

78. POGOSTEMON Desfontaines, *Mém. Mus. Hist. Nat.* 2: 154. 1815.

刺蕊草属 *ci rui cao shu*

Herbs or subshrubs. Stems solid. Leaves petiolate or sessile, ovate to narrowly ovate, rarely linear to falcate, margin dentate, ± hairy or tomentose. Verticillasters regular or secund, in continuous or interrupted spikes, thyrses, or panicles; bracts and bracteoles linear to ovate. Calyx ovoid-tubular or campanulate, equally or subequally 5-toothed, with crystals. Corolla limb nearly 2-lipped, upper lip 3-lobed, lower lip entire, as long as to slightly longer than upper. Stamens 4, exerted, erect, free; filaments bearded at middle; anthers globose, 1-locular, cell apex dehiscent. Style apex 2-cleft, lobes subulate, equal or subequal. Nutlets ovoid to globose, slightly flattened, smooth.

About (40–)60 species: Africa, Asia; 16 species in China.

- 1a. Inflorescences interrupted spicate racemes.
 - 2a. Subrepent herbs, base prostrate, with adventitious roots.
 - 3a. Stems and leaves densely yellow hirsute or yellow strigose; petioles rarely to 1.2 cm; upper leaves sessile 15. *P. auricularius*
 - 3b. Apical part of stems and rachises glandular hairy, pubescent; leaves adaxially glabrescent, abaxially strigose along veins or subglabrous and glandular; petioles 1–4 cm, glandular hairy or pubescent, glabrescent 14. *P. menthoides*
 - 2b. Erect herbs.
 - 4a. Leaves long falcate, 4–7 mm wide 16. *P. falcatus*
 - 4b. Leaves not long falcate, 15–30 mm wide.
 - 5a. Leaves ovate-lanceolate to elliptic, lateral veins 8- or 9-paired; calyxurceolate-campanulate, 2.5×3 mm 12. *P. hispidocalyx*
 - 5b. Leaves ovate, lateral veins 3-paired; calyx tubular-campanulate, 3–3.5 mm 13. *P. nigrescens*
- 1b. Inflorescences spikes in panicles.
 - 6a. Calyx 2–2.5 mm; corolla shorter than calyx; spikes interrupted 6. *P. brevicorollus*
 - 6b. Calyx more than 3 mm; corolla subequal to longer than calyx.
 - 7a. Anterior filaments glabrous; plants densely minutely hispid 11. *P. xanthiifolius*
 - 7b. All filaments bearded.
 - 8a. Calyx more than 6 mm, densely tomentose outside; leaves circular to broadly ovate; cultivated plants. 5. *P. cablin*
 - 8b. Calyx 3–5 mm, not tomentose outside.
 - 9a. Bracts and bracteoles linear-lanceolate to linear; leaves rhombic-lanceolate to ovate, apex acute to short acuminate, base cuneate-attenuate 4. *P. formosanus*
 - 9b. Bracts and bracteoles oblong-lanceolate to ovate; leaves ovate, rhombic-ovate, to ovate-lanceolate.
 - 10a. Bracteoles slightly shorter than to longer than calyx.
 - 11a. Calyx subtubular, teeth narrowly triangular, subequal or 2 shorter, ca. 1/3 as long as calyx tube 1. *P. chinensis*
 - 11b. Calyx narrowly campanulate, teeth triangular, 1/3–1/2 as long as calyx tube.
 - 12a. Calyx teeth ca. 1/3 as long as calyx; corolla ca. 7 mm 3. *P. championii*
 - 12b. Calyx teeth ca. 1/2 as long as calyx; corolla 4–5 mm 2. *P. septentrionalis*
 - 10b. Bracteoles to slightly more than 1/2 as long as calyx.
 - 13a. Calyx ca. 3 mm; spikes (3–)5–20 cm×7–8 mm; stems, branches, and leaves glabrescent 7. *P. glaber*
 - 13b. Calyx more than 3.5 mm; spikes rather robust; stems, branches, and leaves hairy.
 - 14a. Leaves lanceolate; corolla ca. 8 mm 8. *P. dielsianus*
 - 14b. Leaves ovate to broadly ovate; corolla ca. 6 mm.
 - 15a. Lobes of style 2–2.5 mm; calyx pubescent 10. *P. griffithii*
 - 15b. Lobes of style ca. 1.5 mm; calyx sparsely pubescent on veins or villous (in var. *singpingensis*) 9. *P. esquirolii*

