
苎麻属 zhu ma shu

Trees small, shrubs, subshrubs, or perennial herbs, without stingling hairs. Leaves alternate or opposite; stipules deciduous, intrapetiolar, free or rarely connate at base; leaf blade 3-veined, margin dentate, rarely 2- or 3-lobed; cystoliths punctiform. Inflorescence an axillary glomerule, on normal leafy stems or on specialized, slender, mostly axillary, occasionally terminal, shoots, these unbranched and spike-like to branched and panicle-like, mostly unisexual, less often bisexual. Flowers unisexual (plants monoecious or dioecious); bracts and bracteoles small, scarious. Male flowers: perianth (3 or)4 or 5-lobed or parted, segments valvate; stamens (3 or)4 or 5; filaments inflexed in bud; rudimentary ovary clavate or subglobose. Female flowers: perianth tubular, usually compressed, apex 2–4-toothed, in fruit sometimes enlarged and dilated into 2 acute angles or wings; staminodes absent. Ovary included; stigma filiform, on a style, pilose on 1 side, usually persistent for some time; ovule orthotropous. Achene not lustrous, enclosed by marcescent perianth, Seed with endosperm; cotyledons elliptic or ovate.

About 65 species: tropical, subtropical, and rarely temperate regions; 25 species (six endemic) in China.

1a. Glomerules all axillary on normal leaf branches; male flowers 4-merous; leaves alternate ........................................ 1. B. glomerulifera

1b. Glomerules all or partly arranged on specialized slender flowering branches; male flowers (3–)4–5-merous; leaves alternate or opposite.

2a. Male glomerules in axils of foliage leaves, female glomerules on specialized long spikelike shoots in terminal and subterminal axils; male flowers 4–5-merous, pedicel 2–5 mm .................................................... 3. B. zollingeriana

2b. Glomerules all arranged on specialized slender flowering shoots, rarely simply axillary; male flowers 4-merous, pedicel very short to absent.

3a. Flowering shoots with tuft of foliage leaves at apex.

4a. Leaves not lobed, apex acuminate or caudate ................................................................. 4. B. clidemoides

4b. Leaves lobed, apex cuspidate ............................................................................................................................... 5. B. umbrosa

3b. Flowering shoots without tuft of leaves at apex (except rarely in B. silvestrii).

5a. Flowering shoots branched; leaves alternate or opposite.

6a. Flowering shoots in pairs; leaves alternate, abaxially often white tomentose (or strigose in var. tenacissima); achene long stipitate at base ................................................................. 2. B. nivea

6b. Flowering shoots solitary; leaves opposite, glabrous or sparsely strigillose abaxially; achene base obtuse or cuneate.

7a. Leaf blade elliptic ovate, apex acuminate; flowering shoots with irregular second order branching; achene base narrowly cuneate ................................................................. 20. B. polystachya

7b. Leaf blade ovate-ovorbicular to suborbicular, apex abruptly caudate; flowering shoots with simple, spike-like branches only; achene base rounded ......................................................... 21. B. conica

5b. Flowering shoots usually unbranched, sometimes loosely branched at base; leaves opposite, seldom alternate in distal part of stem (only in B. allophylla and B. tricuspis).

8a. Leaf blade often 3-cusped or 3-lobed, rarely 5-lobed at apex.

9a. Leaf blade often papyraceous, 7–15(–22) cm wide, teeth 10–20 mm.

10a. Leaf blade ovate or broadly ovate, apex sometimes inconspicuously tricuspidate, base often broadly cuneate; spikes or rarely few branched at base ................................................................. 15. B. japonica

10b. Leaf blade oblate to 5-angled or oblate to orbicular-ovate, apex often 3-lobed, base often truncate or subcordate; spikes well branched into subpanicle ................................................................. 16. B. tricuspis

9b. Leaf blade herbaceous, 1–8(–13) cm wide, teeth less than 10 mm.

11a. Leaves all opposite, apex 3- or 5-cuspidate, base broadly cuneate to subtruncate, teeth 2–10 mm, sparsely strigose or subglabrous on both surfaces ................................................................. 17. B. silvestrii

11b. Leaves alternate on upper stems, opposite on lower stems, apex tricuspidate, base broadly cuneate, teeth 1–2.5 mm, long appressed hisrute adaxially, pubescent abaxially ........................................ 19. B. allophylla

8b. Leaf blade not divided at apex.

12a. Leaf blade lanceolate or linear-lanceolate.

13a. Leaf blade herbaceous, lanceolate, smooth adaxially, apex caudate or acuminate; female spikes of usually distant glomerules, often branched at base, straight; achene stipitate or very shortly so.

14a. Leaf blade apex entire, margin dentate; flowering shoots unbranched or with a few short irregular branches near base; achene almost without stipe ................................................................. 10. B. formosana

14b. Leaf blade apex serrulate, margin finely serrulate; female flowering shoot dichotomously forked at lowermost glomerule; achene stipitate ................................................................. 23. B. ingjiangensis

13b. Leaf blade thickly papery, linear-lanceolate, often strongly rugose adaxially, apex tapering to

_15a._ Leaf blade 14–29 × 2.2–5.5 cm, glabrous or glabrescent adaxially, teeth revolute; female spikes 6–32 cm; perianth tube of female flower 1.6–2.2 mm, apex rounded .................. 24. *B. penduliflora*

_15b._ Leaf blade 5–24 × 2–6.4 cm, densely appressed strigillose adaxially, teeth flattened; female spikes 4–18 cm; perianth tube of female flower 1–1.5 mm, apex attenuate .................. 25. *B. densiflora*

_12b._ Leaf blade ovate or suborbicular, rarely sublanceolate (in *B. hamiltoniana*).

_16a._ Flowering shoots branched at base.

_17a._ Shrubs.

_18a._ Leaf blade elliptic ovate; flowering shoots with irregular second order branching .................. 20. *B. polystachya*

_18b._ Leaf blade oblong, narrowly ovate or oblong-lanceolate; flowering shoots with simple, spikelike branches only.

_19a._ Branches glabrous; spikes very slender, to 26 cm .......................... 11. *B. hamiltoniana*

_19b._ Branches strigose; spikes straight, 4–10 cm.

_20a._ Branches dark purplish brown; leaf blade oblong or oblong-lanceolate, apex acuminate, tip denticulate; inflorescence unbranched .......................... 8. *B. lanceolata*

_20b._ Branches light brown; leaf blade elliptic, apex acuminate, tip entire; inflorescence with shorter branches from base .......................... 9. *B. lohuiensis*

_17b._ Herbs perennial or subshrubs.

_21a._ Leaf margin coarsely 7–14-dentate, teeth gradually larger distally .......................... 15. *B. japonica*

_21b._ Leaf margin denticate, denticulate, or serrulate, all regular.

_22a._ Leaf blade herbaceous or rarely membranous, suborbicular or orbicular-ovate.

