

20. RUNGIA Nees in Wallich, Pl. Asiat. Rar. 3: 77, 109. 1832.

孩儿草属 hai er cao shu

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Herbs, decumbent to erect, with cystoliths. Leaves petiolate; leaf blade margin entire. Inflorescences axillary or terminal spikes, secund or 4-sided, sometimes reduced to a single flower; bracts 2- or 4-ranked but usually only 2 ranks fertile, homomorphic or heteromorphic, usually imbricate, margin usually scariosus or hyaline; bracteoles similar to bracts or narrower. Calyx deeply 5-lobed; lobes equal or subequal. Corolla small; tube basally cylindric, distally \pm expanded; limb 2-lipped; lower lip spreading, 3-lobed; upper lip erect, rugula (stylar furrow) present, margin entire to emarginate; lobes ascending cochlear in bud. Stamens 2, inserted in corolla throat; anthers 2-theous; thecae subequal in size, superposed, lower one white spurred at base. Ovary with 2 ovules per locule; stigma entire or slightly 2-cleft. Capsule shortly stalked, ovoid or oblong, 4-seeded; retinacula present; septa (with attached retinacula) separating from inner wall of mature capsule. Seeds compressed, verrucose, lacking trichomes.

About 50 species: Old World tropics and subtropics; 16 species (12 endemic) in China.

- 1a. Flowers solitary in apical leaf axils or in 2-sided spikes; bracts 2- or 4-ranked, all fertile.
 - 2a. Flowers solitary in apical leaf axils 1. *R. axilliflora*
 - 2b. Flowers in axillary or terminal spikes.
 - 3a. Plants 6–10 cm tall; spikes globose or ovoid, 0.5–1 cm 2. *R. mina*
 - 3b. Plants more than 20 cm tall; spikes cylindric, 1–7 cm.
 - 4a. Bracts without hyaline margin 3. *R. densiflora*
 - 4b. Bracts with hyaline margin.
 - 5a. Bracteoles elliptic, ca. 1/2 as long as bracts 4. *R. chinensis*
 - 5b. Bracteoles ovate-lanceolate, as long as bracts 5. *R. stolonifera*
- 1b. Spikes 1-sided; bracts 4-ranked, each 2 fertile or sterile.
 - 6a. Bract margins not ciliate.
 - 7a. Sterile and fertile bracts different in shape; fertile bracts oblong, ca. 0.7 cm, apex rounded 6. *R. guangxiensis*
 - 7b. Sterile and fertile bracts similar in shape; fertile bracts oblong to elliptic-oblong, ca. 1.5 cm, apex acute 7. *R. pinpienensis*
 - 6b. Bract margins ciliate.
 - 8a. Fertile bracts circular, obovate, elliptic, obovate-elliptic, or sphenoid, apex rounded, obtuse, or emarginate.
 - 9a. Fertile bracts circular to obovate, apex rounded to obtuse to emarginate and mucronate 8. *R. pectinata*
 - 9b. Fertile bracts sphenoid, elliptic, obovate, or obovate-elliptic, apex rounded and not mucronate.
 - 10a. Fertile bracts sphenoid 9. *R. monetaria*
 - 10b. Fertile bracts elliptic, obovate-elliptic, or obovate.
 - 11a. Fertile bracts elliptic to obovate-elliptic 10. *R. longipes*
 - 11b. Fertile bracts obovate 11. *R. bisaccata*
 - 8b. Fertile bracts lanceolate-linear, oblong-lanceolate, lanceolate, ovate, or elliptic, apex acute, acuminate, or cuspidate.
 - 12a. Bracts abaxially gland-tipped pubescent 12. *R. pungens*
 - 12b. Bracts glabrous or non-glandular pubescent.
 - 13a. Fertile bracts elliptic, broader at middle.
 - 14a. Leaf blade pubescent abaxially 13. *R. nipoensis*
 - 14b. Leaf blade glabrous on both surfaces 14. *R. yunnanensis*
 - 13b. Fertile bracts ovate to ovate-lanceolate to lanceolate-linear, broader at base.
 - 15a. Leaf blade glabrous 15. *R. taiwanensis*
 - 15b. Leaf blade pubescent along veins and ciliate on margin 16. *R. hircex*

1. *Rungia axilliflora* H. S. Lo, Acta Phytotax. Sin. 16(4): 92. 1978.