1. Pogostemon chinensis C. Y. Wu & Y. C. Huang, *Fl. Yunnan* 1: 742. 1977.

长苞刺蕊草 *chang bao ci rui cao*

Herbs erect, 0.5–2 m tall. Stems green or brown when dry, strigose, slightly dilated at nodes. Petiole obsolete to 6 cm; leaf blade ovate, 5–10(–13) × 2–6(–7) cm, papery or ± membranous, adaxially strigose, abaxially strigose along veins, base cuneate-attenuate, margin double serrate to double crenate-serrate, apex acuminate; lateral veins 3-paired. Spikes 1.5–7 cm×8–9 mm, terminal and axillary, interrupted or continuous, pedunculate; verticillasters ± secund; peduncle 0.5–2 cm, densely strigose; bracteoles ovate-lanceolate, elliptic, to ovate, 3–4 mm, strigose or sometimes glandular. Calyx subtubular, 3–4 mm, strigose, sparsely glandular

outside; teeth narrowly triangular, subequal, or 2 smaller, ca. 1/3 as long as calyx tube, strigose inside, ciliate. Corolla reddish, subequal to slightly longer than calyx; upper lip minutely hirsute outside. Stamens bearded at middle. Style almost as long as stamens. Fl. Jul–Nov.

• Streamsides, grasslands; 1500 m. Guangdong, Guangxi, Yunnan.

2. Pogostemon septentrionalis C. Y. Wu & Y. C. Huang, *Fl. Reipubl. Popularis Sin.* 66: 585. 1977.

北刺蕊草 *bei ci rui cao*

Herbs or subshrubs 1.5–2 m tall. Stems finely strigose, slightly dilated at nodes. Petiole 0.5–3(–4) cm; leaf blade ovate to rhombic-ovate, 4–10(–11) × 2–5(–7) cm, herbaceous,

finely strigose, base cuneate to cuneate-attenuate, margin irregularly double dentate, apex short acuminate; lateral veins ca. 4-paired, conspicuously elevated abaxially. Spikes 1–5(–7) cm, densely strigose, cymes sessile or short pedunculate, unbranched or in panicles; peduncle 0.5–1.5(–2) cm; bracteoles lanceolate, oblong-lanceolate, to ovate-lanceolate, slightly shorter to as long as calyx. Calyx narrowly campanulate, 3.5–4 mm, pubescent outside, sometimes only on veins, glandular, pubescent on teeth inside; teeth equal, triangular, apex acute, ca. 1/2 as long as calyx tube, ciliate. Corolla purple, nearly as long to slightly longer than calyx, 4–5 mm. Stamens slightly exerted, bearded at middle. Nutlets subglobose.

- Guangdong, Jiangxi.

3. *Pogostemon championii* Prain, Bull. Misc. Inform. 1908: 254. 1908.

短穗刺蕊草 duan sui ci rui cao

Subshrubs suberect, few branched. Stems and branches sparsely pubescent. Petiole 1–1.3 cm; leaf blade ovate-lanceolate, 6–8 × 2.5–4 cm, membranous, sparsely appressed pubescent especially along veins, base cuneate, margin obscurely double crenate, entire at base, apex acuminate. Spikes ovoid-cylindric, 1.5–3.5 × 1 cm, continuous, appressed pubescent; verticillasters in loose panicles on branch apices; peduncle ca. 5 mm; bracts ovate-lanceolate, ca. 3 mm. Calyx narrowly campanulate, ca. 4 mm, pubescent outside; teeth triangular, apex acute, equal, ca. 1/3 as long as calyx. Corolla purplish, ca. 7 mm, glabrous, margin sparsely ciliate pubescent, lobes subequal. Filaments bearded. Style lobes subequal, ca. 1.5 mm. Nutlets broadly ovoid, smooth.

- Guangdong.

4. *Pogostemon formosanus* Oliver, Hooker's Icon. Pl. 25: t. 2440. 1896.

台湾刺蕊草 tai wan ci rui cao

Herbs branched. Stems and branches pubescent, glabrescent. Petiole to 4.5 cm; leaf blade rhombic-lanceolate to ovate, 4–10 × 1–5 cm, ± membranous, finely strigose, adaxially glabrescent, abaxially inconspicuously glandular, base cuneate-attenuate, margin entire basally, irregularly incised toward apex, apex acute to short acuminate; lateral veins 2- or 3-paired. Spikes 2–8 cm, terminal or axillary, cymes (1–)5–8-flowered, short pedunculate or sessile, in 3's on stem and branch apices; bracts and bracteoles linear-lanceolate to linear, 2–3 mm, ciliate. Flowers sessile or subsessile. Calyx subtubular, ca. 4 mm, membranous, sparsely pubescent outside; teeth subulate-lanceolate, equal, ciliate, ca. 1/3 as long as calyx tube. Corolla purplish, ca. 5 mm, slightly exerted. Bearded portions of stamens included. Nutlets ovoid.

