

79. DYSOPHYLLA Blume, Bidjr. 826. 1826.

水蜡烛属 shui la zhu shu

Herbs. Stems hollow. Leaves 3–10, in whorls, rarely opposite, sessile, linear to oblanceolate, margin entire or remotely dentate, usually subglabrous. Verticillasters many flowered, in continuous or rarely interrupted terminal spikes; bracts slightly shorter to as long as flowers. Flowers sessile. Calyx campanulate, hairy outside, glabrous inside, short 5-toothed, usually without crystals. Corolla exerted, tube gradually widened at apex, limb 4-lobed; lobes subequal, posterior lobe entire or emarginate. Stamens 4, exerted; filaments long, subequal, straight, bearded; anthers subglobose, 1-locular. Style subequal to stamens, apex 2-cleft; lobes equal, subulate. Disc ringlike, subentire. Nutlets subglobose, smooth.

About 27 species: Asia (the majority in India), one in Australia; seven species in China.

Many workers regard *Dysophylla* to be synonymous with *Pogostemon*.

- 1a. Calyx 5-sulcate; spikes subcapitate, 1–2.7 cm × 8–9 mm; leaves 1–2 cm × 2.5–3.2 mm 5. *D. pentagona*
- 1b. Calyx not grooved; spikes longer.
 - 2a. Stems hairy.
 - 3a. Leaf margins entire, strongly revolute; stem yellow strigose 3. *D. cruciata*
 - 3b. Leaves ± dentate.
 - 4a. Stems appressed strigose; leaves 1.2–3.5 cm × 1.8–3.8 mm, margin remotely shallow serrate 4. *D. szemaensis*
 - 4b. Stems glandular rust colored pilose; leaves 2.5–7.5 cm × 2–4.5 mm, margin entire or apex obscurely to remotely serrate 7. *D. linearis*
 - 2b. Stems subglabrous.
 - 5a. Leaves 3.5–4.5 cm × 5–7 mm, entire, apex obscurely remote serrate 6. *D. yatabeana*
 - 5b. Leaves shorter, conspicuously serrate.
 - 6a. Leaves linear to lanceolate, 1.5–4(–7.5) mm wide, abaxially gray 1. *D. stellata*
 - 6b. Leaves oblong to obovate, 4–8 mm wide, abaxially greenish 2. *D. sampsonii*

1. *Dysophylla stellata* (Loureiro) Benth. Pl. Asiat. Rar. 1: 30. 1830.

水虎尾 shui hu wei

Mentha stellata Loureiro, Fl. Cochinch. 2: 361. 1790; *Dysophylla benthamiana* Hance; *D. benthamiana* var. *hainanensis* C. Y. Wu & Hsuan; *D. benthamiana* var. *intermedia* C. Y. Wu & Hsuan; *D. esquirolii* H. Léveillé; *D. japonica* Miquel; *D. stellata* var. *hainanensis* (C. Y. Wu & Hsuan) C. Y. Wu & H. W. Li; *D. stellata* var. *intermedia* (C. Y. Wu & Hsuan) C. Y. Wu & H. W. Li; *D. verticillata* (Roxburgh) Benth.; *Eusteralis pumila* Rafinesque-Schmaltz; *M. verticillata* Roxburgh; *Pogostemon benthamianus* Kuntze; *P. verticillatus* Miquel.

Herbs annual. Stems erect, 15–40 cm, base to 1 cm in diam., glabrous, nodes sometimes gray villous, lower internodes short. Leaves in whorls of 4–8, linear to lanceolate, 2–7 cm × 1.5–4(–7.5) mm, glabrous, abaxially gray, base attenuate, margin remotely serrulate or entire, revolute or flat, apex acute. Spikes 0.5–7(–9) cm × 4–6.5(–8) mm, continuous, compact; bracts lanceolate, conspicuously longer than calyx. Calyx densely gray tomentose outside, ca. 12 × 1 mm; fruiting calyx to 1.8 mm. Corolla purple-red, 1.8–2 mm, lobes subequal. Nutlets brown, obovoid. Fl. and fr. year round.

Rice paddies, wet areas along streams; 300–1500 m. Anhui, Fujian, Guangdong, Guangxi, Hainan, Hunan, Jiangxi, Yunnan, Zhejiang [Bangladesh, Bhutan, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Thailand, Vietnam; Australia].

2. *Dysophylla sampsonii* Hance, Ann. Sci. Nat. Bot., sér. 5, 5: 234. 1866.

齿叶水蜡烛 chi ye shui la zhu

Dysophylla tsangii Sun ex C. H. Hu.

Herbs annual. Stems erect to trailing at base, 15–50 cm tall, basal internodes short, glabrous, reddish. Leaves in whorls of 3(–5), rarely opposite, obovate-oblong to

oblanceolate, 0.9–6.2 cm × 4–8 mm, papery, glabrous, densely black glandular, base attenuate, margin conspicuously serrate except basal 1/3 entire, apex obtuse to acute. Spikes 1.2–7 × ca. 0.8 cm; rachis glandular villous; bracts ovate-lanceolate, scarcely longer than calyx, reddish. Calyx broadly campanulate, ca. 1.4 × 1.4 mm, pubescent, basally yellow glandular outside, purplish red; teeth ovate, more than 1/3 as long as calyx. Corolla purple-red, ca. 2 mm, lobes subequal. Stamens much exerted; filament hairs purplish red. Nutlets dark brown, ovoid, ca. 0.7 × 0.5 mm, shiny. Fl. Sep–Oct, fr. Oct–Nov.