腋花孩儿草 ye hua hai er cao

Herbs 10–20 cm tall. Branches slender, bifariously retrorsely pubescent. Petiole 2–7 mm, pubescent; leaf blade ovate to broadly ovate, 5–20 \times 4–14 mm, secondary veins ca. 4 on each side of midvein, base cuneate to rounded, margin entire or slightly undulate, apex obtuse to rounded. Flowers solitary in

apical leaf axils, sessile; bracteoles 2, broadly ovate, 4–4.5 \times ca. 2.5 mm, margin yellow, 0.1–0.2 mm broad, membranous, and ciliate. Calyx 3–3.5 mm; lobes lanceolate, glabrous, apex acuminate. Corolla light bluish, 1.1–1.2 cm, outside glabrous; tube ca. 6 mm, straight; lower lip ca. 6 mm, patent, apex 3-lobed, lobes orbicular and ca. 1.5 mm in diam.; upper lip triangular, erect, apex emarginate. Staminal filaments ca. 5 mm; anther thecae ovoid. Ovary glabrous; style 8.5–9 mm; stigma 2-lobed. Capsule not seen. Fl. Sep–Nov.

- Streamsides; 400–700 m. Guangxi, Guizhou.

2. *Rungia mina* H. S. Lo, Acta Phytotax. Sin. 16(4): 93. 1978.

矮孩儿草 ai hai er cao

Herbs 6–10 cm tall. Stems ca. 1 mm in diam., erect, usually unbranched, white retrorsely gland-tipped pubescent. Petiole 2–5 mm, densely pubescent; leaf blade ovate or broadly ovate, 5–20 × 4–10 mm, both surfaces sparsely pubescent, secondary veins 2 or 3 on each side of midvein, base broadly cuneate, margin entire, apex obtuse. Spikes terminal or axillary, sessile, globose to ovoid, 5–10 mm, 2-sided, contracted; bracts all fertile, obovate to spatulate-obovate, ca. 4 × 3 mm, abaxially pilose, margin hyaline and ciliate, apex obtuse to sometimes acute; bracteoles boat-shaped, ca. 3 × 2 mm, concave, margin ciliate. Calyx 5-lobed almost to base; lobes linear-lanceolate, 1.5–1.7 mm, apex acuminate. Corolla purple, ca. 3.8 mm; tube ca. 2 mm; lower lip ca. 1.8 mm, patent, 3-lobed, lobes suborbicular, ca. 0.5 mm in diam., and outside slightly pubescent on central one; upper lip broadly triangular, ca. 1.5 mm, erect, apex emarginate. Staminal filaments ca. 1.5 mm; anther thecae ovoid. Ovary glabrous; style ca. 4 mm, glabrous. Capsule ca. 2.7 mm, glabrous. Fl. Sep.

- Wet places in forests; ca. 1400 m. Yunnan.

3. *Rungia densiflora* H. S. Lo, Acta Phytotax. Sin. 16(4): 94. 1978.

密花孩儿草 mi hua hai er cao

Herbs to 50 cm tall. Stems stout, bifariously retrorsely pubescent. Petiole 0.5–2 cm, pubescent; leaf blade elliptic-ovate, ovate, or ovate-lanceolate, 2–8.5 × 1–3 cm, papery, both surfaces glabrous or minutely hirsute, secondary veins 6–8 on each side of midvein, base cuneate and slightly decurrent onto petiole, margin entire, apex acuminate to slightly obtuse. Spikes terminal or axillary, sessile, to 3 cm; bracts 4-ranked, all fertile, homomorphic, usually spatulate to sometimes obovate, 7–11 × 1.5–3 mm, 3-veined, margin not hyaline but ciliate and densely so apically, apex rounded to obtuse; bracteoles 2, obovate, ca. 6 × 2–3 mm, margin hyaline. Calyx ca. 4 mm; lobes linear-lanceolate. Corolla 1.1–1.7 cm, outside pilose; tube basally cylindrical for 6–9 mm; lower lip oblong, 5–8 mm, apex 3-lobed, central lobe smaller; upper lip triangular-ovate, erect, shortly 2-lobed. Staminal filaments 5–7 mm, glabrous; anther thecae ovoid. Capsule ca. 6 mm. Fl. Sep–Oct, fr. Nov–Dec.