_23a._ Leaf blade rounded, patent pubescent abaxially .......................... 6. *B. macrophylla*

_23b._ Leaf blade truncate or cordate, appressed strigose abaxially.

_24a._ Leaf blade 6.5–19 × 6–17.5 cm; spikes of distant glomerules to 40 cm .......................... 13. *B. dolichostachya*

_24b._ Leaf blade 5–9.4 × 5–8 cm; spikes of congested glomerules to 5.5 cm .......................... 14. *B. densiglomerata*

_22b._ Leaf blade usually herbaceous or papery, ovate or oblong.

_25a._ Leaf blade papery, oblong, apex denticulate .......................... 8. *B. lanceolata*

_25b._ Leaf blade usually herbaceous, ovate or narrowly ovate, apex entire.

_26a._ Leaf margin denticate; achene verrucose .......................... 10. *B. formosana*

_26b._ Leaf margin denticulate or serrulate; achene smooth .......................... 6. *B. macrophylla*

_16b._ Flowering shoots unbranched.

_27a._ Leaf blade ovate-rhombic or rhombic, margin coarsely 3–9-dentate .......................... 18. *B. spicata*

_27b._ Leaf blade ovate or suborbicular, margin serrulate, crenulate, or denticate.

_28a._ Leaf blade suborbicular.

_29a._ Leaf margin coarsely 9–14-dentate, teeth gradually larger distally .......................... 15. *B. japonica*

_29b._ Leaf margin subregularly denticate, denticulate, or serrulate.

_30a._ Branchlets densely yellowish tomentose; leaf blade tomentose to densely pubescent on both surfaces .......................... 12. *B. tomentosa*

_30b._ Branchlets strigose; leaf blade strigose adaxially.

_31a._ Leaf blade patent pubescent abaxially.

_32a._ Leaf blade sparsely puberulent abaxially .......................... 6. *B. macrophylla*

_32b._ Leaf blade densely pubescent abaxially .......................... 13. *B. dolichostachya*

_31b._ Leaf blade strigillose abaxially.

_33a._ Herbs perennial to 0.5 m tall; leaf blade 5–9.4 × 5–8 cm; female or bisexual spikes of congested glomerules 2–5 cm .......................... 14. *B. densiglomerata*

_33b._ Subshrubs or shrubs to 3 m tall; leaf blade 6.5–19 × 6–17.5 cm; female spikes of distant glomerules 9–40 cm .......................... 13. *B. dolichostachya*

_28b._ Leaf blade ovate, rarely also lanceolate (in *B. hamiltoniana*).

_34a._ Branches glabrous; leaf blade narrowly ovate to lanceolate, margin finely crenulate throughout; spikes very slender, to 26 cm .......................... 11. *B. hamiltoniana*

_34b._ Branches strigose; leaf blade ovate or narrowly ovate, margin denticate, denticulate, or serrulate, with entire tip; spikes usually less than 26 cm.

_35a._ Female spikes 0.8–2 cm; plants 0.4–0.6 m tall .......................... 7. *B. pilosiuscula*

_35b._ Female spikes 4–20 cm; plants 0.7–3.5 m tall.

_36a._ Shrubs or small trees; petiole to 1.2 cm; female inflorescences often in groups of 2–4; female perianth tube patent-puberulent all over .......................... 22. *B. siamensis*

_36b._ Herbs perennial or subshrubs; petiole to 6 or 13 cm; female inflorescences solitary; female perianth tube strigillose on shoulder.
37a. Leaf teeth 6–20 mm, gradually larger distally ........................................ 15. B. japonica
37b. Leaf teeth 2–5 mm, regular.
38a. Leaf narrowly ovate or oblong-ovate, glabrous or subglabrous adaxially; achene verrucose ................................................................. 10. B. formosana
38b. Leaf ovate, often rugose, strigose adaxially; achene smooth ............................. 6. B. macrophylla


This species is extremely variable, but can be distinguished easily by its alternate leaves, cymose inflorescences, and stipitate achenes. Two varieties are recognized: var. nivea is known only from cultivation or from naturalized populations; it is a stout plant with dense, long, spreading hairs, free stipules, and broadly ovate to suborbicular leaf blades with the abaxial surface densely, rarely more thinly, white or gray tomentose. Naturalized plants are often smaller with smaller, relatively narrower leaves and shorter inflorescences. Truly wild populations are very variable in stature and indumentum, but can be consistently distinguished by the appressed to assurgent hairs on the stems and leaves and the connate stipules, and are here distinguished as var. tenacissima. The plants are sometimes cultivated. Such plants with concolorous leaves have been variously named as var. concolor, var. tenacissima, var. viridula, and Boehmeria thailandica, but the diagnostic characters seem inconsistent, with many intermediate forms, even within local populations, and so all have been included here within var. tenacissima. More field work and molecular studies are needed to understand more fully this complex species.

Boehmeria nivea is cultivated widely in China, mainly in Jiangxi, but also in S Gansu, S Henan, Hubei, Hunan, S Shaanxi, and Sichuan. The history of the cultivation of this species in China can be traced back at least 3000 years. Ramie, which provides high-quality fiber, is used to make ropes, cloth, and some industrial materials. Ramie was introduced to Europe and North and South America in the early 18th century.

37a. Leaf teeth 6–20 mm, gradually larger distally ........................................ 15. B. japonica
37b. Leaf teeth 2–5 mm, regular.
38a. Leaf narrowly ovate or oblong-ovate, glabrous or subglabrous adaxially; achene verrucose ................................................................. 10. B. formosana
38b. Leaf ovate, often rugose, strigose adaxially; achene smooth ............................. 6. B. macrophylla

1a. Stems densely patent hirsute; stipules free; leaf blade abaxial surface densely white or gray tomentose ........................................ 2a. var. nivea
1b. Stems not patent hirsute, assortant or pressed strigose; stipules partly connate; leaf blade abaxial surface white tomentose, green and sparingly strigose or pubescent, sometimes thinly canescent tomentose .......................... 2b. var. tenacissima
2a. *Boehmeria nivea* var. *nivea*

苎麻(原变种) zhu ma (yuan bian zhong)


Shrubs to 2.5 m, most parts densely patent hirsute. Stipules free, linear, 9–11 mm; leaf blade suborbicular or broadly ovate, 7–15 × 4–13 cm, abaxial surface densely white tomentose, base subtruncate or broadly cuneate, apex cuspidate. Fl. Jul–Aug, fr. Sep–Oct.

Margins of secondary forests, thickets, roadside, often cultivated; 200–1700 m. Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [Bhutan, Cambodia, India, Indonesia, Japan, Laos, Nepal, Sikkim, Vietnam].

This variety is cultivated in S Gansu, S Henan, Hubei, Hunan, Jiangxi, S Shaanxi, and Sichuan. The fibers are used to make 夏布 (xia bu, literally “summer cloth”).


