

40. ACALYPHA Linnaeus, Sp. Pl. 2: 1003. 1753.

铁苋菜属 tie xian cai shu

Qiu Huaxing (丘华兴 Chiu Hua-hsing, Kiu Hua-shing, Kiu Hua-xing); Michael G. Gilbert

Herbs, shrubs or trees, mostly monoecious, sometimes dioecious; indumentum of simple or sometimes gland-tipped hairs. Leaves alternate; stipules lanceolate or subulate, sometimes minute, deciduous; leaf blade simple, margins crenate or dentate, rarely subentire; venation pinnate or palmate. Inflorescences axillary or terminal, mostly unbranched, bisexual or unisexual, sexes very diversely arranged, mostly bisexual with male flowers in fascicles distally along slender axis, base with 1 to few female flowers, mostly enclosed within prominent leafy bracts. Male flowers sessile; sepals 4, valvate, membranous; petals absent; disk absent; stamens often 8; filaments free; anthers 2-locular, anther-thecae pendulous and vermiform; pistillode absent. Female flowers 1–3 per bract, often sessile; bracts often dentate or lobed, accrescent in fruit; sepals 3–5, shortly connate, imbricate; ovary (2 or)3-locular; styles mostly free, lacinate. Fruit a capsule 2- or 3-lobed, small. Seeds subglobose or ovoid, smooth; caruncle and aril absent.

About 450 species: widely distributed in tropical and subtropical regions; 18 species (seven endemic, two introduced) in China.

- 1a. Inflorescences unisexual; plants monoecious or dioecious; shrubs.
 - 2a. Female spikes elongated, pendulous; bracts small, entire, ca. 1 mm; plants dioecious.
 - 3a. Female bracts ovate-rhombic, 3–7 flowers in each bract; styles 5–7 mm, exserted (cultivated) 13. *A. hispida*
 - 3b. Female bracts ovate, solitary flower in each bract; styles 2–5 mm, less conspicuous.
 - 4a. Ovary and fruit often 2-locular, styles 2, 2–3 mm 14. *A. caturus*
 - 4b. Ovary 3-locular, styles 3, 2.5–5 mm 15. *A. suirenbiensis*
 - 2b. Females spikes less than 10 cm; bracts 3–5 mm, denticulate or serrate; plants monoecious.
 - 5a. Female bracts broadly ovate, ca. 5 × 8 mm, 7–11-serrate; ovary pubescent, style 6–7 mm; leaves colored, or with red or purple spots (cultivated) 18. *A. wilkesiana*
 - 5b. Female bracts 10-denticulate; ovary hirsute or hirtellous, style 2.5–4 mm; leaves green.
 - 6a. Stipule ovate, ca. 8 mm; female bracts half-orbicular, ca. 5 mm; style ca. 4 mm 16. *A. angatensis*
 - 6b. Stipule lanceolate, ca. 12 mm; female bracts broadly ovate, 3–3.5 mm; style 2.5–3 mm 17. *A. akoensis*
- 1b. Inflorescences usually bisexual; plants monoecious; herbs or shrubs.
 - 7a. Annual herbs; inflorescences with short slender male portion.
 - 8a. Inflorescences less than 1 cm, subsessile; female bracts deeply 3–5-lobed 4. *A. supera*
 - 8b. Inflorescences more than 1 cm; female bracts not lobed, margin crenate or denticulate.
 - 9a. Inflorescences with female bracts 1 or 2(–4), ovate-cordate, 14–25 mm; allomorphic female flower absent 1. *A. australis*
 - 9b. Inflorescences with female bracts 3–9, less than 5 mm; allomorphic female flower usually present near apex.
 - 10a. Branchlets adpressed pubescent when young; female bracts ovate-cordate, crenulate 2. *A. indica*
 - 10b. Branchlets pubescent and sparsely hirsute when young; female bracts fan-shaped, denticulate 3. *A. lanceolata*
 - 7b. Shrubs; inflorescences with longer male portion, sometimes unisexual.
 - 11a. Spikes bisexual, peduncle less than 4 mm; female bracts 1–5.
 - 12a. Leaf blade ovate or narrowly ovate, puberulent along veins; female bracts ca. 2 × 3 mm, margin 4- or 5-toothed; ovary hairy and sparsely shortly echinate 11. *A. kerrii*
 - 12b. Leaf blade rhombic or ovate-rhombic, glabrous; female bracts ca. 6 mm, ca. 11-toothed; ovary densely echinate 12. *A. siamensis*
 - 11b. Spikes bisexual or unisexual, peduncle more than 5 mm; female bracts usually solitary.
 - 13a. Leaf apex long acuminate or caudate-acuminate; female sepals (3 or)4(or 5).
 - 14a. Adult leaves pilose only along veins; female bracts cupulate, ca. 5 mm; ovary hairy; capsule pilose and scattered tuberculate 5. *A. acmophylla*
 - 14b. Adult leaves uniformly pilose; female bracts suborbicular, 5–7 mm; ovary hairy and shortly echinate; capsule softly many echinate, with pilose hairs, ca. 1 mm 7. *A. mairei*
 - 13b. Leaf apex acute or acuminate; female sepals 3.
 - 15a. Stipules subulate or triangular.
 - 16a. Adult leaves pilose along midvein, 3-veined, stipules subulate, 1.5–3 mm; female bracts broadly ovate, subglabrous; ovary densely setulose; capsule scattered shortly softly setose 6. *A. wui*
 - 16b. Adult leaves uniformly pilose, venation pinnate, stipules narrowly triangular, ca. 1 mm; female bracts suborbicular, ciliate; ovary hairy; capsule sparsely shortly echinate, pilose 10. *A. hainanensis*