- Forests, streamsides; 400–800 m. Anhui, Guangdong, Jiangxi, Zhejiang.

4. *Rungia chinensis* Benth, Fl. Hongk. 166. 1861.

中华孩儿草 zhong hua hai er cao

Herbs to 70 cm tall, spreading to erect. Stems slender, 4-angled, sulcate, slightly puberulent, usually rooting at basal nodes. Petiole 0.5–3 cm, pubescent; leaf blade ovate to oblong-lanceolate, 2.5–9 × 1.8–3 cm, membranous, glabrous except sparsely hirsute along veins, secondary veins 5 or 6 on each side of midvein, base cuneate to attenuate, margin entire or slightly undulate, apex acute to obtuse. Spikes terminal or axil-

lary, 1–7 cm, 2-sided; bracts 4-ranked, all fertile, elliptic, 7–8 × 2–4 mm, margin sparsely ciliate, apex acute; bracteoles elliptic, 4–5 × ca. 2.5 mm, margin membranous and sparsely ciliate, apex mucronate. Calyx deeply 5-lobed; lobes linear-lanceolate, ca. 5 mm. Corolla bluish, 6–8 mm, outside slightly pilose and glandular punctate; lower lip 3-lobed, lobes ca. 7 mm; upper lip shallowly dentate. Ovary subglabrous; style ca. 1 cm, glabrous; stigma obtuse. Capsule ovoid, ca. 6 mm, 4-seeded. Seeds lenticular, ca. 1.5 mm wide, minutely tuberculate. Fl. Sep–Oct, fr. Nov–Dec.

Grasslands; 300–1200 m. Anhui, Fujian, Guangdong, Guangxi, Jiangxi, Taiwan, Zhejiang [Vietnam].

This species is used medicinally.

5. *Rungia stolonifera* C. B. Clarke in J. D. Hooker, Fl. Brit. India 4: 547. 1885.

匍匐鼠尾黄 pu fu shu wei huang

Justicia stolonifera (C. B. Clarke) B. Hansen.

Herbs 30–60 cm tall, erect, branched, rooting at basal nodes. Stems 4-angled, sulcate, pubescent along groove. Petiole 5–10 mm; leaf blade ovate, 2.5–7.5 × 1.8–3.8 cm, subglabrous except for some pubescence on margin, secondary veins ca. 5 on each side of midvein, base broadly cuneate, margin entire or undulate, apex acute. Spikes terminal or axillary; bracts obovate to spatulate, ca. 4 × 3 mm, minutely pubescent, margin hyaline, apex rounded; bracteoles ovate-lanceolate, similar to bracts. Calyx ca. 1.3 cm, glabrous; lobes lanceolate, margin hyaline. Corolla 1.2–1.6 cm; tube basally cylindrical, 2–3 mm in diam., and straight for ca. 8 mm; limb ca. 4 mm; lower lip 3-lobed, pendent, lobes oblong and ca. 1 × 1 mm; upper lip triangular, erect, subentire. Staminal filaments white, glabrous; anther thecae purplish black. Ovary sparsely hirsute; style 1.5–1.8 cm, exerted; stigma orbicular. Capsule 3–4 mm, subglabrous. Seeds ovate in outline, ca. 2 × 1.5 mm, minutely gland-tipped papillose. Fl. Sep–Oct, fr. Nov–Dec.

Forests, trailsides; 200–2300 m. Yunnan [Bangladesh, India].

6. *Rungia guangxiensis* H. S. Lo & D. Fang, Guihaia 17: 46. 1997.