帚序苎麻 qing ye zhu ma

*Boehmeria zollingeriana* Gaudichaud-Beaupré, Voy. Uranie, Bot. 500. 1830; *B. frutescens* var. *concolor* (Makino) Nakai; *B. nipononivea* Koidzumi; *B. nivea* var. *candidans* Weddell; *B. nivea* var. *concolor* Makino; *B. nivea* var. *nippononivea* (Koidzumi) W. T. Wang; *B. nivea* var. *viridula* Yamamoto; *B. thailandica* Yahara.

Plants 0.5–2.5 m tall; stems and petioles sparsely appressed strigose, occasionally hairs dense and assurgent. Stipules at base or rarely to middle; leaf blade usually ovate or elliptic-ovate, 5–13 × 3.5–12 cm, abaxial surface greenish, sparsely appressed strigillose or patent pubescent, sometimes thinly canescent-tomentose on veinlets, base rounded, broadly cuneate or abruptly narrowly cuneate.

Forest margins, thickets, moist places along streams, occasionally cultivated; 200–1200 m. S Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangxi, Sichuan, Taiwan, SE Yunnan, Zhejiang [Indonesia, Japan, Korea, Laos, Thailand, Vietnam].

This variety is cultivated in Anhui, Guangdong, Jiangxi, Taiwan, and Zhejiang. It is perhaps the original wild form of the species.


帚序苎麻 zhou xu zhu ma

Shrubs or small trees, 1.5–3. m tall; branchlets glabrous. Leaves opposite or alternate on distal branches; stipules lanceolate, ca. 1 cm; petiole 2–12 cm, glabrous; leaf blade ovate, broadly ovate to subcordate, or in upper branches narrowly ovate or narrowly elliptic, 8–17(–20) × 4.5–12 cm, secondary veins 3–5 pairs along midvein, anastomosing near margin, abaxial surface sparsely strigillose on veins, adaxial surface glabrous or subglabrous, base rounded or subcordate, margin crenulate from base, apex acuminate or caudate. Glomerules unisexual; male glomerules in the axis of current or fallen leaves on normal branches; female glomerules on long slender terminal or subterminal branches, drooping, usually rebranching, 30–50 cm, all leaves reduced and scale-like. Male glomerules axillary, 1–1.5 cm in diam. Male flowers 5-merous; pedicel 4–5 mm; perianth lobes boat-shaped to elliptic, ca. 1 mm, glabrous or subglabrous; connate at base, often coriaceous near apex; rudimentary ovule ellipsoid, ca. 0.5 mm. Fruiting perianth brown, obovoid or ellipsoid with a cuneate to ± stipitate base, compressed, 0.8–1 mm, smooth, sparsely pubescent, sessile, apex with prolonged neck, ca. 0.2 mm, 2(or 3)-toothed. Fl. May–Sep, fr. Sep–Nov.

Forests, thickets, along streams; 100–1200 m. NW Guangxi, S Guizhou, Taiwan, S Yunnan [E India, Indonesia, Laos, Myanmar, Thailand, Vietnam].

1a. Leaf blade broadly ovate to subcordate; stipules ca. 1.5 times as long as wide; male flowers glabrous or subglabrous; female spikes or panicles often more than 30 cm. 3a. var. *zollingeriana*

1b. Leaf blade narrowly ovate to lanceolate; stipules (2–)3–4 times as long as wide; male flowers pubescent; female spikes or panicles less than 30 cm.

1a. Achene sessile; branchlets and petiole glabrous. 3b. var. *blinii*

1b. Achene stipitate; branchlets and petiole pubescent. 3c. var. *podocarpa*

3a. *Boehmeria zollingeriana* var. *zollingeriana*

帚序苎麻(原变种) zhou xu zhu ma (yuan bian zhong)

*Boehmeria zollingeriana* var. *zollingeriana* Gagnepain.

Branchlets and petioles glabrous. Leaf blade ovate, broadly ovate to subcordate, or in upper branches narrowly ovate or narrowly elliptic, 8–17(–20) × 4.5–12 cm, base rounded or subcordate. Male perianth glabrous or subglabrous. Fruiting perianth tube sessile, brown, obovoid or ellipsoid with a cuneate to ± stipitate base, compressed, 0.8–1 mm, smooth, sparsely pubescent, apex with prolonged neck, ca. 0.2 mm, 2(or 3)-toothed. Fl. Jul–Sep, fr. Sep–Nov.

Forests, thickets, along streams; 400–1200 m. S Yunnan [E India, Indonesia, Laos, Myanmar, Thailand, Vietnam].


黔桂苎麻 qian gui zhu ma


Branchlets and petioles glabrous or appressed strigillose. Distal leaves sometimes alternate. Leaf blade narrowly ovate to lanceolate, 8–24 × 2–9 cm, base broadly cuneate, rounded or cordate. Male perianth densely puberulent. Fruiting perianth brown, obovoid, ca. 0.8 mm, base ± rounded, sometimes cuneate. Fl. May–Jul, fr. Aug–Nov.

Forests; 100–1000 m. NW Guangxi, S Guizhou [N Thailand, N Vietnam].
3c. **Boehmeria zollingeriana** var. **podocarpa** (W. T. Wang) W. T. Wang & C. J. Chen, **comb. nov.**

白面苎麻 **bai mian zhu ma**


- Forests; 300–1000 m. Taiwan.

4. **Boehmeria clidemioides** Miquel, Pl. Jungh. 1: 34. 1851.

白面苎麻 **bai mian zhu ma**

Herbs perennial or subshrubs, few branched or well branched, erect or diffuse, 0.7–3 m tall; branchlets strigose. Usually dioecious. Leaves opposite or nearly so on distal branches and unequal in size; stipules lanceolate, 6–8 mm; petiole 2–9.5 cm, pubescent; leaf blade ovate, narrowly ovate, or sublanceolate, 4–14 × 2–7 cm, papery or herbaceous, secondary veins 2 or 3 pairs along midvein, abaxial surface spreading-pilose but appressed strigose along midvein and lateral veins, adaxial surface strigose and often rough, base rounded or broadly cuneate, margin serrulate or coarsely serrate from basal 1/3, apex acuminate or caudate. Glomerules unisexual, on specialized axillary branches, usually unbranched but occasionally with a few lateral branches at their base, and always with a tuft of 2–4 small foliage leaves at the apex. Glomerules 2–4 mm in diam. Male flowers 4-merous, sessile; perianth lobes ca. 1.5 mm, sparsely puberulent, connate at base; rudimentary ovule ellipsoid, ca. 0.5 mm. Fruiting perianth tube obovoid, compressed, ca. 1.5 mm, strigose on shoulder, apex 2-toothed. Fl. May–Aug, fr. Aug–Oct. 2n = 28.

