

19. MEDINILLA Gaudichaud-Beaupré ex Candolle, Prodr. 3: 167. 1828.

酸脚杆属 suan jiao gan shu

Pseudodissochaeta M. P. Nayar.

Small trees, or erect or scandent shrubs, terrestrial, epiphytic, or rarely climbing. Stems 4-sided or terete, sometimes succulent or corky. Leaves opposite or verticillate, petiolate or sessile; leaf blade usually glabrous, margin entire or dentate. Inflorescences terminal or axillary inserted on leafless stems or at nodes of root stock, cymose or cymose paniculate; bracts small, caducous. Flowers 4(–6)-merous, pedicellate and sometimes bracteolate. Hypanthium cup-shaped, funnel-shaped, campanulate, or tubular. Calyx lobes conspicuous or inconspicuous, apex apiculate. Petals obovate, ovate, or suborbicular, sometimes oblique. Stamens 2 × as many as petals, whorls equal or slightly unequal in shape and length; anthers linear, lanceolate, or oblong, base tuberculate or appendaged, apex beaked, dehiscent by a single pore; connective slightly decurrent forming a spur. Ovary inferior, ovate, apex truncate or with a membranous crown, sometimes septate. Berry globular, ovate, or often urceolate, apex indehiscent. Seeds numerous, obovate to shortly cuneate, small, glabrous or tuberculate.

Between 300 and 400 species: tropical Africa, Asia, and Pacific islands; 11 species (five endemic) in China.

In China *Pseudodissochaeta* has been treated as a synonym of *Medinilla* (the species concerned are *M. assamica*, *M. lanceata*, and *M. septentrionalis*), whereas *Pseudodissochaeta* has also been treated as a separate genus (Fl. Thailand 7(3): 475. 2001). Unpublished molecular data indicate that at least *M. septentrionalis* (*P. septentrionalis*) is not close to *Medinilla*. The fact that the Melastomataceae specialists W. W. Smith, H. L. Li, Kraenzlin, Guillaumin, Nayar, and Chen Cheih allocated the three Chinese species of *Pseudodissochaeta* to six different genera (*Allomorpha*, *Anplectrum* A. Gray, *Diplectria*, *Medinilla*, *Oritrephes* Ridley, *Pseudodissochaeta*) indicates the difficulty of determining their true affinities from morphological data. Additional molecular data are needed to resolve the problem.

- 1a. Leaves 4–8-verticillate, leaf blade oblong, 9–12 × 2.5–3 cm 7. *M. hayatana*
- 1b. Leaves opposite, leaf blade lanceolate, elliptic, or obovate, but not oblong.
 - 2a. Branchlets conspicuously long setose at leaf nodes, seta to 8 mm 6. *M. formosana*
 - 2b. Branchlets not setose at leaf nodes.
 - 3a. Leaf blade elliptic, (2–)6–8.5 × 1–2.8 cm.
 - 4a. Leaves and branchlets not succulent, leaves drying thin-papery; branchlets terete, with thin not corky bark 1. *M. septentrionalis*
 - 4b. Leaves and branchlets succulent, drying subleathery; branchlets angular, with thickly corky bark 4. *M. nana*
 - 3b. Leaf blade larger than above.
 - 5a. Inflorescences 15–30 cm, many-flowered; leaf blade abaxially puberulous, furfuraceous, or finely strigose.
 - 6a. Leaves sessile or subsessile; leaf blade 3.8–11 cm wide 2. *M. assamica*
 - 6b. Leaves with a 0.8–1 cm petiole; leaf blade 3–3.5 cm wide 3. *M. lanceata*
 - 5b. Inflorescences shorter than above, usually few-flowered; leaf blade abaxially glabrous.
 - 7a. Bark of branchlets dark brown with conspicuous white lenticels 5. *M. fengii*
 - 7b. Bark of branchlets usually pale tan (not dark brown), rarely conspicuously lenticellate.
 - 8a. Leaves 3–5-verticillate, leaf blade obovate, 2–3.5(–5) × 1.1–1.5(–2.8) cm 8. *M. arboricola*
 - 8b. Leaves opposite, leaf blade elliptic, 6–23 × 2–11 cm.
 - 9a. Inflorescences terminal or lateral cymes, peduncle 2–3 cm 9. *M. himalayana*
 - 9b. Inflorescences lateral cymes only, usually on leafless branchlets, peduncle 0.5–1 cm.
 - 10a. Leaf blade base subrounded, not decurrent 10. *M. rubicunda*
 - 10b. Leaf blade base cuneate and slightly decurrent 11. *M. petelotii*