广西孩儿草 guang xi hai er cao

Herbs to 70 cm tall, erect. Stems subterete, subglabrous or pubescent when young. Petiole 0.5–2.5 cm, bifariously pubescent; leaf blade elliptic to ovate, 9–17 × 2.5–4 cm, abaxially puberulent, adaxially glabrous, secondary veins ca. 7 on each side of midvein, base cuneate, margin entire, apex shortly acuminate. Spikes terminal, 1-sided; peduncle absent or less than 3 mm; bracts 4-ranked; fertile bracts oblong, ca. 7 × 3.5 mm; sterile bracts broadly obovate, 7–8 × 4–5 mm, glabrous, apex rounded. Calyx ca. 2.5 mm, 5-lobed. Corolla red, ca. 1.7 cm, outside glabrous; tube basally cylindrical and ca. 1.5 mm in diam.; lower lip 3-lobed, patent; upper lip ovate-triangular, apex obtuse. Stamens slightly exerted; anther thecae ovoid, lower thecae spurred. Capsule not seen. Fl. Jan–Apr.

- Dense forests; 500–600 m. Guangxi.

7. *Rungia pinpienensis* H. S. Lo, Acta Phytotax. Sin. 16(4): 91. 1978.

屏边孩儿草 ping bian hai er cao

Herbs to 1 m tall, erect. Stems 4-angled when young then subterete, subglabrous. Petiole 2–5 cm, subglabrous; leaf blade elliptic to broadly elliptic, 13–15 × 6–8 cm, cystoliths white, abaxially glabrous or puberulent along veins, adaxially glabrous, secondary veins 9 or 10 on each side of midvein and netted near margin, base broadly cuneate, margin slightly undulate, apex cuspidate. Spikes terminal, ca. 9 cm, 1-sided; peduncle ca. 1 cm; bracts 4-ranked, each 2 sterile or fertile, oblong to elliptic-oblong, ca. 15 × 4–5 mm, homomorphic, glabrous, margin narrowly hyaline, apex acute. Calyx ca. 5 mm; lobes linear. Corolla not seen. Capsule ca. 1.2 cm, glabrous. Seeds blackish brown, ovate in outline, densely verrucose. Fr. Apr–Jun.

• Streamsides; 900–1900 m. Yunnan.

8. *Rungia pectinata* (Linnaeus) Nees in A. Candolle, Prodr. 11: 470. 1847.

孩儿草 hai er cao

Justicia pectinata Linnaeus, Amoen. Acad. 4: 299. 1760; *Rungia parviflora* Nees subsp. *pectinata* (Linnaeus) L. H. Cramer; *R. parviflora* var. *pectinata* (Linnaeus) C. B. Clarke; *R. pectinata* var. *clarkeana* Handel-Mazzetti.

Herbs 20–50 cm tall, annual or perennial. Stem basally prostrate and rooting at nodes then erect, minutely pubescent. Petiole 0–7 mm; leaf blade oblong-elliptic, 1–4 × 0.4–1.4 cm, glabrous except for a few trichomes along veins, secondary veins ca. 4 on each side of midvein, base cuneate and decurrent onto petiole, margin entire, apex acute. Spikes axillary or terminal, 0.5–2 cm, 1-sided, solitary or sometimes 2 or 3 compound; bracts dimorphic; sterile bracts green, elliptic, ca. 4 × 0.7 mm, glabrous, apex acute; fertile bracts circular to obovate, 4–5 × ca. 2 mm, pubescent, margin broadly hyaline, apex obtuse to rounded to emarginate and mucronulate; bracteoles elliptic, 2–3 mm, margin ciliate, apex 2-cleft and subacute. Calyx colorless, pubescent; lobes linear-lanceolate, ca. 3 × 0.5 mm, margin narrowly hyaline, apex mucronulate. Corolla blue or white, ca. 5 mm, outside pubescent; lower lip 3-lobed, lobes triangular; upper lip ovate, 1–2 mm, apex emarginate. Staminal filaments glabrous. Ovary glabrous. Capsule ellipsoid, ca. 2.5 mm, glabrous, 2–4-seeded, apex apiculate. Seeds orbicular in outline, ca. 1 mm in diam., minutely verrucose. Fl. Nov–Jan, fr. Jan–Apr. *2n* = 26, 52.