15b. Stipules lanceolate, pilose.

17a. Female bracts 10–12 mm, dentate, pilose 8. *A. schneideriana*

17b. Female bracts ca. 6 mm, denticulate, glabrous 9. *A. matsudae*

1. *Acalypha australis* Linnaeus, Sp. Pl. 2: 1004. 1753.

铁苋菜 tie xian cai

Acalypha australis var. *lanceolata* Hayata; *A. chinensis* Roxburgh; *A. indica* Linnaeus var. *minima* (H. Keng) S. F. Huang & T. C. Huang; *A. minima* H. Keng; *A. pauciflora* Hornemann; *Urtica gemina* Loureiro.

Annual herbs, 0.2–0.5 m tall, monoecious. Branchlets pilose. Stipules lanceolate, 1.5–2 mm; petiole 2–6 cm; leaf blade oblong-ovate, ± rhombic-ovate, or broadly lanceolate, 3–9 × 1–5 cm, membranous, abaxially pilosulose along veins, adaxially glabrous, base cuneate, rarely obtuse, crenate, apex shortly acuminate. Inflorescences axillary, rarely terminal, unbranched, 1.5–5 cm, pilosulose, bisexual; peduncle 0.5–3 cm; female bracts proximal, 1 or 2(–4), ovate, cordate, accrescent to 1.4–2.5 × 1–2 cm in fruit, pilose, margin crenate; male portion distal, short to almost capitate, slender; bracts ovate, ca. 0.5 mm. Male flowers 5–7 per bract; pedicel ca. 0.5 mm; calyx segments 4, ca. 0.5 mm; stamens (7 or)8. Female flowers 1–3 per bract, sessile; sepals 3, narrowly ovate, 0.5–1 mm, pilose; ovary pilose; styles 3, ca. 2 mm, 5–7-laciniate. Capsule 3-locular, ca. 4 mm in diam., pilose and tuberculate. Seeds subovoid, 1.5–2 mm, smooth. Fl. and fr. Apr–Dec.

Grasslands, slopes, cultivated areas; below 100–1200(–1900) m. Throughout China except Nei Mongol and Xinjiang [Japan, Korea, Laos, Philippines, E Russia, Vietnam; naturalized in N Australia and E India].

2. *Acalypha indica* Linnaeus, Sp. Pl. 2: 1003. 1753.

热带铁苋菜 re dai tie xian cai

Annual herbs, 0.5–1 m tall, monoecious. Branchlets adpressed pubescent. Leaves often ± apically clustered into flat rosette; stipules triangular, ca. 1 mm; petiole slender, 1.5–3.5 cm; leaf blade rhombic-ovate or subovate, 2–3.5 × 1.5–2.5 cm, membranous, pilosulose along veins, base cuneate, margin serrate, apex acute; basal veins 5. Inflorescences axillary, unbranched, 2–7 cm, pilosulose, bisexual; peduncle short; female bracts proximal, 3–7, 1- or 2-flowered, ovate-cordate, ca. 5 mm, margin crenulate, longitudinally many veined, pilose or subglabrous; distal male portion short, slender; bracts ovate-triangular or broadly triangular, ca. 0.5 mm; allomorphic female flower at apex. Male flowers 5–7 per bract; pedicel ca. 0.5 mm; sepals 4, ovate, ca. 0.4 mm; stamens 8. Female flowers subsessile; sepals 3, triangular, ca. 0.5 mm, ciliate; ovary pilose; styles 3, 2.5–3 mm, 5-laciniate. Capsule 3-locular, ca. 2 mm in diam., pilosulose. Seeds ovoid, ca. 1.5 mm, minutely puncticulate. Fl. and fr. Mar–Oct.