Moist places in forests, forest margins, along streams, often somewhat dry places in disturbed areas; 200–2400 m. S Anhui, Fujian, S Gansu, N Guangdong, N Guangxi, Guizhou, Hubei, Hunan, Jiangxi, S Shaanxi, Sichuan, SE Xizang, Yunnan. [Bhutan, India, Laos, Malaysia, Myanmar, Nepal, Sikkim, Vietnam].

1a. Stem erect; leaves opposite .............................. 4a. var. **clidemioides**

1b. Stem often diffuse; leaves alternate or sometimes opposite in lower part of stems ........................................... 4b. var. **diffusa**

4a. **Boehmeria clidemioides** var. **clidemioides**

白面苎麻（原变种） **bai mian zhu ma** (yuan bian zhong)

**Boehmeria clidemioides** var. **cinerascens** H. Hara; **B. clidemioides** var. **platyphyllides** Yahara; **B. sidifolia** Weddell.

Subshrubs, few branched, 0.7–3 m tall. Leaves opposite or rarely alternate in upper part of branches, base often obtuse or rounded, margin 23–29-serrulate. Fruiting perianth base stipitate or cuneate. Fl. May–Aug, fr. Aug–Oct. 2n = 28.

Moist places in forests, along streams; 1000–2500 m. NW Guangxi, SE Xizang, Yunnan. [Bhutan, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Sikkim, Vietnam].


序叶苎麻 **xu ye zhu ma**


Herbs perennial or subshrubs, well branched, diffuse or erect, to 1.5 m tall. Leaves alternate or sometimes opposite in lower stems, base often cuneate, margin coarsely 7–13-dentate. Fruiting perianth base often obtuse. Fl. Jun–Aug, fr. Aug–Sep. 2n = 28.


Herbs perennial, simple or few branched, 0.4–1.2 m tall; upper stems and branchlets appressed strigose. Dioecious or monoecious. Leaves alternate or sometimes opposite; stipules lanceolate, 6–8 mm; petiole 1.5–8 cm, sparsely puberulent; leaf blade broadly elliptic or broadly rhombic, 5.2–15 × 4.6–11 cm, herbaceous, secondary veins 2 each side of midvein, both surfaces sparsely appressed strigose, base broadly cuneate or subtruncate, margin coarsely 5–9-dentate from basal 1/3, teeth larger distally, apiculate, terminal tooth as long as leaf blade proper, lateral teeth 1/2–2/3 as long. Glomerules unisexual, on different plants, on specialized axillary branches, usually unbranched, 3–11 cm, occasionally with a few lateral branches at their base, and always with a tuft of 2–4 small foliage leaves at the apex. Glomerules 1.5–3 mm in diam. Male flowers 4-merous, sessile; perianth lobes ca. 1.5 mm, sparsely puberulent, connate at base, 2 lobes comiculate near apex; rudimentary ovule ellipsoid, ca. 0.6 mm. Fruiting perianth obovoid, compressed, ca. 1 mm, strigose on shoulder, base obtuse, 2-toothed. Fl. Aug–Sep, fr. Sep–Oct.

Herbs perennial, simple or few branched, 0.4–1.2 m tall; upper stems and branchlets appressed strigose. Dioecious or monoecious. Leaves alternate or sometimes opposite; stipules lanceolate, 6–8 mm; petiole 1.5–8 cm, sparsely puberulent; leaf blade broadly elliptic or broadly rhombic, 5.2–15 × 4.6–11 cm, herbaceous, secondary veins 2 each side of midvein, both surfaces sparsely appressed strigose, base broadly cuneate or subtruncate, margin coarsely 5–9-dentate from basal 1/3, teeth larger distally, apiculate, terminal tooth as long as leaf blade proper, lateral teeth 1/2–2/3 as long. Glomerules unisexual, on different plants, on specialized axillary branches, usually unbranched, 3–11 cm, occasionally with a few lateral branches at their base, and always with a tuft of 2–4 small foliage leaves at the apex. Glomerules 1.5–3 mm in diam. Male flowers 4-merous, sessile; perianth lobes ca. 1.5 mm, sparsely puberulent, connate at base, 2 lobes comiculate near apex; rudimentary ovule ellipsoid, ca. 0.6 mm. Fruiting perianth obovoid, compressed, ca. 1 mm, strigose on shoulder, base obtuse, 2-toothed. Fl. Aug–Sep, fr. Sep–Oct.

- Forests, along streams, shady and wet places; 1100–2600 m. NW Guangxi, NW Guizhou, W Sichuan, SE Xizang, N Yunnan.


水苎麻 **shui zhu ma**

Subshrubs or herbs perennial, 1–2(–3.5) m tall; upper stems strigose. Dioecious or monoecious. Leaves opposite, unequal in size; stipules lanceolate, 8–10 mm; petiole 0.8–8 cm, pubescent; leaf blade ovate, suborbicular, elliptic-ovate, or sublanceolate, 6–18 × 3–12 cm, membranous, herbaceous, or rarely deciduous.
papery, secondary veins 2 or 3 pairs along midvein, abaxial surface rugulose, sparsely strigose or patent pubescent along veins, adaxial surface strigose, base rounded or subcordate, sometimes oblique, margin serrulate or denticulate, teeth 2–5 mm, apex acuminate or abruptly cuspidate. Glomerules unisexual, on long spikelike branches, these erect or pendent, usually unbranched, but sometimes with short or long lateral branches from base, glomerules separated or sometimes densely congested; female ones in distal axils, 7–20 cm. Male flowers 4-merous, sessile; rudimentary ovule ellipsoid, ca. 0.4 mm. Fruiting perianth tube perianth lobes ca. 1.5 mm, sparsely puberulent, connate at base; ones in distal axils, 7–20 cm. Male flowers 4-merous, sessile; rudimentary ovule ellipsoid, ca. 0.4 mm. Fruiting perianth tube ellipsoid, compressed, ca. 1 mm, smooth, strigose on shoulder, apex 2-toothed. Fl. Jun–Sep, fr. Sep–Jan.

Forest margins, along streams, road sides; 100–3000 m. N Guangdong, N and W Guangxi, Guizhou, S Xizang, Yunnan, SE Zhejiang [Bhutan, India, Indonesia, Laos, Myanmar, Nepal, Sikkim, Sri Lanka, Thailand, Vietnam].

The species as a whole is characterized by the opposite leaves, spikelike inflorescences, and fruiting perianth with a rounded base. The species as a whole is characterized by the opposite leaves, spikelike inflorescences, and fruiting perianth with a rounded base. The varieties are very distinctive and their status needs more detailed assessment.

The fibers are used to make ropes.

1a. Leaf blade suborbicular, base cordate, abaxial surface with patent hairs along veins ............................................ 6c. var. rotundifolia
1b. Leaf blade not orbicular, base usually not cordate, abaxial surface sparsely strigose or densely canescent.