Wastelands. Guangdong, Guangxi, Hainan, Yunnan [Bangladesh, Bhutan, India, Laos, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam].

Rungia pectinata is a common weed in disturbed habitats.

This species is used medicinally.

9. *Rungia monetaria* (Benoist) B. Hansen, Nordic J. Bot. 9: 211. 1989.

中越孩儿草 zhong yue hai er cao

Justicia monetaria Benoist, Bull. Soc. Bot. France 81: 605. 1934.

Herbs to 1.5 m tall, perennial. Stems sulcate, glabrescent. Petiole 1–2.5 cm; leaf blade elliptic to ovate-elliptic, 6–17 × 3–8.5 cm, both surfaces densely covered with prominent cystoliths and glabrous, secondary veins 4–7 on each side of midvein, base cuneate and to decurrent and asymmetric or symmetric, margin entire, apex acute to acuminate. Spikes terminal or borne from leafless lateral branches, (2–)5–8(–19) cm; peduncle ca. 1 cm, glabrous; rachis glabrous; bracts 4-ranked; sterile bracts yellowish green, circular, rhombic, or obovate, 1.2–1.6 × 1.1–1.6 cm, glabrous, base rounded to cuneate, margin entire or apically serrate, apex rounded to acute; fertile bracts yellowish brown, sphenoid, 1.2–1.4 × 0.8–1.1 cm, glabrous, base cuneate, margin entire, apex rounded; bracteoles yellowish brown, narrowly lanceolate, 9–11 × ca. 2 mm, membranous, abaxially glabrous, margin ciliate. Calyx yellowish brown, 6–7 mm, glabrous, 5-lobed almost to base; lobes 5–6 × ca. 1 mm. Corolla white with purple dotted stripe in throat, ca. 1.5 cm; tube ca. 6 × 3 mm; lower lip oblong, ca. 7 × 6 mm, 3-lobed, middle lobe ca. 3 × 2 mm, lateral lobes ca. 2 × 1 mm; upper lip triangular, ca. 5 × 6 mm, apex emarginate. Stamens 2, inserted at base of throat; filaments ca. 3 mm, glabrous; anther thecae ovoid. Ovary ca. 1.5 × 1 mm, glabrous; style ca. 8 mm, glabrous. Capsule obovoid-ellipsoid, ca. 10 × 3 mm, glabrous, 2-seeded. Seeds orbicular in outline, ca. 3 mm in diam., glabrous. Fl. Sep–Oct, fr. Nov–Jan.

Streamsides; 300–900 m. Yunnan [Vietnam].

10. *Rungia longipes* D. Fang & H. S. Lo, Guihaia 17: 49. 1997.

长柄孩儿草 chang bing hai er cao

Herbs to 50 cm tall. Stems subterete, bifariously pubescent. Petiole (1–)4–4.5 cm, pubescent; leaf blade ovate to elliptic, 10–17 × 4–8.5 cm, thinly papery to papery, abaxially pubescent along veins, adaxially densely covered with white linear cystoliths and glabrous, secondary veins 6 or 7 on each side of midvein, base broadly cuneate and slightly oblique, margin undulate-denticulate, apex acuminate. Spikes axillary, 2.5–11 cm, 1-sided; bracts 4-ranked, heteromorphic; sterile bracts elliptic to ovate-elliptic, (6–)10–12 × 3–4 mm, abaxially subglabrous, hyaline margin ca. 0.5 mm and ciliate, apex obtuse; fertile bracts elliptic to obovate-elliptic, ca. 12 × 5 mm, abaxially puberulent, margin slightly ciliate, apex rounded; bracteoles obovate-elliptic, ca. 7 × 3 mm, apex obtuse. Calyx 6–10 mm; lobes subulate, margin ciliolate. Corolla not seen. Capsule ca. 1 cm, pubescent. Seeds ovate in outline, ca. 2 × 2 mm, verrucose. Fr. Apr–Jun.