Grasslands, wastelands, roadsides; below 100 m. E Hainan, S Taiwan [Cambodia, India, Indonesia, Japan, Malaysia, Philippines, Sri Lanka, Thailand, Vietnam; tropical Africa; naturalized in tropical America].

3. *Acalypha lanceolata* Willdenow, Sp. Pl. 4: 524. 1805.

麻叶铁苋菜 ma ye tie xian cai

Acalypha boehmerioides Miquel; *A. fallax* Müller Argoviensis; *A. wightiana* Müller Argoviensis; *Urtica pilosa* Lour-eiro (1790), not *Acalypha pilosa* Cavanilles (1800).

Annual herbs, ca. 0.5 m tall, monoecious. Young branchlets yellow-brown pubescent and sparsely hirsute. Stipules lanceolate, ca. 4 mm; petiole 2–5.5 cm, pilose; leaf blade rhombic-ovate or oblong-ovate, 4–8 × 2–4 cm, membranous, both surfaces pilose, base cuneate or broadly cuneate, margin crenate, apex acuminate; basal veins 5. Inflorescences axillary, 1–3 together, 1–2.5 cm, bisexual, pubescent; peduncle short; female bracts 3–9, 1-flowered, fan-shaped, 2.5–4 × 5–6 mm, pubescent, margin denticulate, sparsely glandular-hairy, veins parallel; distal male portion short, slender; bracts lanceolate, ca. 0.5 mm; allomorphic female flowers 1–3, at apex or middle. Male flowers 5–7 per bract; pedicel ca. 1 mm; sepals 4, ca. 0.4 mm; stamens 8. Female flowers: sepals 3, triangular, ca. 0.5 mm; ovary pilose; styles 3, ca. 2 mm, 5-laciniate. Capsule 3-locular, ca. 2.5 mm in diam., pilose. Seeds ovoid, ca. 1.8 mm, smooth. Fl. and fr. Mar–Oct.

Grasslands, roadsides, maritime areas; near sea level to 100 m. Guangdong (Nansha Qundao, Xisha Qundao) [India, Indonesia, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand; Australia, Pacific islands].

4. *Acalypha supera* Forsskål, Fl. Aegypt.-Arab. 162. 1775.

裂苞铁苋菜 lie bao tie xian cai

Acalypha brachystachya Hornemann; *A. conferta* Roxburgh; *Nanocnide closii* H. Léveillé & Vaniot.

Annual herbs, 0.2–0.8 m tall, monoecious. Stems slender, pubescent and sparsely hairy. Stipules lanceolate, ca. 5 mm; petiole 2.5–6 cm; leaf blade ovate or rhombic-ovate, 2–5.5 × 1.5–3.5 cm, membranous, base cordate, sometimes cuneate, margin crenate, apex acute to acuminate; basal veins 3–5. Inflorescences axillary, 1–3 together, 0.5–0.9 cm, bisexual, pilosulose; peduncle almost absent; female bracts 3–5, ca. 5 mm, 3–5-lobed, middle lobes oblong, lateral lobes smaller, 1-flowered; distal male portion short to almost capitate; bracts ovate, ca. 0.2 mm; apex sometimes with allomorphic female flower. Male flowers fascicled; pedicel ca. 0.5 mm; calyx ca. 0.3 mm in diam. in bud, pilose; stamens 7 or 8. Female flowers: pedicel short; sepals 3, suboblong, ca. 0.4 mm, ciliate; ovary pilose and hirtellous; styles 3, ca. 1.5 mm, 3–5-laciniate. Capsule 3-locular, ca. 2 mm in diam., pilose and tuberculate. Seeds ovoid, ca. 1.2 mm, minutely reticulate. Fl. May–Dec.