1. *Medinilla septentrionalis* (W. W. Smith) H. L. Li, J. Arnold Arbor. 25: 38. 1944.

北酸角杆 bei suan jiao gan

Oritrephes septentrionalis W. W. Smith, J. Proc. Asiat. Soc. Bengal 7: 69. 1911; *Anplectrum yunnanense* Kraenzlin; *Medinilla caerulescens* Guillaumin; *M. caerulescens* var. *nuda* Craib; *Pseudodissochaeta septentrionalis* (W. W. Smith) M. P. Nayar.

Shrubs 1–5(–7) m tall, many branched, erect or sometimes scrambling. Branches terete, glabrous with thin brown bark.

Petiole 0.4–0.9 mm; leaf blade lanceolate, ovate-lanceolate, or broadly ovate, 7–8.5 × 2–2.5 cm, papery, abaxially ± furfuraceous, adaxially glabrous, secondary veins 2 on each side of midvein, base obtuse to subrounded, margin sparsely serrulate apically from middle, apex caudate-acuminate. Inflorescences axillary, cymose, 3.5–5.5 cm, (1 or)3(or 5)-flowered, glabrous; peduncle 1–2.5 cm. Hypanthium campanulate, 4–4.5 mm, densely tuberculate, with very scattered glandular trichomes or glabrous. Calyx lobes inconspicuous, apiculate. Petals pink, lavender, or purplish red, triangular-ovate, 8–10 mm, base slightly oblique, apex acute. Stamens 8, subequal. Longer

(outer) stamens with filaments 4.5–5.5 mm; anthers ca. 7 mm. Shorter stamens with filaments 3–4 mm; anthers ca. 6 mm, base tuberculate. Connective slightly decurrent and forming a short spur. Ovary ovoid, apex 4-undulate. Berry urceolate, ca. 7 × 6 mm. Seeds cuneate, densely tuberculate. Fl. Jun–Sep, fr. Feb–May.

Dense forests, forest margins, damp shady areas; 200–1800 m. Guangdong, Guangxi, Yunnan [Myanmar, N Thailand, Vietnam].

2. *Medinilla assamica* (C. B. Clarke) C. Chen, Acta Phytotax. Sin. 21: 419. 1983.

顶花酸角杆 ding hua suan jiao gan

Anplectrum assamicum C. B. Clarke in J. D. Hooker, Fl. Brit. India 2: 546. 1879; *Allomorphia subsessilis* Craib; *Diplec- tria assamica* (C. B. Clarke) Kuntze; *Medinilla spirei* Guillau- min; *Pseudodissochaeta assamica* (C. B. Clarke) M. P. Nayar; *P. subsessilis* (Craib) M. P. Nayar.

Shrubs or scandent (scrambling) shrubs, 1–4 m tall. Branches 4-angled when young, later terete, glabrous. Leaves very shortly petiolate or sessile; leaf blade ovate, lanceolate-ovate, or elliptic, 10–21 × 3.8–11 cm, leathery, both surfaces minutely tuberculate or adaxially glabrous, abaxially sparsely strigose and furfuraceous, secondary veins 1 or 2 on each side of midvein, base oblique and cordate or rarely obtuse, margin entire or shallowly serrulate, apex acuminate. Inflorescences terminal, cymose paniculate, 15–30 cm. Pedicel 0.5–2 mm. Hypanthium cup-shaped, 3–4 mm, minutely tuberculate, margin slightly undulate. Calyx lobes inconspicuous. Petals 4, pink, broadly ovate, 3–4.5 × ca. 3.5 mm, basally slightly oblique, apex obtuse to subacute. Stamens 8, subequal; filaments ca. 3 mm; anthers lanceolate, ca. 4 mm; connective decurrent, inflated around base of anther and abaxially minutely spurred. Ovary ovoid, 4-celled, apex truncate and entire. Berry globular, 4.5–6 × 4–5 mm, apex truncate. Seeds shortly cuneate, small tuberculate. Fl. Apr–Jun, fr. Oct.