• Forests in valleys. Guangxi.

11. *Rungia bisaccata* D. Fang & H. S. Lo, Guihaia 17: 48. 1997.

囊花孩儿草 nang hua hai er cao

Herbs 20–40 cm tall. Stems subterete when young then 4-angled, 2-sulcate, pubescent along furrow. Petiole 0.8–2.5 cm, pubescent; leaf blade ovate-elliptic, 5–13 × 2.3–5.7 cm, papery, abaxially subglabrous or puberulent along veins, adaxially glabrous, secondary veins 5–7 on each side of midvein, base

broadly cuneate to attenuate, margin slightly undulate, apex acuminate to obtuse. Spikes axillary, 1-sided; bracts 4-ranked, sterile and fertile ones similar, obovate, 7–11 × 4–8 mm, abaxially glabrous, margin slightly ciliate, apex rounded; bracteoles oblong-elliptic, ca. 10 × 4 mm, margin hyaline and ciliate. Calyx ca. 7 mm; lobes subulate, margin ciliate. Corolla white with rose dots, ca. 1.8 cm, outside and inside slightly gland-tipped puberulent; tube cylindric and ca. 2.5 mm in diam. for ca. 9 mm, inside with a saccate papilla; lower lip ca. 6 × 3 mm, patent, 3-lobed, central lobe larger; upper lip ca. 5 mm, erect, 2-lobed. Staminal filaments ca. 5 mm, glabrous; anther thecae ca. 2 mm. Ovary glabrous; style ca. 1.3 cm, glabrous. Capsule not seen. Fl. Jan–Feb.

- Rocky mountains. Guangxi.

12. *Rungia pungens* D. Fang & H. S. Lo, *Guihaia* 17: 47. 1997.

尖苞孩儿草 jian bao hai er cao

Herbs 0.5–1.5 m tall, isophyllous. Stems erect or basal portion prostrate and rooting at nodes, 4-angled, glabrous or bifariously pubescent. Petiole 0.4–5.5 cm, glabrous; leaf blade elliptic to ovate-elliptic, 2.5–16 × 0.9–5.5 cm, densely covered with linear cystoliths, glabrous, secondary veins 4–9 on each side of midvein, base broadly cuneate, margin slightly undulate, apex acuminate. Spikes terminal or axillary, 2–5 cm, 1-sided; peduncle 1–9 cm; rachis pubescent or gland-tipped pubescent; bracts 4-ranked, heteromorphic; sterile bracts elliptic, 7.5–8 × 4–6 mm, abaxially gland-tipped puberulent, hyaline margin 0.8–1.5 mm broad and ciliate, apex cuspidate; fertile bracts lanceolate, 6.5–7.5 × ca. 4 mm, abaxially gland-tipped puberulent, hyaline margin ca. 1 mm wide and ciliate, apex cuspidate; bracteoles elliptic, ca. 6 × 4 mm, abaxially scabrid, adaxially glabrous. Calyx 6–7 mm; lobes linear, unequal, scabrid. Corolla light yellowish green outside and white with purple dots inside, ca. 1.5 cm, gland-tipped pubescent and pubescent; tube ca. 7 mm; lower lip 3-lobed, middle lobe larger; upper lip ca. 6 mm, apex emarginate. Staminal filaments ca. 5 mm, glabrous; anther thecae ca. 1.5 mm. Ovary hirsute; style ca. 1 cm, basal portion hirsute. Capsule ca. 8 mm, gland-tipped puberulent or puberulent. Seeds ovate in outline, ca. 2 × 1.5 mm, verrucose. Fl. Dec–Feb, fr. Apr–May.

- Limestone hills, forests; 600–1000 m. Guangxi, Yunnan.

13. *Rungia napoensis* D. Fang & H. S. Lo, *Guihaia* 17: 46. 1997.