• Marshy areas, beside water. Guangdong, Guangxi, Guizhou, Hunan, Jiangxi.

3. *Dysophylla cruciata* Benth. Pl. Asiat. Rar. 1: 30. 1830.

毛茎水蜡烛 mao jing shui la zhu

Dysophylla tetraphylla Wight; *Mentha quadrifolia* D. Don; *Pogostemon cruciatum* (Benth.) Kuntze.

Herbs annual. Stems erect, 18–45 cm tall, sometimes branched from base, yellow strigose, lower internodes short. Leaves sessile, obliquely spreading, in whorls of 4, linear, 1.3–3.5 cm × 2.5–4 mm, papery, strigose, base broad, margin entire and strongly revolute, apex acute. Spikes 1.5–10 cm × 7–8 mm, compact; bracts linear to narrowly lanceolate, as long as calyx to longer than corolla, gray strigose, gray-purple. Calyx ca. 1.5 × 1.2 mm, villous outside; teeth ovate-triangular, ca. 1/3 as long as calyx tube. Corolla ca. 2 × as long as calyx, purplish red, ca. 4 mm, villous outside, limb subequally 4-lobed. Stamens much exerted. Nutlets dark brown, minute, shiny. Fl. Sep–Nov, fr. Nov.

Marshy areas, waste areas; 1100–1500 m. Yunnan [Cambodia, India, Laos, Nepal, Vietnam].

4. *Dysophylla szemaensis* C. Y. Wu & Hsuan, Acta Phytotax. Sin. 10: 238. 1965.

思茅水蜡烛 si mao shui la zhu

Herbs annual. Stems ascending, trailing at base, 20–30 cm tall, branched, apex appressed strigose, basally subglabrous, reddish. Leaves in whorls of 4, linear, 1.2–3.5 × 1.8–3.8 cm, adaxially appressed ciliate, abaxially densely black glandular, densely ciliate on midrib and margin, margin remotely shallow serrate, flat or slightly revolute, apex acuminate. Spikes 1.2–6 cm × ca. 7 mm, continuous; bracts linear-lanceolate, almost as long as corolla, gray villous, grayish purple-red. Calyx ca. 1.2 × 1 mm, pilose outside. Corolla purplish, ca. 2 × as long as calyx. Nutlets unknown.

- Aquatic; 1000 m. Yunnan.

5. *Dysophylla pentagona* C. B. Clarke ex J. D. Hooker, Fl. Brit. India 4: 641. 1885.

五棱水蜡烛 wu leng shui la zhu

Herbs annual. Stems 10–40 cm tall, erect-ascending, base trailing, glabrous. Leaves in whorls of 4, linear to oblanceolate, 1–2 × 2.5–3.2 cm, glabrous, abaxially sparsely glandular, base attenuate, margin entire or slightly revolute, apex obtuse. Spikes subcapitate, 1–2.7 cm × 8–9 mm; bracts purple, lanceolate, slightly longer than calyx, margin gray villous. Calyx ca. 1 × 0.8 mm, pilose, glandular, 5-sulcate. Corolla reddish, ca. 2 × as long as calyx. Stamens much exerted. Nutlets unknown.

Aquatic, marshy streamsides; 900–1500 m. Yunnan [India].

Specimens from Yunnan do not have the slender, erect stems and slender spikes as described by C. B. Clarke for Indian plants. This may be due to local variation.

6. *Dysophylla yatabeana* Makino, Bot. Mag. (Tokyo) 12: 55. 1898.

水蜡烛 shui la zhu

Dysophylla linearis Benth. var. *yatabeana* (Makino) Kudô; *D. lythroides* Diels; *D. martini* Vaniot.

Herbs perennial. Stems 40–60 cm tall, glabrous except for puberulent apex, usually unbranched or rarely short branched. Leaves in whorls of 3 or 4, narrowly lanceolate, 3.5–4.5 cm × 5–7 mm, papery, glabrous, inconspicuously brown glandular, margin entire or obscurely remote serrate toward apex, apex obtuse. Spikes 2.8–7 × ca. 1.5 cm, compact, sometimes interrupted at base; bracts purplish, linear-lanceolate, almost as long as corolla. Calyx ovoid-campanulate, 1.6–2 mm, pilose and rust colored glandular outside; teeth triangular, ca. 1/2 as long as calyx tube. Corolla purple-red, ca. 2 × as long as calyx, glabrous, limb subequally 4-lobed. Stamens much exerted; filaments densely purple-red barbate. Nutlets unknown. Fl. Aug–Oct.

Rice paddies, open wet areas. Anhui, Guizhou, Hunan, Zhejiang [Japan, Korea].

7. *Dysophylla linearis* Benth. Prodr. 12: 157. 1848.

线叶水蜡烛 xian ye shui la zhu

Herbs annual. Stems ca. 80 cm tall, base trailing, glabrescent, rust colored, glandular pilose. Leaves in whorls of 4–6, linear-lanceolate, 2.5–7.5 cm × 2–4.5 mm, papery, adaxially puberulent, abaxially glandular pubescent on midrib otherwise glandular, margin entire or obscurely remote serrate toward apex, slightly revolute, apex acuminate. Spikes ca. 4.5

× 1.2 cm, base interrupted; bracts lanceolate, at least as long as corolla, apex purple-red. Calyx narrowly campanulate, ca. 3 × 1.6 mm, sparsely pubescent; teeth suberect. Corolla ca. 1.5 × as long as calyx, puberulent outside, limb subequally 4-lobed. Stamens much exerted; filaments bearded. Nutlets unknown.

Wet areas. Yunnan [India].