Sparse to dense forests, valleys, hillsides, streamsides, damp places, trailsides; 200–1300 m. Guangdong, Guangxi, Hainan, Xizang (Cona, Médog), Yunnan [India, Laos, Myanmar, N Thailand, Vietnam].

3. *Medinilla lanceata* (M. P. Nayar) C. Chen, Acta Phytotax. Sin. 21: 421. 1983.

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Pseudodissochaeta lanceata M. P. Nayar, J. Bombay Nat. Hist. Soc. 65: 563. 1968; *Medinilla radiciflora* C. Y. Wu.

Shrubs or trees, 2–5 m tall. Branches obtusely 4-sided but later terete; bark corky, longitudinally shedding. Petiole 8–10 mm, slightly pilose; leaf blade lanceolate to ovate-lanceolate, 15–24 × 3–5.5 cm, papery, both surfaces glabrous or abaxially puberulous and slight furfuraceous, secondary veins 1 or 2 on each side of midvein, base rounded to obtuse, margin sparsely shallow serrulate to subentire, apex caudate-acuminate. Inflorescences inserted on leafless stems or on root stock, cymose paniculate, 15–25 cm, puberulous. Pedicel ca. 4 mm, puberulous. Hypanthium campanulate, 5–6 mm, minutely tuberculate.

Calyx lobes inconspicuous, apiculate. Petals broadly ovate, ca. 4.5 × 6 mm, apex obtuse to rounded. Stamens 8, subequal; filaments ca. 7 mm, base tuberculate; connective decurrent, forming a spur. Ovary ovoid, 4-celled, apex 4-dentate. Berry urceolate, ca. 8 × 7 mm, minutely tuberculate, puberulous. Seeds shortly cuneate, scattered small tuberculate. Fl. Aug, fr. Apr or Oct.

• Sparse to dense forests, shaded damp places, valleys, hillsides; 400–1000 m. Hainan, Yunnan.

4. *Medinilla nana* S. Y. Hu, J. Arnold Arbor. 33: 168. 1952.

矮酸脚杆 ai suan jiao gan

Shrubs 15–100 cm tall, often epiphyte, stoloniferous, many-branched. Stems curved ascending, angled to winged, glabrous, later bark corky and wrinkled. Petiole 1–4 mm, glabrous; leaf blade obovate to elliptic, 2–3.5(–5) × 1.1–1.5(–2.8) cm, succulent to subleathery, both surfaces glabrous, secondary veins 1 on each side of midvein, base cuneate, margin basally entire and apically from middle sparsely serrulate, apex obtuse, sub-round, or retuse. Inflorescences terminal cymes, 1–3-flowered; peduncle ca. 5 mm, 4-sided. Pedicel ca. 1 mm. Hypanthium long funnel-shaped, ca. 6 mm, bulging. Calyx lobes ca. 2 mm, margin repand, apex obtuse to acute. Petals 4, pink, obovate, ca. 1.1 cm, slightly oblique, apex truncate. Stamens 8, equal; filaments filiform, ca. 5 mm; anthers ca. 4 mm, base subulate bulging; connective slightly inflated, base decurrent and forming a subulate spur. Ovary inferior, turbinate, 4-celled. Berry urceolate, ca. 10 × 7 mm, small tuberculate. Fl. Jun, fr. Nov.

Dense forests; 1100–2000 m. SE Xizang, Yunnan [Vietnam].

5. *Medinilla fengii* (S. Y. Hu) C. Y. Wu & C. Chen, Fl. Yun- nan. 2: 129. 1979.