- Taiwan.

5. *Pogostemon cablin* (Blanco) Benth, Prodr. 12: 156. 1848.

广藿香 guang huo xiang

Mentha cablin Blanco, Fl. Filip. 473. 1837; *Pogostemon javanicus* Backer ex Adelbert; *P. patchouly* Pelletier; *P. patchouly* var. *suavis* J. D. Hooker.

Herbs or subshrubs, perennial, aromatic. Stems erect, 30–100 cm tall, tomentose. Petiole 1–6 cm; leaf blade circular to broadly ovate, 2–10.5 × 1–8.5 cm, herbaceous, adaxially

dark green, sparsely tomentose, abaxially tomentose, base cuneate-attenuate, margin irregularly incised, apex obtuse to acute; lateral veins ca. 5-paired. Spikes 4–6.5 × 1.5–1.8 cm, densely tomentose, terminal and axillary; verticillasters 10- to many flowered, basally somewhat lax; peduncle 0.5–2 cm; bracts and bracteoles linear-lanceolate, somewhat shorter than to as long as calyx, densely tomentose. Calyx tubular, 7–9 mm, tomentose outside, minutely tomentose inside; teeth subulate-lanceolate, ca. 1/3 as long as calyx tube. Corolla purple, ca. 1 cm, lobes villous outside. Stamens bearded. Fl. Apr.

Fujian, Guangdong, Guangxi, Hainan, Taiwan [India, Indonesia, Malaysia, Philippines, Sri Lanka].

Cultivated in China. Source of patchouly oil, an essential oil obtained from the leaves and used in soaps and perfumes. Employed in scenting carpets and shawls. It is also used medicinally.

6. *Pogostemon brevicorollus* Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 49. 1966.

短冠刺蕊草 duan guan ci rui cao

Herbs or subshrubs. Stems erect, branched, pubescent, glabrescent. Petiole 1–3 cm; leaf blade lanceolate-ovate to ovate, 6–13 × 1.5–6.5 cm, adaxially dark green, sparsely puberulent, abaxially minutely hispid on veins, base cuneate, margin double serrate except entire at base, apex acuminate. Spikes sessile, terminal and axillary, (2–)4–9(–11) cm, interrupted; verticillasters globose, 6–8 mm in diam., 12–14-flowered. Calyx ovoid-tubular, 2–2.5 mm, subglabrous or pubescent along veins outside; teeth triangular, equal, ca. 0.5 mm, ciliate, closed in fruit. Corolla shorter than to subequaling calyx, 2–2.1 mm, glabrous outside; tube ca. 1.6 mm, lobes subequal, triangular, apex obtuse; bearded portions of filaments included. Nutlets black, obovoid, ca. 0.8 mm. Fl. and fr. Sep–Nov.

- Valleys, forests; 1200–2300 m. Sichuan, Yunnan.

7. *Pogostemon glaber* Benth, Labiat. Gen. Spec. 154. 1833.

刺蕊草 ci rui cao

Herbs erect. Stems 0.5–2 m tall, villous, glabrescent. Petiole to 6 cm, obsolete in uppermost leaves; leaf blade ovate, 5–8(–10) × 2.5–5 cm, adaxially strigose-villous or subglabrous, abaxially pilose along veins otherwise glabrous, base broadly cuneate to rounded or subcordate, margin double serrate, apex acuminate; lateral veins 5-paired. Spikes (3–)5–20 cm × 7–8 mm, terminal and axillary; verticillasters many flowered; peduncle 0.5–4 cm; bracteoles ovate, 1–1.5 mm, ciliate. Calyx ovoid-tubular, ca. 3 mm, glabrous or pubescent outside, sparsely pubescent on teeth but otherwise glabrous inside; teeth equal, triangular, ca. 1/3 as long as calyx tube. Corolla white or whitish, ca. 5 mm, upper lip bearded outside, lower lip glabrous. Exserted portion of filaments nearly as long as corolla. Nutlets globose. Fl. and fr. Nov–Mar.