Grasslands on mountain slopes, roadsides, streamsides, terraced fields, usually in disturbed areas; 100–1900 m. Anhui, S Gansu, Guangdong, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, S Shaanxi, Sichuan, Taiwan, Yunnan [Bhutan, India, Indonesia, Malaysia, Nepal, Sri Lanka, Vietnam; tropical Africa].

5. *Acalypha acmophylla* Hemsley, J. Linn. Soc., Bot. 26: 436. 1894.

尾叶铁苋菜 wei ye tie xian cai

Acalypha szechuanensis Hutchinson.

Deciduous shrubs, 1–1.5 m tall. Branchlets whitish pubescent; branches slender, reddish, glabrescent. Stipules triangular, 2–2.5 mm; petiole 1–5 cm, pilose; leaf blade ovate, narrowly ovate, or rhombic-ovate, 2.5–10 × 1.5–3.5 cm, membranous, both surfaces pilose along veins, base cuneate or obtuse, margin coarsely serrate, apex acuminate or caudate-acuminate; basal veins 3. Spikes axillary, commonly bisexual, 4–6 cm; slender peduncle 3–10 mm, pilosulose; base with 1 female flower, distally with male flowers, sometimes entirely male, or shortened inflorescence with only 1 female flower; female bracts cupulate, fruiting accrescent, ca. 5 × 8 mm, 11-denticulate, pilose; male bracts subovate, ca. 1 mm, pilose. Male flowers 3–9, fascicled; pedicel ca. 1 mm; sepals 4, ovate, ca. 0.8 mm; stamens 8. Female flowers sessile; sepals (3 or) 4, subovate, 1–1.2 mm, acute, puberulent; ovary hairy; styles 3, 4–5 mm, lacinate. Capsule 3-locular, ca. 3 mm in diam., pilose and scattered tuberculate. Fl. Apr–Aug.

• Mountain valleys or slopes, gullies, thickets; 100–1700 m. S Gansu, Guangxi, Guizhou, W Hubei, S Shanxi, Sichuan, C and NE Yunnan.

6. *Acalypha wui* H. S. Kiu, J. Trop. Subtrop. Bot. 3(4): 17. 1995.

印禅铁苋菜 yin chan tie xian cai

Shrubs, 1–2 m tall. Younger branchlets pubescent; branches elongated, brownish, glabrous. Stipules subulate, 1.5–3 mm; petiole 3–6 cm; leaf blade ovate-oblong, 9–15 × 5–8.5 cm, lightly papyraceous, both surfaces pilose along midvein, base obtuse, margin coarsely serrate, apex acuminate or acute; basal veins 3. Spike 1, rarely 2, axillary, commonly bisexual, slender, 5–14 cm, pilosulose; peduncle 5–8 mm; base with 1(or 2) female flowers, distally with male flowers, sometimes entirely male; female bracts broadly ovate, fruiting accrescent, 6–10 × 5–12 mm, 7–9-denticulate, subglabrous; male bracts narrowly ovate, ca. 1 mm. Male flowers 7–13, fascicled or glomerate; pedicel ca. 1.5 mm; sepals 4, ovate, ca. 1 mm, acute; stamens 8. Female flowers subsessile; sepals 3, narrowly ovate, ca. 1 mm, acute, somewhat ciliate; ovary subglobose, densely setulose; styles 3, ca. 6 mm, pectinate-lacinulate. Capsule 3-locular, ca. 4 mm in diam., scattered very short softly setiform. Seeds ovoid, ca. 3 mm, grayish, smooth. Fl. Apr–Dec, fr. Jun–Dec.

• Limestone hills, forests, thickets; below 100 m. NW Guangdong, SE Guangxi.

7. *Acalypha mairei* (H. Léveillé) Schneider in Sargent, Pl. Wilson. 301. 1916.

毛叶铁苋菜 mao ye tie xian cai

Morus mairei H. Léveillé, Repert. Spec. Nov. Regni Veg. 13: 265. 1914.