西畴酸角杆 xi chou suan jiao gan

Pachycentria fengii S. Y. Hu, J. Arnold Arbor. 33: 170. 1952; *Medinilla taiwaniana* Yuen P. Yang & H. Y. Liu; *P. for- mosana* Hayata.

Shrubs 50–120 cm tall, usually epiphytic, many-branched. Stems subterete or obtusely 4-sided, conspicuous white len- ticles, puberulous or glabrous; bark brown. Petiole 5–12 mm;

leaf blade obovate to elliptic, 4–10 × 2–3.5 cm, leathery, abaxially densely furfuraceous tuberculate but glabrescent, adaxially densely reticulate scrobiculate but glabrescent, secondary veins 1 on each side of midvein, base cuneate, margin entire or sparsely serrulate, apex acuminate to caudate-acuminate. Inflorescences terminal, corymb-panicles, 2–3 × 3–5 cm, 3–6(–16)-flowered. Pedicel 5–10 mm. Hypanthium funnel-shaped, 4–5 mm, minutely tuberculate, glabrous. Calyx lobes 4, ovate, ca. 2 mm, apex rounded and apiculate. Petals 4, pink, broadly obovate, 6–7.5 mm, small tuberculate, apex retuse, truncate, or acute. Stamens 8, subequal, ca. 9 mm; anthers ca. 3.5 mm, bases abaxially slightly decurrent forming a short spur and adaxially subulate bulging. Ovary glabrous, apex dentate. Berry urceolate to subglobose, 6–7 × 4–5 mm. Seeds obovate, glabrous. Fl. May–Jun, fr. Oct–Jan.

• Broad-leaved evergreen forests, shaded damp places, rock crevices; 600–1800 m. Taiwan (Xinzhu), Yunnan.

6. *Medinilla formosana* Hayata, Icon. Pl. Formosan. 2: 110. 1912.

台湾酸角杆 tai wan suan jiao gan

Shrubs, scandent. Branches obtusely 4-sided, scattered lenticellate, glabrous but with a ringed long setose trichomes on nodes. Leaves opposite or verticillate; petiole 5–10 mm, glabrous; leaf blade oblong-obovate to obovate-lanceolate, 10–20 × 7–14 cm, papery, both surfaces glabrous, secondary veins 1 on each side of midvein, base broadly cuneate, margin entire, apex abruptly acuminate with an obtuse tip. Inflorescences terminal or nearly terminal, cymose paniculate, ca. 25 cm, glabrous; bracts linear, ca. 3 mm. Pedicel ca. 6 mm, glabrous. Hypanthium nearly globular, ca. 3 × 2.5 mm, 4-sided, glabrous, apex entire or inconspicuously 4-dentate. Petals 4, obovate, ca. 7 mm, oblique. Stamens 8, equal; filaments ca. 4 mm; anthers narrowly lanceolate, 3–4 mm, base tuberculate; connective decurrent, forming a short spur. Ovary inferior. Berry nearly globular, ca. 7 mm in diam., glabrous. Fl. Dec–Jan.

• Forests, mountain slopes; below 100–1000 m. Taiwan (Hengchun Peninsula).

7. *Medinilla hayatana* H. Keng, Quart. J. Taiwan Mus. 8: 26. 1955 [“*hayataiana*”].

糠秕酸脚杆 kang bi suan jiao gan

Medinilla formosana Hayata var. *hayatana* (H. Keng) S. S. Ying.