Hills, waste areas, valleys, forests; 1300–2700 m. Yunnan [Bangladesh, Bhutan, Cambodia, India, Laos, Myanmar, Nepal, Thailand].

Used medicinally.

8. *Pogostemon dielsianus* Dunn, Notes Roy. Bot. Gard. Edinburgh 8: 159. 1913.

狭叶刺蕊草 xia ye ci rui cao

Shrubs branched, 1.3–2.7 m tall. Stems terete, glabrous. Petiole 5–10 mm; leaf blade lanceolate, 10–14 cm, papery, sparsely strigose-puberulent, base acuminate, margin serrate, apex acuminate. Thyrses terminal, ca. 4 cm, continuous, many leaved, densely appressed pubescent except for corolla; verticillasters sessile, 10–14-flowered, 1–1.5 cm. Calyx tubular, 3.5–4×1–1.2 mm; teeth acute, 1/5–1/4 as long as calyx tube. Corolla rose, ca. 8 mm; tube cylindric, slightly dilated at throat, lobes subequal. Stamens lanate at middle, ca. 3× as long as corolla (specimens not seen).

- Thickets on stony slopes; 1600–2000 m. Yunnan.

9. *Pogostemon esquirolii* (H. Léveillé) C. Y. Wu & Y. C. Huang, Fl. Yunnan. 1: 743. 1977.

膜叶刺蕊草 mo ye ci rui cao

Herbs or subshrubs. Stems 1–1.5 m tall, pubescent, subglabrescent. Petiole 1.5–7 cm; leaf blade ovate, to 12×7(–9) cm, membranous or ± papery, base abruptly attenuate to cuneate-attenuate, rarely rounded, margin double crenate to double serrate, apex acuminate; lateral veins 5-paired. Spikes subcylindric, continuous or rarely interrupted, 3–7 (–15) cm, terminal and axillary; verticillasters many flowered; peduncle 1–2.5 cm, densely villous; bracteoles ovate, 1/3–1/2 as long as calyx, glabrous or subglabrous, ciliate. Calyx subtubular, 4–5 mm, glabrous or sparsely pubescent along veins; teeth equal, narrowly triangular, ca. 1/3 as long as calyx tube, hirsute inside, ciliate. Corolla white or purplish, 6–7 mm, lobes bearded outside. Stamens ca. 2× as long as corolla, bearded parts exserted. Fl. Dec–Apr.

- Streamsides, hills, valleys; to 2000 m. Guangxi, Guizhou, Hainan, Yunnan.

- 1a. Stems, abaxial leaf surface, bracteoles, and calyx veins pubescent or subglabrous 9a. var. *esquirolii*
- 1b. Stems, abaxial leaf surface, bracteoles, and calyx villous 9b. var. *tsingpingensis*

9a. *Pogostemon esquirolii* var. *esquirolii*

膜叶刺蕊草 mo ye ci rui cao

Caryopteris esquirolii H. Léveillé, Repert. Spec. Nov. Regni Veg. 9: 449. 1911.

Stems, abaxial leaf surface, bracteoles, and outer part of calyces pubescent or subglabrous.

- Streamsides, valleys; to 2000 m. Guangxi, Guizhou, Hainan, Yunnan.

Used medicinally.

9b. *Pogostemon esquirolii* var. *tsingpingensis* C. Y. Wu & Y. C. Huang, Fl. Yunnan. 1: 744. 1977.

金平变种 jin ping bian zhong

Stems, abaxial leaf surface, bracteoles, and outer part of calyces villous.

- Open situations in hills; 1400 m. Yunnan.

10. *Pogostemon griffithii* Prain var. *latifolius* C. Y. Wu & Y. C. Huang, Fl. Yunnan. 1: 744. 1977.

宽叶长柱刺蕊草 kuan ye chang zhu ci rui cao

Herbs. Stems erect, to 2 m tall, densely appressed pubescent. Petiole 0.5–1.5 cm; leaf blade ovate to broadly ovate, 5.5–8.5×3.5–5.8 cm, herbaceous, adaxially appressed pubescent, abaxially densely pubescent, base obtuse, margin irregularly double serrate, apex acute; lateral veins 3-paired, conspicuously raised abaxially. Spikes cylindric, (1.5–)5–10×ca. 1.2 cm, terminal and axillary; verticillasters many flowered, densely appressed pubescent; peduncle 0.5–3.5 cm; bracteoles ovate-lanceolate to lanceolate, 2–2.5 mm, densely pubescent, ciliate. Calyx narrowly campanulate, 4–5 mm, pubescent outside; teeth equal, triangular-lanceolate, ca. 1/2 as long as calyx tube. Corolla bluish, ca. 6 mm, sparsely pubescent on upper lip outside. Bearded parts of stamens exserted. Fl. Mar.