Deciduous shrubs, 1–4 m tall. Branchlets yellowish tomentose or sericeous when young; branches elongated, reddish, glabrous. Stipules lanceolate, 3–6 cm, pilose, deciduous; petiole 1.5–6 cm, pilose; leaf blade ovate or broadly ovate, 3–11 × 2–7

cm, membranous, both surfaces pilose, base cuneate, margin coarsely serrate, apex acuminate; basal veins 3. Spike axillary, often unisexual, rarely bisexual, slender, 3–6 cm, pubescent, peduncle 5–7 mm; flowers entirely male, rarely base with 1 female flower; female inflorescence abbreviated, with only 1 flower, peduncle often ca. 1 mm; female bracts suborbicular, 3–4 mm, fruiting accrescent, 5–7 mm, 7–11-denticulate, pilose; male bracts loose, lanceolate, ca. 1 mm, pilose. Male flowers 7–15, fascicled or glomerate; pedicel ca. 1 mm, pilose; sepals 4, subtriangular, ca. 0.7 mm, pilose; stamens 8. Female flower subsessile; sepals 4(–5), unequal, sublanceolate, 1–1.5 mm, pilose; ovary hairy and shortly echinate; styles 3, 2.5–3.5 mm, ca. 15-pectinate-lacinulate. Capsule 3-locular, ca. 2.5 mm in diam., softly many echinate, with pilose hairs, ca. 1 mm. Seeds ovoid, ca. 2 mm. Fl. Mar–Aug, fr. Jul–Sep.

Rocky limestone hills or ravine thickets; 700–2200 m. NW Guangxi, SW Sichuan, Yunnan [N Thailand].

8. *Acalypha schneideriana* Pax & K. Hoffmann in Engler, Pflanzenr. 85(IV. 147. XVI): 138. 1924.

丽江铁苋菜 li jiang tie xian cai

Deciduous shrubs, 1–3 m tall. Branchlets grayish pubescent when young; branches brownish, elongated, glabrous. Stipules lanceolate, 1.5–2.5 mm, pilose; petiole 0.4–2 cm, pilose; leaf blade oblong-ovate or subelliptic, 1.5–7 × 0.7–3.5 cm, papyraceous, both surfaces pilose, or adaxially pilose along midvein, base obtuse or broadly cuneate, margin serrate, apex acuminate; basal veins 3. Spike axillary, unisexual, rarely bisexual, slender, 2.5–4 cm, puberulent, peduncle ca. 5 mm; flowers entirely male, rarely base with 1 female flower; female inflorescence shorter, with 1(or 2) female bracts, peduncle ca. 5 mm, after flowering 1.5–2.5 cm, slender, puberulent; female bracts cordate or rounded-ovate, 10–12 mm, 7–15-dentate, pilose; male bracts loose, ovate, ca. 1 mm. Male flowers 5–7, fascicled; pedicel ca. 1 mm; sepals 4, ovate, ca. 1 mm, acute, glabrous; stamens 8. Female flower subsessile; sepals 3, ovate, ca. 1 mm, acute, puberulent; ovary densely hairy; styles 3, 2–3 mm, ca. 11-laciniate. Capsule 3-locular, ca. 3 mm in diam., pilose, sometimes scattered verruciform-setaceous. Seeds ovoid, ca. 2 mm, smooth. Fl. May–Aug.

• Mountain valleys or river ravines, springsides, thickets, forest margins; 1700–2800 m. SW Sichuan, NW Yunnan [N Thailand].

9. *Acalypha matsudae* Hayata, Icon. Pl. Formos. 9: 100. 1920 [“*matsudai*”].

恒春铁苋菜 heng chun tie xian cai

Shrubs, ca. 3 m tall. Branches purplish, glabrescent. Stipules lanceolate, ca. 2 mm, pilose; petiole 1–2 cm, pilose; leaf blade oblong-ovate or narrowly elliptic, 5–8 × 2–4 cm, lightly papyraceous, adaxially glabrescent, abaxially pilose along veins, base broadly cuneate or obtuse, margin serrulate, apex acuminate; basal veins 3. Spike axillary, bisexual, 3–5 cm; peduncle ca. 1.5 cm; base with 1 female flower, otherwise flowers male; female bracts suborbicular, fruiting accrescent, ca. 6 × 10 mm, ca. 10-denticulate, glabrous; male bracts ovate, ca. 0.2 mm. Male flowers 5 or 6, fascicled; pedicel ca. 0.5 mm; sepals 4, subovate, ca. 0.5 mm; stamens 8. Female flower

subsessile; sepals 3, subtriangular, ca. 1 mm; ovary hairy; styles 3, laciniate. Capsule 3-locular, ca. 2.5 mm in diam., pilose. Seeds ovoid, ca. 2.5 mm, smooth. Fl. Jul–Aug.

- Hills, thickets; below 100 m. S Taiwan.