Shrubs, scandent. Branches 4-sided, with a setose ring at nodes, scattered lenticellate. Leaves 4-verticillate; petiole ca. 1 cm, brownish furfuraceous; leaf blade oblong, 9–12 × 2.5–3 cm, abaxially minutely brownish furfuraceous, adaxially glabrous, secondary veins 2 on each side of midvein, base obtuse to cuneate, margin entire, apex caudate-acuminate. Inflorescences inserted on leafless branches, cymose paniculate, 15–20 cm; peduncle 3–4 cm, bracteate. Pedicel ca. 5 mm, minutely brownish furfuraceous, bracteolate. Hypanthium urceolate, ca. 6 mm. Calyx lobes 4, inconspicuous. Petals pink, ovate, ca. 9 mm, apex obtuse. Stamens equal; filaments 6–7 mm; anthers linear-lanceolate, 7–8 mm, base tuberculate; connective decurrent, forming a short spur. Ovary globular, glabrous. Berry 3–4 × 3–5 mm. Fl. Jul–Aug.

• Tropical broad-leaved evergreen forests; 400–500 m. Taiwan (Lan Yu).

8. *Medinilla arboricola* F. C. How, Acta Phytotax. Sin. 8: 345. 1963.

附生美丁花 fu sheng mei ding hua

Shrubs scandent or trees, epiphytic. Stems canescent yellow, 4-sided, glabrous, lenticellate; bark corky and wrinkled. Leaves 3–5-verticillate; petiole 0.8–1.5 cm, glabrous; petiole 0.8–1.5 cm, glabrous; leaf blade elliptic to obovate-elliptic, 6–8 × 3–4.5 cm, stiffly papery to subleathery, both surfaces glabrous, secondary veins 1 on each side of midvein, base broadly cuneate, margin entire, apex broadly acute. Inflorescences inserted on leafless stems or branches, cymose, 2–3 cm, 3–5-flowered; peduncle 4–8 mm, glabrous. Flowers 4- or 5-merous. Hypanthium tubular, 0.8–1.2 cm, apex truncate. Calyx lobes inconspicuous, glabrous. Petals greenish, yellowish green, or white, long elliptic, ca. 2 × 0.8–1 cm, oblique, glabrous, base gradually narrowed, apex rounded. Stamens 8–10, equal; filaments 1.2–1.5 cm; anthers linear-lanceolate, curved, unequal, ca. 1.5 or 0.7 cm, base tuberculate; connective decurrent, forming a short spur. Ovary subglobose. Berry subglobose-flask-shaped; hypanthium ca. 1.4 cm, tubular. Fl. Jun–Jul, fr. Aug–Sep.

• Forests, streamsides, on stones, epiphytic on trees, shaded places. Hainan (Baoting).

9. *Medinilla himalayana* J. D. Hooker ex Triana, Trans. Linn. Soc. London 28: 88. 1871.

锥序酸角杆 zhui xu suan jiao gan

Medinilla luchuenensis C. Y. Wu & C. Chen.

Shrubs, epiphytic, many-branched. Branchlets 4-sided, later terete, glabrous; bark corky and wrinkled. Petiole ca. 3 mm, glabrous; leaf blade lanceolate-ovate to elliptic-ovate, 6–16 × 2.2–7 cm, stiffly papery, both surfaces glabrous, adaxially densely scrobiculate, secondary veins 1–2 on each side of midvein, base cuneate, margin entire, apex acute to acuminate. Inflorescences terminal, compound cymes; peduncle 2–3 cm. Pedicel 8–11 mm, glabrous. Hypanthium campanulate, 4-sided, ca. 3 mm, densely tuberculate, glabrous, margin inconspicuously repand. Calyx lobes ca. 5 mm. Petals rhombic-ovate, ca. 1.4 × 0.6 cm, oblique, apex with 1 glandular trichome at tip. Stamens 8, subequal, 4 longer and 4 slightly shorter; anthers linear-lanceolate, base tuberculate; connective base inconspicuously spurred. Longer stamens ca. 1.4 cm; anthers ca. 6.5 mm. Shorter stamens ca. 1.2 cm; anthers ca. 5.5 mm. Ovary 8-ribbed, glabrous, apex truncate and dentate. Berry urceolate, 7–10 × 5–9 mm, persistent sepals semiorbicular, glabrous, margin repand. Seeds obovate. Fl. and fr. Sep.

Dense forests, valleys; 1900–2100 m. Xizang (Médog), Yunnan [Bhutan, N India].