- Dense valley forests; 700 m. Yunnan (Ximeng Xian).

Pogostemon griffithii var. *griffithii* in Myanmar has leaves 10×2.5–3 cm. Calyx ca. 4 mm; spikes 2–6 cm×8 mm. *Pogostemon griffithii* var. *latifolius* may be only a form, but more material is needed for resolution.

11. *Pogostemon xanthiifolius* C. Y. Wu & Y. C. Huang, Fl. Yunnan. 1: 744. 1977.

苍耳叶刺蕊草 cang er ye ci rui cao

Herbs. Stems ca. 1 m tall, much branched; branches and stems densely minutely hispid, slightly swollen at nodes. Petiole 0.5–4 cm; leaf blade ovate to broadly ovate, 3–8×2–7 cm, densely minutely hispid, adaxially dark green, base broadly cuneate to rounded, margin double incised-serrate, apex acute to short acuminate; lateral veins ca. 3-paired. Spikes terminal and axillary, solitary or in 3's, 2–11 cm, interrupted basally, of 3–14 verticillasters; peduncle 0.5–2 cm, densely minutely hispid; bracteoles sessile, oblong-lanceolate to broadly lanceolate, slightly shorter than calyx, midrib sparsely hispid, margin minutely hispid. Calyx tubular, ca. 4 mm, sparsely and minutely hispid on veins, sparsely pubescent inside; teeth subequal, triangular-lanceolate, ca. 1/3 as long as calyx tube, margin rigidly ciliate. Corolla white, as long as to slightly longer than calyx. Posterior filaments longer, bearded at middle, anterior 2 glabrous. Nutlets unknown. Fl. Oct.

- Forests, forest margins; 700–800 m. Yunnan.

12. *Pogostemon hispidocalyx* C. Y. Wu & Y. C. Huang, Fl. Yunnan. 1: 745. 1977.

刚毛萼刺蕊草 gang mao e ci rui cao

Herbs erect, slender. Stems 40–65 cm tall, unbranched or few branched, pubescent or glabrescent. Petiole 1–2 cm, strigose; leaf blade ovate-lanceolate to elliptic, 4.5–6×1.6–2.8 cm, ± membranous, adaxially strigose to subglabrescent, abaxially strigose along veins, glandular, base cuneate to attenuate, margin double serrate, apex acuminate; lateral veins 8- or 9-paired. Racemes 3–9.5 cm, terminal or axillary, blackish or dark brown when dry; verticillasters 6 to many, 2–16-flowered; peduncle 1–2 cm, densely pubescent; bracts and bracteoles linear, nearly as long as pedicels, ciliate. Calyx urceolate-campanulate, 2.5–3 mm, sparsely hispid or subglabrous; teeth subulate, subequal. Corolla unknown. Nutlets black, subglobose, ca. 0.8 mm, smooth. Fr. Oct.

- Forests; 2800 m. Yunnan (Fugong Xian).

13. *Pogostemon nigrescens* Dunn, Notes Roy. Bot. Gard. Edinburgh 8: 159. 1913.

黑刺蕊草 *hei ci rui cao*

Pogostemon fraternus Miquel var. *nigrescens* (Dunn) Kudô.

Herbs erect. Stems 30–70 cm tall, few branched, densely pubescent. Petiole 0.5–2 cm; leaf blade ovate, 2.5–6 × 1.5–3 cm, blackish or brownish when dry, adaxially densely appressed pubescent, abaxially pubescent, densely so on veins, glandular, base obtuse to rounded, margin double crenate, apex acute to short acuminate, lateral veins 3-paired. Racemes terminal, 6–11(–19) cm, blackish or dark brown when dry, ± interrupted basally; verticillasters many flowered; rachis densely spreading gray pubescent; bracteoles subulate, rigidly ciliate. Pedicel 1–2 mm, densely spreading gray pubescent. Calyx tubular-campanulate, 3–3.5 mm, densely gray pubescent, throat densely white hirsute annulate; teeth subequal, subulate, margin minutely hispid. Corolla purplish or purple, slightly exserted, 4–4.5 mm; lobes subequal, bearded inside. Filaments moniliform barbate. Nutlets subglobose, adaxially ribbed. Fl. Sep-Oct, fr. Oct-Nov.