10. *Acalypha hainanensis* Merrill & Chun, *Sunyatsenia* 5: 91. 1940.

海南铁苋菜 hai nan tie xian cai

Shrubs, ca. 2 m tall. Branchlets appressed puberulent when young; branches brownish, pilose. Stipules narrowly triangular; petiole 5–12 mm, appressed pilose; leaf blade elliptic or subrhombic-oblong, 3.5–7.5 × 1.5–3 cm, lightly papyraceous, both surfaces pilose, base cuneate, margin crenate, apex obtuse; venation pinnate, lateral veins ca. 5 pairs. Spike axillary, bisexual or unisexual, 5–8 cm, slender; peduncle ca. 5 mm, puberulent; base with 1 female flower, distally with male flowers or entirely male, or female inflorescence abbreviated, only 1 flower, peduncle ca. 2 mm; female bracts suborbicular, 7–8 × ca. 10 mm, 5- or 6-denticulate, ciliate; male bracts subovate, ca. 0.5 mm. Male flowers 17–21, glomerate; pedicel ca. 1 mm; sepals 4, glabrous; stamens 8. Female flower subsessile; sepals 3; ovary hairy; style 3–4 mm, laciniate. Capsule 3-locular, ca. 3 mm in diam., sparsely shortly echinate, pilose. Fl. and fr. Aug–Nov.

- Streamsides, ravine thickets; below 100 m. S Hainan.

11. *Acalypha kerrii* Craib, *Bull. Misc. Inform. Kew* 1911: 465. 1911.

卵叶铁苋菜 luan ye tie xian cai

Acalypha gagnepainii Merrill; *A. heterostachya* Gagnepain; *A. siamensis* Gagnepain (1924), not Oliver ex Gage (1922).

Shrubs, 1–3 m tall. Branchlets yellowish pubescent when young; branches elongated, brownish, glabrescent. Stipules lanceolate, 2–4 mm, pilose; petiole 1–6 cm, villous; leaf blade ovate or long ovate, 4–13 × 2.5–7 cm, membranous, both surfaces puberulent along veins, base obtuse or broadly cuneate, margin coarsely serrate, apex acuminate; basal veins 3. Spike slender, axillary, bisexual or unisexual, 4–11 cm; peduncle subsessile or ca. 3 mm, pilose; female flowers 1–5 at base and male flowers distal, or all males, sometimes 1 or 2 female flowers without males; female bracts subcordiform, ca. 2 × 3 mm, 4- or 5-denticulate, pilose; male bracts scattered, ovate, ca. 0.5 mm, pilose. Male flowers glomerate; pedicel ca. 1 mm, pilose; sepals 4, ca. 1 mm; stamens 8. Female flowers subsessile; sepals (3 or)4, subtriangular, ca. 1 mm; ovary hairy, sparsely shortly echinate; style 2–2.5 mm, ca. 11-lacinate. Capsule 3-locular, 2.5–3 mm in diam., pilose and shortly softly few echinate. Seeds ovoid, ca. 2 mm. Fl. Mar–Aug.

Limestone forests, thickets; 200–500 m. SW Guangxi, S Yunnan [Myanmar, Thailand, N Vietnam].

12. *Acalypha siamensis* Oliver ex Gage, *Rec. Bot. Surv. India* 9: 238. 1922.

菱叶铁苋菜 ling ye tie xian cai

Acalypha evrardii Gagnepain.

Shrubs, 1–2 m tall. Branchlets puberulent when young; branches glabrous. Leaves alternate or subfascicled; stipules triangular, chartaceous, 1.5–3 mm; petiole 2–8 mm, pilose; leaf blade rhombic or ovate-rhombic, 2–6 × 1–3 cm, chartaceous, glabrous, base cuneate, margin crenate, proximal half subentire, apex obtuse; venation pinnate. Spike axillary, commonly bisexual, 1.5–5 cm, slender; peduncle subsessile or ca. 2 mm, puberulent; base with 2 or 3 female flowers, distally with male flowers, sometimes entirely male; female bracts subreniform, ca. 6 mm, ca. 11-denticulate; male bracts ovate, 0.5–1 mm, pilose. Male flowers 5–9, fascicled; pedicel ca. 0.5 mm; sepals 4, ca. 0.5 mm; stamens 8. Female flowers subsessile, solitary; sepals 3, ovate, ca. 1 mm; ovary densely with echinate hairs; style 2–3 mm, 7- or 8-lacinate. Capsule 3-locular, ca. 4 mm in diam., softly echinate, ca. 2 mm. Seeds ovoid, 2.5 mm. Fl. Jun–Aug.