2a. Leaf blade papery, 4.5–7(–10) × 2–4(–6) cm, rugose, adaxial surface stiffly hispid, reticulate veins strongly raised abaxially ........................................ 6d. var. scabrella

2b. Leaf blade often herbaceous or membranous, 7–20 × 4–12 cm, slightly rugose, adaxial surface sparsely strigose, reticulate veins slightly raised.

3a. Stems and petioles sparsely strigose; leaf blade often membranous, apex long-cuspidate, 1.5–2 cm, abaxial surface sparsely strigose ........................................ 6a. var. macrophylla
3b. Stems and petioles densely strigose; leaf blade herbaceous, apex cuspidate, 0.5–1.2 cm, abaxial surface densely canescent ........................................ 6b. var. canescens

6a. Boehmeria macrophylla var. macrophylla

水苎麻(原变种) shu zhi ma (yuan bian zhong)

Boehmeria erythropoda Miquel; B. macrophylla var. diongouensis W. T. Wang; B. platypylla D. Don; B. platypilla var. macrostachya (Wight) Weddell; Splitgerbera macrostachya Wight.


Forest margins, along streams; 100–500 m. N Guangdong, N Guangxi, Guizhou, S Xizang, Yunnan, SE Zhejiang (Dongtou) [Bhutan, India, Indonesia, Laos, Myanmar, Nepal, Sikkim, Sri Lanka, Thailand, Vietnam].


灰绿水苎麻 hui lü shui zhu ma


Stems and petioles densely strigose. Leaf blade herbaceous, abaxial surface densely canescent, apex cuspidate, 0.5–1.2 cm. Female spikes thick, with congested glomerules in fruit.


Forest, along streams; 100–500 m. N Guangdong, N Guangxi, Guizhou, S Xizang, Yunnan [Bhutan, N India, Nepal, Sikkim].


细叶苎麻 cao ye zhu ma

Urtica scabrella Roxburgh, Fl. Ind., ed. 1832, 3: 581. 1832; Boehmeria platypilla var. scabrella (Roxburgh) Weddell.


疏毛苎麻 shu mao zhu ma

Urtica pilosiuscula Blume, Bijdr. Fl. Ned. Ind. 491. 1826; Boehmeria platypilla D. Don var. pilosiuscula (Blume) Handel-Mazzetti.
Subshrubs or herbs perennial, prostrate at base, 0.4–0.6 m tall; upper stems densely strigose or velutinous. Monoecious. Leaves opposite, unequal in size; stipules subulate-lanceolate, 5–10 mm; petiole 0.3–6.5 cm, velutinous; leaf blade obliquely ovate or obovate-elliptic, 3–11 × 1.5–6.2 cm, herbaceous, slightly rugulose, secondary veins 3 pairs along midvein, abaxial surface pubescent or velutinous along veins, adaxial surface strigose, base obliquely rounded or obtuse, margin serrulate, apex acuminate or slightly acuminate, serrulate. Glomerules unisexual, in short congested, often unbranched spike-like shoots, 0.8–2 cm; male glomerules distal. Male flowers 4-merous, sessile or subsessile; perianth lobes ca. 1 mm, sparsely puberulent, connate at base; rudimentary ovule ellipsoid, ca. 0.6 mm. Fruiting perianth broadly ovoid, compressed, ca. 1 mm, smooth, strigose on shoulder, smooth, apex 2-toothed. Fl. Sep–Oct, fr. Oct–Nov.

Secondary forest margins, along streams, rocks; 700–1500 m. Hainan, Taiwan, Yunnan [Indonesia, Thailand].


**Boehmeria tonkinensis** Gagnepain.

Small shrubs 1–3 m tall; branches dark purplish brown, strigose. Monoecious. Leaves opposite, slightly unequal in size; stipules lanceolate, 5–8 mm; petiole 0.3–2.5 cm, strigose; leaf blade oblong-obovate or oblong-lanceolate, 5–12 × 2.3–3.2 cm, thinly papery, secondary veins 3 or 4 each side of midvein, reticulate veins prominent abaxially, abaxial surface pubescent with strigose veins, adaxial surface slightly rugulose, sparsely strigose, base obtuse or broadly cuneate, margin denticulate, apex acuminate, tip denticulate. Glomerules on axillary spike-like branches, with a few branches from near base, 4–11 cm, often paired at each axil, often bisexual with proximal female glomerules and distal male glomerules; glomerules 2.5–3 mm in diam., 1–3 mm apart. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1 mm, sparsely puberulent, connate at base; comiticule near apex; rudimentary ovule obovoid, ca. 0.3 mm. Fruiting perianth broadly ovoid, compressed, ca. 1 mm, smooth, strigose on shoulder, base rounded, apex 2-toothed. Fl. Mar–May, fr. Jun–Aug.

Moist places, secondary forests, near streams; 200–1300 m. Hainan, SE Yunnan [Malaysia, Vietnam].

This species is here newly recorded for China. Hainan and N Vietnam have very similar floras with many species in common, often localized around the Beibu (Tonkin) gulf.


**qiong hai zhu ma** bei yue zhu ma

**Boehmeria tonkinensis** Gagnepain.

Small shrubs 1–1.5 m tall; branches dark brown, strigose. Dioecious. Leaves opposite, unequal in size; stipules subulate-lanceolate, 8–10 mm; petiole 1–6 cm, strigose; leaf blade elliptic, 8–14 × 3–5.5 cm, secondary veins 2 pairs along midvein, abaxial surface sparsely strigose along veins, adaxial surface glabrous, base cuneate, margin denticulate, apex acuminate. Glomerules on axillary spikelike branches, often with less straight branches from base, ca. 10 cm. Fruiting perianth broadly ovoid, compressed, ca. 1 mm, strigose on shoulder, 2-toothed. Fl. and fr. Sep.

- Moist places, along streams; ca. 200 m. Hainan (Ledong).


**hai dao zhu ma** hai dao zhu ma

Subshrubs or herbs perennial, 0.8–1.5 m tall; stems often simple, 4-angled, upper ones appressed strigose, then glabrescent. Dioecious or sometimes monoecious. Leaves opposite; stipules lanceolate, 4–7 mm; petiole 1.5–13 cm, strigose or glabrescent; leaf blade ovate, oblong-ovate, lanceolate, or linear-lanceolate, 8–15(–23) × 2.5–6.5(–13) cm, herbaceous, secondary veins 3 or 4 each side of midvein, both surfaces sparsely strigose or glabrous, adaxial surface smooth, base obtuse or rounded, margin dentate, apex long acuminate or caudate. Glomerules distant on axillary spikelike flowering shoots, sometimes branched at base, 3.5–9(–16) cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1 mm, sparsely puberulent, connate at base; rudimentary ovule obovoid, ca. 0.5 mm. Fruiting perianth tube almost without stipe, broadly rhomboid or obovoid, slightly compressed, ca. 1 mm, verrucose, strigose on shoulder, base obtuse or broadly cuneate, almost without stipe, apex 2(–4)-toothed. Fl. Jun–Aug, fr. Aug–Oct.