- Hills, thickets, forests; 1100–2600 m. Yunnan.

14. *Pogostemon menthoides* Blume, Bijdr. 825. 1826.

小刺蕊草 *xiao ci rui cao*

Pogostemon fraternus Miquel.

Herbs procumbent or diffuse, perennial. Stems ascending, branched, purplish, basally rooting adventitiously, apex glandular hairy. Petiole 1–4 cm; leaf blade ovate to ovate-lanceolate, 2–5.5(–8) × 1.2–3.2 cm, ± membranous or papery, strigose or subglabrous, base rounded to subcordate, margin serrate to double serrate, apex acute to acuminate; lateral veins ca. 3-paired, rather conspicuous. Thyse terminal, 5–16 cm, interrupted, glandular hairy, pubescent; verticillasters 5–11-flowered; peduncle 2.5 cm or more; bracteoles subsubulate, almost as long as pedicels, rigidly ciliate. Pedicel 2–4 mm. Calyx subtubular, 4–5 mm, glandular hairy, hirsute, ± 2-lipped, throat densely hispid annulate; teeth subulate to linear-subulate, margin minutely hispid, 3 of upper lip wider, 2 of lower lip slightly longer. Corolla purplish to 2× as long as calyx, lobes subequal. Stamens bearded. Nutlets subglobose, flattened, adaxially veined. Fl. and fr. Mar-Apr.

Streamsides, wet areas in forests; 400–1200 m. Yunnan [India, Indonesia, Myanmar, Philippines, Thailand, Vietnam].

15. *Pogostemon auricularius* (Linnaeus) Hasskarl, Tijdsch. Nat. Geschied. 10: 127. 1843.

水珍珠菜 *shui zhen zhu cai*

Mentha auricularia Linnaeus, Mant. Pl., ed. 1, 81. 1767; *Dysophylla auricularia* (Linnaeus) Blume; *M. foetida* N. Burman.

Herbs annual. Stems 0.4–2 m tall, prostrate basally, rooting at nodes, ascending, apex much branched, densely yellow spreading hirsute. Petiole rarely to 1.2 cm, upper stem leaves subsessile; leaf blade oblong to ovate-oblong, 2.5–7 × 1.5–2.5 cm, yellow strigose, with scattered impressed glands, base rounded to shallowly cordate, rarely cuneate, margin serrate, apex obtuse to acute; lateral veins 5- or 6-paired, conspicuous abaxially. Spikes 6–18 cm, apex caudate-acuminate, ca. 1 cm in diam. in flower, continuous or sometimes interrupted at base; bracts ovate-lanceolate, as long as corolla, margin strigose. Calyx campanulate, ca. 1 × 1 mm, glabrous, yellow glandular; teeth broadly triangular, ca. 1/4 as long as calyx tube, margin pilose. Corolla purplish to white, ca. 2.5 × as long as calyx, glabrous. Stamens much exserted, exserted parts bearded. Nutlets brown, subglobose, ca. 0.5 mm in diam., glabrous. Fl. and fr. Apr-Nov.

Wet areas in sparse forests, streamsides; 300–1700 m. Fujian, Guangdong, Guangxi, Jiangxi, Taiwan, Yunnan [Cambodia, India (Sikkim), Indonesia, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam].

16. *Pogostemon falcatus* (C. Y. Wu) C. Y. Wu & H. W. Li, Acta Phytotax. Sin. 13: 76. 1975.

镰叶水珍珠菜 *lian ye shui zhen zhu cai*

Dysophylla falcata C. Y. Wu, Acta Phytotax. Sin. 10: 237. 1965.

Herbs erect. Rhizomes woody. Stems 30–40 cm tall, base ± woody, densely appressed hirsute, apex densely gray hairy, subterete, slightly swollen at nodes. Petiole densely silky; leaf blade falcate, 4.5–6.5 cm × 4–7 mm, appressed silky, densely so along veins, base attenuate, margin remotely serrate except for ± entire lower margin, apex acuminate; lateral veins 3–5-paired, conspicuous abaxially. Spikes 4.5–5.5 cm × ca. 6.5 mm, dense, subtended by floral leaves at base; bracts linear, slightly longer than calyx, densely silky. Calyx ca. 1.7 × 1 mm, membranous, pilose outside, teeth short. Corolla red, black when dry, ca. 1.5 × as long as calyx. Filaments black when dry, sparsely hairy. Nutlets unknown. Fl. Oct.

- Rocky areas near water; 800 m. Yunnan (Jinghong Xian).