10. *Medinilla rubicunda* (Jack) Blume, Flora 14: 512. 1831.

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Melastoma rubicundum Jack, Trans. Linn. Soc. London 14: 18. 1823; *Medinilla emarginata* Craib; *M. erythrophylla* Wallich ex Lindley; *M. fuligineoglandulifera* C. Chen; *M. hainanensis* Merrill & Chun; *M. rubicunda* var. *tibetica* C. Chen; *M. yunnanensis* H. L. Li.

Shrubs 0.5–5 m tall, sometimes epiphytic, many-branched. Stems light brown or tan, slightly succulent, obtusely 4-angled, later terete, scattered lenticellate, glabrous; bark corky, wrinkled. Petiole 0.5–2.5 cm, glabrous; leaf blade elliptic to lanceolate, 5–14 × 2.5–6.5 cm, stiffly papery to subleathery, both surfaces glabrous, abaxially sometimes tuberculate, adaxially scrobiculate, secondary veins 1 or 2 on each side of midvein, if secondary veins 2-paired then apical pair originating ca. 5 mm for leaf blade base, base broadly cuneate to subround, margin entire, apex abruptly acuminate. Inflorescences axillary in axils of leaves or at leaf scars on older branches, cymose, (1–)3–5-flowered; peduncle 4–5 mm, puberulous. Pedicel 2–5 mm, puberulous; bracts 2 at base of each pedicel, acutely triangular, ca. 1 mm. Hypanthium funnel-shaped, 5–6.5 mm, puberulous. Calyx lobes inconspicuous, forming an undulate ring. Petals pink, rhomboid-obovate, 1–1.5 × 0.6–0.8 cm, oblique, glabrous, apex rounded to truncate. Stamens equal, 1–1.4 cm; anthers lanceolate, curved; connective decurrent, forming a short spur, adaxially 2-tuberculate. Ovary ovoid, glabrous, margin membranous, apex truncate. Berry ovoid to urceolate because of persistent, short, free calyx margin, 9–11 × 7–8 mm. Seeds obovate, glabrous. Fl. Aug–Sep, fr. Oct–Mar.

Mixed forests, woodlands, river banks, mountain slopes; 800–1800 m. Guangxi, Hainan, Xizang (Médog), Yunnan [Bhutan, NE India, Malaysia, N Myanmar, Nepal, Thailand].

11. *Medinilla petelotii* Merrill, Univ. Calif. Publ. Bot. 13: 137. 1926.

沙巴酸脚杆 sha ba suan jiao gan

Medinilla tsaii H. L. Li.

Shrubs 40–150 m tall, stoloniferous, epiphytic. Stems creeping, ascending, or erect, 4-sided, winged, lenticellate, later subterete, densely lenticellate, and scabrous, many-branched. Petiole ca. 5 mm, slightly winged; leaf blade obovate to elliptic, (6.5–)11–16(–23) × (2.2–)4.5–8(–11) cm, stiffly papery to subleathery, abaxially furfuraceous and tuberculate, adaxially minutely scrobiculate and glabrous, secondary veins 1 on each side of midvein, base cuneate and slightly decurrent, margin entire, apex acuminate. Inflorescences inserted on leafless stems or stolons, cymose, 3–7-flowered; peduncle ca. 1 cm, glabrous. Pedicel 3–7 mm. Hypanthium funnel-shaped, 6–7 mm, obtusely 4-sided, furfuraceous and small tuberculate. Calyx lobes inconspicuous, undulate, apex apiculate. Petals pink, suborbicular, 8–9 × ca. 8 mm, apex rounded. Stamens equal; filaments as long as anthers; anthers ca. 4 mm, base linear bulged ca. 1/2 length of anther; connective inflated, base decurrent forming a short spur. Ovary obovate, glabrous. Berry urceolate, ca. 1.8 × 1.2 cm. Seeds obovate, glabrous. Fl. Aug–Oct, fr. May–Jun.

Dense forests, near lake or river margins; 800–1400 m. Yunnan [Vietnam].

Flora of China 13: 392–395. 2007.