Secondary forests, thickets, along streams, roadsides; below 100 to 1400 m. S Anhui, Fujian, Guangdong, Guangxi, SE Guizhou, W Hunan, Jiangxi, Taiwan, Zhejiang [Japan].

1a. Leaf blade ovate to lanceolate, base obtuse or rounded; petiole 1.5–13 cm; fruiting perianth rhomboid, often with cuneate base ........................................ 10a. var. *formosana*

1b. Leaf blade linear-lanceolate, base cuneate; petiole 1–1.5 cm; fruiting perianth subglobose with obtuse base ........................................ 10b. var. *stricta*

10a. *Boehmeria formosana* var. *formosana*


**fu zhou zhu ma**


Petiole 1–1.5 cm, strigose; leaf blade linear-lanceolate, 9–
17 × 2–3.5 cm, base cuneate. Achene and surrounding perianth subglobose, finely reticulate, base obtuse, apex often 4-toothed. Fr. Aug.

- Thickets; ca. 100 m. Fujian, Guangdong, Taiwan, Zhejiang.


细序苎麻 xi xi zhu ma

Boehmeria platyphylla D. Don var. hamiltoniana (Weddell) Weddell.

Shrubs to 2 m tall; branches glabrous. Leaves opposite, unequal in size; stipules subulate-lanceolate, ca. 7 mm; petiole 1.2–7 cm, strigose, glabrous; leaf blade obliquely ovate, oblong, or rarely lanceolate, 8–21 × 3.5–8 cm, herbaceous, secondary veins 2 pairs along midvein, abaxial surface pubescent along veins, adaxial surface sparsely strigose, base broadly cuneate or obliquely subrounded, margin inconspicuously crenulate, apex acuminate. Glomerules unisexual, on long spikelike branches, nodding; male spikes in pairs, in axils of flowering branches, male branches sometimes branched at base, 5–10 cm; female spikes often unbranched, 10–40 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.5 mm, sparsely puberulent, connate at base; rudimentary ovule obovoid, 0.3–0.5 mm. Fruiting perianth rhomboid-obovoid, compressed, ca. 1.2 cm, strigose on shoulder, base obtuse, apex with very short neck, 2-toothed. Fl. Jul–Sep, fr. Sep–Nov.

- Thickets in hills, moist or disturbed places; 100–1300 m. Guangdong, Guangxi, Guizhou.

The fibers are used to make ropes.

1a. Stems and petioles appressed strigose; leaf blade appressed strigillose abaxially ....................................... 13a. var. dolichostachya
1b. Stems and petioles patent strigose; leaf blade patent pubescent abaxially ..... 13b. var. mollis

13a. Boehmeria dolichostachya var. dolichostachya

长序苎麻 chang xu zhu ma

Subshrubs or small shrubs 0.6–3 m tall; upper stems strigose. Leaves opposite, slightly unequal in size; stipules subulate-triangular, ca. 5 mm; petiole 2–19 cm, strigose or pubescent; leaf blade suborbicular or orbicular-ovate, 6.5–19 × 6–17.5 cm, herbaceous, secondary veins 2 pairs along midvein, abaxial surface densely appressed strigillose or patent pubescent, adaxial surface often sparsely appressed strigose, base cordate or subtruncate, margin coarsely dentate, apex cuspidate or caudate. Glomerules unisexual, distant along long spikelike flowering branches, male branches sometimes branched at base, 5–10 cm; female spikes often unbranched, 10–40 cm. Male flowers 4-merous, sessile; perianth lobes obovate, ca. 1 mm, sparsely puberulent, connate at base; rudimentary ovule obovoid, 0.3–0.5 mm. Fruiting perianth obovate, compressed, ca. 1.2 cm, strigose on shoulder, base obtuse, apex with very short neck, 2-toothed. Fl. Jul–Sep, fr. Sep–Nov.

- Thickets in hills, moist or disturbed places; 100–1300 m. Guangdong, Guangxi, Guizhou.

The fibers are used to make ropes.

13b. var. mollis

柔毛苎麻 rou mao zhu ma


- Partly shaded thickets in limestone hills, disturbed places; 100–1300 m. N Guangdong, Guangxi, Guizhou.


柔毛苎麻 rou mao zhu ma


- Often moist places, thickets in hills; 500–700 m. Guangdong, Guangxi, Guizhou.


密果苎麻 mi guo zhu ma

Herbs perennial or subshrubs 0.3–0.5 m tall; stems simple or branched, strigillose along distal 1/2. Leaves opposite, subequal in size; stipules linear, 7–9 mm; petiole dark reddish, 2.5–8 cm, sparsely strigillose; leaf blade suborbicular or orbicular-ovate, 5.9 × 5.8 cm, herbaceous, secondary veins 2 or 3
pairs along midvein, abaxial surface purplish and densely appressed strigillose, adaxial surface often sparsely appressed strigose, base cordate or subcordate, margin coarsely dentate, apex cuspidate or caudate and entire. Glomerules unisexual, densely congested along thick, columnar spikelike branches; bisexual and male branches often branched at base, 2.5–5.5 cm; female branches unbranched. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1 mm, sparsely puberulent, connate at base; rudimentary ovule obovoid, 0.06 mm. Fruiting perianth rhomboid-obovoid, compressed, 1–1.3 mm, reticulate, strigose on shoulder, base obtuse, apex with very short neck, 2-toothed. Fl. Jun–Aug. fr. Sep–Oct.

- Forests, thickets, along streams; 200–700(–1200) m. S Fujian, N Guangdong, N Guangxi, Guizhou, SW Hubei, W Hunan, Jiangxi; S Sichuan, SE Yunnan.


野线麻 ye xian ma

**Urtica japonica** Linnaeus f., Suppl. Pl. 481. 1782; *Boehmeria grandiflora* Weddell; *B. holosericus* Blume; *B. japonica* var. *appendiculata* (Blume) Yahara; *B. japonica* var. longispicca (Steudel) Yahara; *B. longispica* Steudel; *B. pilusphanensis* Liu & Lu; *B. platyphylla* D. Don var. *macrophylla* Weddell; *B. spicata* var. *duploserrata* C. H. Wright; *B. tawaniana* Nakai & Satake.

Subshrubs or herbs perennial, simple or few branched, 0.5–1.5 m tall; upper stems and branchlets densely appressed or patent strigose. Dioecious. Leaves opposite, subequal in size; stipules lanceolate, 8–1.2 mm; petiole 6–8 cm, appressed or patent strigose; leaf blade dark green or black when dry, lobes elliptic, ca. 1 mm, sparsely puberulent, connate at base; rudimentary ovule obovoid, 0.06 mm. Fruiting perianth rhomboid-obovoid, compressed, 1–1.3 mm, reticulate, strigose on shoulder, base obtuse, apex with very short neck, 2-toothed. Fl. Jun–Aug. fr. Sep–Oct.