Dry thickets; below 100 m. Fujian (cultivated), W Hainan [Laos, Malaysia (peninsular), S Myanmar, Thailand, Vietnam].

13. *Acalypha hispida* N. L. Burman, *Fl. Indica*, 303. 1768.

红穗铁苋菜 hong sui tie xian cai

Shrubs, 1–3 m tall. Branchlets grayish tomentulose when young. Stipules triangular, 6–10 mm, pilose; petiole 4–8 cm; leaf blade broadly ovate or ovate, 8–20 × 5–14 cm, papyraceous, base broadly cuneate, obtuse, or subcordate, margin coarsely serrate, apex acuminate or acute; basal veins 3–5. Plants dioecious. Only female flowers known. Female flowers 3–7 in each bract, fascicled, subsessile; spikes 15–30 cm, axillary, pendulous; peduncle short, pubescent; bracts scattered, ovate-rhombic, ca. 1 mm, entire; sepals (3 or)4, subovate, ca. 1 mm, acute, puberulent; ovary subglobose, densely hirtellous; styles 3, 5–7 mm, lacinate, crimson or red-purple. Fl. Feb–Nov.

Cultivated in gardens; below 100–200 m. Fujian, Guangdong, S Guangxi, Hainan, Taiwan, S Yunnan [widely cultivated; origin possibly Bismarck Archipelago].

This species is cultivated as an ornamental.

14. *Acalypha caturus* Blume, *Bijdr.* 629. 1826.

尖尾铁苋菜 jian wei tie xian cai

Acalypha grandis Bentham var. *kotoensis* (Hayata) Hurusawa; *A. grandis* var. *longiacuminata* (Hayata) Hurusawa; *A. kotoensis* Hayata; *A. longiacuminata* Hayata.

Small trees, ca. 4 m tall. Young branchlets grayish tomentulose. Stipules narrowly lanceolate, 4–12 mm, pilose; petiole 5–10 cm, pilose; leaf blade broadly ovate or ovate, 8–20 × 5.5–12 cm, papyraceous, abaxially tomentulose along veins, and vein axils bearded, base obtuse or subtruncate, sometimes slightly cordate, margin crenate, apex acuminate or long acuminate; basal veins 3–5. Plants dioecious, rarely monoecious. Inflorescences axillary. Male flowers glomerate; spikes 10–20 cm, pilosulose; bracts lax, ovate, ca. 0.5 mm; pedicel ca. 1 mm; sepals 4, ca. 0.3 mm; stamens 8. Female flowers 1 in each bract; spikes 10–30 cm, slender; bracts lax, ovate, ca. 1 mm, acute, pilose; sepals 3, ovate, ca. 1 mm, pilose; ovary pubescent, often bilocular; styles 2(or 3), 2–3 mm, 15–20-lacinate. Capsule 2(or 3)-locular, 3–4 mm in diam. Seeds

ovoid, ca. 2 mm. Fl. year-round.

Forests; below 100–200 m. S Taiwan [Indonesia, Philippines].

15. *Acalypha suirenbiensis* Yamamoto, J. Soc. Trop. Agric. 5: 178. 1935.

花莲铁苋菜 hua lian tie xian cai

Acalypha hontauyuensis H. Keng.

Shrubs, ca. 3 m tall. Branchlets pubescent. Petiole 8–20 cm, pilose; leaf blade ovate, 10–20 × 8–15 cm, slightly papyraceous, abaxially glabrescent, vein axils bearded, base obtuse, subtruncate to subcordate, margin crenate or subentire, apex caudate-acuminate; basal veins 5. Plants dioecious. Only female flowers known. Female flowers subsessile, 1 in each bract; spikes axillary, 10–25 cm; peduncle 1–5 cm; bracts lax, ovate, ca. 1 mm, pilose; sepals 3, ovate, ca. 1 mm; ovary 3-locular, pubescent; style 2.5–5 mm, laciniate. Capsule 3-locular, ca. 4 mm in diam. Seeds ovoid, ca. 2 mm. Fl. Jul–Aug.

• Near seashores, thickets; below 100 m. Taiwan (Hualian, Lan Yu).

16. *Acalypha angatensis* Blanco, Fl. Filip. 750. 1837.

