent, apex with caudae ca. 1 mm, densely white ciliate, incurved; stamens 5, light yellow, 1-1.5 mm; filaments very short; anthers oblongobovoid; ovary setiform-villous. Pistillate flowers: calyx larger; ovary with a pedicel, ovoid, laterally compressed, densely villous; style short; stigma apex slightly concave. Drupe red when mature, ovoid-globose, 2–2.6 × 1.2–2 cm, pulp thick, laterally compressed, pubescent, polygonous reticulate-lacunose when dry. Fl. Jan-Apr, fr. May-Oct.

Sparse woods in valleys; 400–1000(–1300) m. S Guangxi, S Yunnan [NE India, Indonesia, Laos, Malaysia, S Myanmar, Philippines, Thailand, Vietnam].

The roots are used in Guangxi for curing rheumatalgia.

4. Iodes vitiginea (Hance) Hemsley, J. Linn. Soc., Bot. 23: 115. 1886.

小果微花藤 xiao guo wei hua teng

Erythrostaphyle vitiginea Hance, J. Bot. 11: 266. 1873; Iodes ovalis Blume var. vitiginea (Hance) Gagnepain.

Branchlets compressed, light yellow somewhat rigidly strigose, with axillary or lateral tendrils. Petiole 1-1.5(-3) cm, light yellow somewhat rigidly strigose; leaf blade narrowly ovate to ovate, $6-17 \times 3-11$ cm, abaxially densely white or light yellow roughly and somewhat rigidly strigose and with few strict hairs, adaxially densely minutely granular protuberant, sparsely somewhat rigidly strigose when young, only on veins when old, lateral veins 4-6 pairs, tertiary veins parallel, reticulate veins

ally not prominent, base rounded or minutely cordate, apex long acuminate or sometimes acute. Corymb-panicles axillary. Staminate inflorescences 8–20 cm; flowers yellow-green; sepals 5, triangular, 0.5–1 mm, outside pubescent, apex acuminate; corolla 5(or 6)-lobed, united to middle, lobes narrowly elliptic, 1–1.5 mm, apex mucronate, incurved; stamens light yellow, ca. 1 mm; filaments very short; anthers oblong; ovary undeveloped, setiform-villous. Pistillate inflorescences shorter; flowers larger; ovary red when mature, ovoid-globose. Drupe compressed when mature, polygonous reticulate-lacunose, $1.3–2.2\times1.2–1.6$ cm, yellow tomentose. Fl. Dec–Jun, fr. May–Aug.

Monsoon valley forests, secondary scrub; 100–1300 m. Guangxi, Guizhou, Hainan, SE Yunnan [N Laos, N Thailand, N Vietnam].