- Forests, thickets, along streams; 200–700(–1200) m. S Fujian, N Guangdong, N Guangxi, Guizhou, SW Hubei, W Hunan, Jiangxi; S Sichuan, SE Yunnan.


八角麻 ba jiao ma

**Boehmeria platyphylla** D. Don var. *tricuspis* Hance, J. Bot. 12: 261. 1874; *B. japonica* Miquel var. *plataniifolia* Maximowicz; *B. maximowiczii* Nakai & Satake; *B. plataniifolia* Franchet & Savatier.

Subshrubs or herbs perennial, simple or few branched, 0.5–1.5 m tall; upper stems and branchlets densely pubescent. Dioecious or monoecious. Leaves opposite or rarely alternate, subequal in size; stipules lanceolate, 7–10 mm; petiole 1.5–6–10 cm, densely pubescent; leaf blade dark green or black when dry, oblong to 5-angled or oblate to orbicular-ovate, often ovate in upper stems, 8–24(–22) cm, spungy, secondary veins 2 pairs along midvein, abaxial surface densely pubescent along veins and veinlets, adaxial surface roughish, densely strigose, base truncate, subcordate, or broadly cuneate, margin coarsely 8–12-dentate, teeth gradually larger distally, often biseriate apically, axil 3-cusped or lobed, tip serrulate. Glomerules on axillary spikelike flowering branches, male branches often branched, 8–17 cm; female spikes distal, unbranched or branched, 5.5–24 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1 mm, strigillose, connate at base. Fruiting perianth rhomboid-obovoid, compressed, ca. 1.2 mm, smooth, strigillose on shoulder, base cuneate or stipitate, apical with short neck, 2-toothed. Fl. Jul–Aug. fr. Sep–Oct.

- Forest margins, thickets, along streams in hills and mountains; 500–1400 m. Anhui, Fujian, S Gansu, Guangdong, Guangxi, Guizhou, W Hebei, W Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shanxi, Sichuan, Taiwan, SE Yunnan, Zhejiang [Japan, Korea].

The high-quality fibers are used to make cloth, paper, and ropes. The leaves are used as fodder and as traditional medicines to relieve internal fever.


赤麻 chi ma


Herbs perennial or subshrubs, simple or few branched, 0.6–1 m tall; upper stems and branchlets sparsely strigillose. Dioecious or monoecious. Leaves opposite, unequal or subequal in size; stipules lanceolate, 5–7 mm; petiole 1.5–4(–8) cm, sparsely strigillose; middle leaf blade 5-angled or orbicular-ovate, 5–8(–13) × 4.8–7.5(–13) cm, thinly herbaceous, secondary veins 1–3 each side of midvein, both surfaces sparsely strigillose or abaxial surface sometimes glabrous, base broadly cuneate or subtruncate, apex 3- or 5-cuspidate, sometimes caudate; upper leaf blade gradually smaller, base broadly cuneate or submargin, 5–10-dentate, denticles gradually larger distally, apex caudate or inconspicuously tricuspidate. Glomerules on axillary, lax, unbranched spikelike flowering branches; male or bisexual ones in proximal axils; female ones...
19. Boehmeria allophylla

Boehmeria allophylla

Small shrubs 1–1.5 m tall. Often monoecious, sometimes dioecious. Stems simple or branched distally; upper stems and petioles densely puberulent. Leaves opposite, slightly unequal in size; stipules narrowly lanceolate, 8–12 mm, free; petiole 3–8 cm; leaf blade light green when dry, elliptic-ovate or ovate, 7–20 × 4–12 cm, herbaceous, secondary veins 3 or 4 pairs each side of midvein, tertiary veins many, transversely parallel, abaxial surface strigillose, adaxial surface often densely pubescent, base cordate or rounded, margin serrate, apex acuminate. Glomerules many flowered, 4–5 mm in diameter, on axillary, irregularly spreading, much rebranched specialized flowering shoots, bisexual shoots lax, to 8 cm; female shoots in distal axes, congested, to 13 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.2 mm, densely puberulent, connate at base; rudimentary ovule ellipsoid, ca. 0.5 mm. Fruiting perianth tube rhomboid-ovoid, compressed, 1–1.2 mm, strigillose on shoulder, base cuneate or stipitate, apex with short neck, 2-toothed. Fl. Jul.–Aug., fr. Sep.–Oct.

Forests, along streams; 2100–2700 m. SE Xizang [Bhutan, NE India, Nepal, Sikkim].

20. Boehmeria polystachya

Boehmeria polystachya

Herbs or shrubs 1–1.5 m tall. Often monoecious, sometimes dioecious. Stems simple or branched distally; upper stems, branches and petioles densely puberulent. Leaves opposite, slightly unequal in size; stipules narrowly lanceolate, 8–12 mm, free; petiole 3–8 cm; leaf blade light green when dry, elliptic-ovate or ovate, 7–20 × 4–12 cm, herbaceous, secondary veins 3 or 4 pairs each side of midvein, tertiary veins many, transversely parallel, abaxial surface strigillose, adaxial surface often densely pubescent, base cordate or rounded, margin serrate, apex acuminate. Glomerules many flowered, 4–5 mm in diameter, on axillary, irregularly spreading, much rebranched specialized flowering shoots, bisexual shoots lax, to 8 cm; female shoots in distal axes, congested, to 13 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.2 mm, densely puberulent, connate at base; rudimentary ovule ellipsoid, ca. 0.5 mm. Fruiting perianth tube rhomboid-ovoid, compressed, 1–1.2 mm, strigillose on shoulder, base cuneate, apex long necked, 4-toothed. Fl. Jul.–Aug., fr. Sep.–Oct.

Forests, along streams; 2100–2700 m. SE Xizang [Bhutan, NE India, Nepal, Sikkim].

21. Boehmeria conica

Boehmeria conica

Herbs or shrubs 1–1.5 m tall. Often monoecious, sometimes dioecious. Stems simple or branched distally; upper stems, branches and petioles densely puberulent. Leaves opposite, slightly unequal in size; stipules narrowly lanceolate, 8–12 mm, free; petiole 3–8 cm; leaf blade light green when dry, elliptic-ovate or ovate, 7–20 × 4–12 cm, herbaceous, secondary veins 3 or 4 pairs each side of midvein, tertiary veins many, transversely parallel, abaxial surface strigillose, adaxial surface often densely pubescent, base cordate or rounded, margin serrate, apex acuminate. Glomerules many flowered, 4–5 mm in diameter, on axillary, irregularly spreading, much rebranched specialized flowering shoots, bisexual shoots lax, to 8 cm; female shoots in distal axes, congested, to 13 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.2 mm, densely puberulent, connate at base; rudimentary ovule ellipsoid, ca. 0.5 mm. Fruiting perianth tube rhomboid-ovoid, compressed, 1–1.2 mm, strigillose on shoulder, base cuneate, apex long necked, 4-toothed. Fl. Jul.–Aug., fr. Sep.–Oct.