台湾铁苋菜 tai wan tie xian cai

Acalypha formosana Hayata; *A. grandis* Benth. var. *formosana* (Hayata) Hurusawa.

Shrubs, ca. 3 m tall. Branchlets hirsute. Stipules ovate, ca. 8 mm, acuminate, pubescent; petiole 8–10 cm, pilose; leaf blade broadly ovate or orbicular-ovate, 18–23 × 13–15 cm, slightly papyraceous, both surfaces sparsely hirsute, base obtuse to subcordate, margin serrulate, apex caudate-acuminate; basal veins 5. Plants monoecious. Spikes unisexual, axillary. Male flowers glomerate; inflorescences pendulous, bracts small, lax; pedicel ca. 1 mm, pilose; sepals 4, pilose; stamens 8. Female flowers solitary; inflorescences ca. 8 cm; peduncle ca. 1 cm; bracts lax,

half-orbicular, ca. 5 × 7 mm, ca. 10-denticulate, pilose; sepals 3, ca. 0.7 mm, ciliate; ovary densely hirtellous; styles 3, ca. 4 mm, laciniate. Fruit unknown. Fl. Jul–Aug.

Mountain slopes, thickets; 400–500 m. Taiwan [Philippines].

17. *Acalypha akoensis* Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1): 266. 1911.

屏东铁苋菜 ping dong tie xian cai

Acalypha grandis Benth. var. *akoensis* (Hayata) Hurusawa.

Shrubs, ca. 3 m tall. Young branchlets densely pubescent; branches reddish, glabrescent. Stipules lanceolate, ca. 12 mm, pilose; petiole 6–9 cm, densely pubescent; leaf blade ovate, 12–16 × 8–11 cm, slightly papyraceous, adaxially pilose, abaxially pubescent along veins, base subcordate to cordate, margin serrulate, apex caudate-acuminate; basal veins 5. Plants monoecious. Spikes unisexual, axillary. Male flowers glomerate; inflorescences 16–20 cm; peduncle ca. 1 cm, pubescent; bracts lax, ovate, ca. 0.7 mm, pilose; sepals 4, ca. 0.5 mm, pilose; stamens 8. Female flowers sessile, 2 in each bract; inflorescences 5–9 cm; peduncle ca. 1 cm, densely pubescent; bracts broadly ovate, 3–3.5 × ca. 5 mm, 10-denticulate, pilose; sepals 3, ovate, ca. 0.5 mm, acute, pilose; ovary hirsute; styles 3, 2.5–3 mm, 5-laciniate. Capsule 3-locular, ca. 2.5 mm in diam., pilose. Fl. Jul–Oct.

• Mountain slopes, thickets; 100–200 m. Taiwan.

18. *Acalypha wilkesiana* Müller Argoviensis in A. Candolle, Prodr. 15(2): 817. 1866.

红桑 hong sang

Shrubs, 1–3 m tall, monoecious. Young branchlets pubescent. Stipules narrowly triangular, ca. 8 mm; petiole 2–3 mm, pilose; leaf blade broadly ovate, 10–18 × 6–12 cm, often colored or red- or purple spotted, abaxially pilose along veins, base obtuse, margin coarsely crenate, apex acuminate; basal veins 3–5. Inflorescences axillary, unbranched, unisexual. Male flowers 9–17, glomerate; inflorescences 10–20 cm, pilose; bracts lax, ovate, ca. 1 mm; pedicel ca. 1 cm; sepals 4, ovate, ca. 0.7 mm; stamens 8. Female flowers 1 (or 2) in each bract, sessile; inflorescences 5–10 cm; peduncle ca. 2 cm; bracts broadly ovate, ca. 5 × 8 mm, 7–11-serrate; sepals 3 or 4, ovate-lanceolate, 0.5–1 mm, ciliate; ovary pubescent; styles 3, 6–7 mm, 9–15-laciniate. Capsule ca. 4 mm in diam., sparsely villous. Seeds globose, ca. 2 mm in diam., smooth. Fl. year-round.

Cultivated in gardens, parks; below 200 m. Most provinces of S China [widely cultivated as an ornamental; native to Melanesia].

Some cultivars of *Acalypha wilkesiana* are recognized, most notably 'Marginata' (金边红桑 jin bian hong sang), cultivated in S China, with leaf blades ranging to ovate-rhombic, red to pink at the margin.