Forests, along streams; 2100–2700 m. SE Xizang [Bhutan, NE India, Nepal, Sikkim].

The fibers are used to make ropes, cloth and paper.

basal veins extending into apical 1/5 of leaf blade, secondary veins 3 or 4 each side of midvein, reticulate veins slightly raised abaxially, abaxial surface subglabrous, adaxial surface sparsely adpressed strigose, glabrescent; base cordate, rounded truncate or broadly cuneate, margin crenate, apex cuspidate to shortly acuminate, rarely acuminate, tip entire. Glomerules 5–10-flowered, on axillary, regularly spreading branches along specialized flowering shoots 5–8 cm; branches simple, spikelike, progressively and regularly shorter toward apex of shoot. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.2 mm, sparsely puberulent, connate to middle. Fruiting perianth tube broadly ovoid, compressed, ca. 0.8 mm, sparsely strigillose on shoulder, base ± rounded, apex with very short neck. Fl. Oct–Mar, fr. Apr–Jun.

Forests, shady wet places in ravines; 1200–2000 m. SE Xizang, Yunnan [NE India (Bengal)].

This new species is named for its small inflorescences, with unbranched lateral branches which become progressively shorter toward the inflorescence apex, thereby giving a conic appearance. Chinese material has heretofore been confused with *Boehmeria polystachya*, which can be distinguished from *B. conica* by its narrower leaves with serrate margins and many transversely parallel secondary veins, much more irregular and rebranched inflorescences, and narrowly rhomboid-obvoid fruiting perianth tube with a cuneate base.


八棱麻 ba leng ma

*Boehmeria chiangmaiensis* Yahara; *B. spirei* Gagnepain.

Shrubs or small trees, simple or branched distally, 1–3 m tall, to 1.5 cm in diam.; upper stems, branches, and petiolar sparsely or densely strigose. Dioecious or monoecious. Buds ovoid, 2–5 mm; scales triangular-ovate. Leaves opposite, subequal in size; stipules lanceolate, 7–10 mm; petiole 0.3–1.2 cm; leaf blade light green when dry, narrowly ovate, elliptic, or rarely oblong, 5–15 × 2–8 cm, thickly papery, secondary veins 3 or 4 each side of midvein, abaxial surface with reticulate vein prominent, both surfaces sparsely appressed strigose, base subcordate or rounded, slightly oblique, margin serrulate, apex acuminate or shortly acuminate. Glomerules on axillary, densely congested, spikelike shoots, simple in distal part of twigs or in groups of 2 or more in axils of fallen leaves; male ones in lower axils, 4–6 cm; female ones in distal axils; bracts scarious, ovate, ca. 3 mm. Male flowers 4-merous, sessile; perianth lobes elliptic, 1.8–2 mm, densely puberulent, connate at middle; rudimentary ovule obovoid, ca. 0.4 mm. Fruiting perianth tube fusiform or narrowly rhomboid-obvoid, compressed, 1.8–2 mm, patent puberulent all over, base cuneate, apex long necked, 2–3-toothed. Fl. Mar–Apr, fr. Sep–Oct.

Secondary forests; ca. 300 m. SW Yunnan.


长叶苎麻 chang ye zhu ma

*Boehmeria macrophylla* D. Don, Prodr. Fl. Nepal. 60. 1825, not Horne mann (1815), nor (Thunberg) Siebold & Zuccarini (1846).

Shrubs erect, sometimes with trailing branches, 1.5–4.5 m tall; branchlets 4-angled, 4-grooved, often densely strigillose. Dioecious or monoecious. Leaves opposite, slightly unequal in size; stipules narrowly triangular-lanceolate, 1.3–1.8 cm; petiole 0.6–3 cm, often strigillose; leaf blade lanceolate or linear-lanceolate, 5–29 × 1.5–6.4 cm, thickly papery, secondary veins 3 or 4 pairs along midvein, abaxial surface sparsely or densely pubescent along veins, adaxial surface often strongly rugose, glabrous or sparsely strigillose, but roughened, base obtuse, rounded, or subcordate, margin minutely serrulate, teeth revolute, apex long acuminate or caudate. Glomerules on spikelike flowering shoots; female glomerules congested, 4–8 mm in diam.; male spikes often in pairs, in proximal axils, shorter than female spikes; female spikes unbranched, in distal axils, nodding, 4–32 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.2 mm, sparsely puberulent, connate at base; rudimentary ovule ellipsoid, ca. 0.5 mm. Fruiting perianth tube narrowly cuneate, oblancoate or fusiform, compressed, 1–2.2 mm, sparsely strigillose on shoulder, base with stipule ca. 1.2 mm, 2-toothed at apex of very short neck; achenes oblong-ovoid, ca. 0.5 mm, base long stipitate. Fl. Apr–Jun, fr. Jul–Oct.

Forest margins, along streams, thickets, valleys; 500–2000 m. SW Guangxi, SW Guizhou, SW Sichuan, SE Xizang, Yunnan [Bhutan, N India, Laos, Nepal, Myanmar, Sikkim, Thailand, Vietnam].


密花苎麻 mi hua zhu ma


Shrubs 1–2 m tall, dioecious or monoecious; branches often densely strigose. Dioecious or monoecious. Leaves opposite, subequal in size; stipules lanceolate, 5–8 mm, free or
sometimes connate at base; petiole 0.5–2.5 cm, often strigillose; leaf blade ovate to ovate-lanceolate, 5–19(–24) × 2–4(–6.4) cm, thinly papery, secondary veins 2 or 3 each side of midvein, abaxial surface pubescent along veins, adaxial surface sometimes slightly rugose, densely appressed strigillose, base obtuse or broadly cuneate, margin flattened serrulate, apex acuminate. Glomerules on specialized axillary spikelike shoots; male shoots often paired, in proximal axils in monoecious plants, 3–10 cm; female spikes solitary, nodding, 4–18 cm. Male flowers 4-merous, sessile; perianth lobes elliptic, ca. 1.3 mm, sparsely puberulent, connate at base. Fruiting perianth fusiform or oblanceolate, compressed, 1–1.5 mm, sparsely strigillose on shoulder, base with stipe ca. 0.8 mm, apex with very short neck, attenuate, 2-toothed, stigma 0.7–1 mm. Fl. Apr–May; fr. Jun–Sep. River banks, exposed rocky slopes, roadsides; 100–1200 m. Guangdong, Taiwan [Japan, Philippines].