那坡孩儿草 na po hai er cao

Herbs 70–90 cm tall. Stems 4-angled when young then subterete, sulcate, bifariously pubescent. Petiole 0.5–2.5 cm, bifariously pubescent; leaf blade narrowly elliptic to lanceolate, 3–10 × 1–4 cm, papery, both surfaces densely covered with linear cystoliths, abaxially pubescent along veins, adaxially glabrous, secondary veins 4–7 on each side of midvein, base cuneate, margin subentire, apex acuminate. Spikes axillary or terminal, 1–5 cm, 1-sided; peduncle 3–5 mm, pubescent; bracts 4-ranked; sterile bracts lanceolate-elliptic, ca. 4 × 1–2 mm, abaxially glabrous, margin hyaline and ciliate, apex acute; fertile

bracts purplish, elliptic, ca. 9 × 4 mm, covered with cystoliths, abaxially glabrous, hyaline margin ca. 0.5 mm broad and ciliate, apex acute; bracteoles purple at tip, elliptic, ca. 9 × 5 mm, abaxially puberulent. Calyx ca. 6 mm; lobes linear. Corolla white, ca. 1.6 cm, outside sparsely pubescent; tube ca. 7 × 2 mm; lower lip ca. 7 mm, 3-lobed, central lobe larger; upper lip triangular, ca. 6 mm, apex emarginate. Staminal filaments ca. 3 mm, glabrous; anther thecae ca. 1.5 mm. Ovary glabrous; style ca. 1.2 cm, subglabrous. Capsule not seen. Fl. Dec–Mar.

- Limestone hills, streamsides; 200–500 m. Guangxi.

14. *Rungia yunnanensis* H. S. Lo, *Acta Phytotax. Sin.* 16(4): 92. 1978.

云南孩儿草 yun nan hai er cao

Herbs. Stems stout, subterete, sulcate, bifariously retrorsely pubescent. Petiole 1.5–2 cm, pubescent; leaf blade ovate, 6–10 × 2.5–3.5 cm, papery, both surfaces glabrous, secondary veins 10–12 on each side of midvein and netted near margin, base attenuate and slightly decurrent onto petiole, margin entire, apex acuminate. Spikes terminal or axillary, to 8 cm, 1-sided; bracts 4-ranked; sterile bracts ovate, 10–12 × 5–6 mm, hyaline margin broad, apex acuminate; bracts fertile, elliptic, ca. 9 × 3 mm, margin hyaline; bracteoles elliptic, ca. 6.5 × 3 mm. Calyx ca. 7 mm; lobes linear, slightly scabrid, apex acuminate. Corolla ca. 1 cm, outside pilose. Staminal filaments glabrous; anther thecae ovoid. Ovary hirsute; style glabrous. Capsule ca. 9 mm, tomentose. Fl. Nov–Dec, fr. Jan–Mar.

- Thickets, valleys, streamsides; 400–1000 m. Yunnan.

15. *Rungia taiwanensis* T. Yamazaki, *J. Jap. Bot.* 43: 61. 1968.

台湾明萼草 tai wan ming e cao

Herbs 30–50 cm tall. Stems prostrate and rooting at nodes on basal portion, bifariously hirsute. Petiole 1–3 cm, pubescent; leaf blade ovate-oblong to oblong-lanceolate, 2.5–8 × 2.1–3.5 cm, membranous, glabrous, secondary veins 4–7 on each side of midvein, base cuneate to attenuate, margin entire or slightly undulate, apex acuminate. Spikes terminal or axillary, to 4 cm, often solitary; peduncle 1–2 cm; bracts 4-ranked; sterile bracts oblong-lanceolate, 8–9 × 2–3 mm, hyaline margin narrow and ciliate; fertile bracts ovate to ovate-lanceolate, hyaline margin broad and ciliate; bracteoles ovate, ca. 6 × 3.5 mm. Calyx ca. 5 mm, 5-lobed almost to base; lobes lanceolate. Corolla blue, ca. 1.5 cm, outside slightly gland-tipped pubescent; throat ca. 3 mm; lower lip 3-lobed; upper lip broad. Stamens exerted; filaments ca. 5 mm, glabrous. Ovary glabrous; style ca. 1 cm, glabrous. Capsule ovoid, ca. 6 mm. Seeds suborbicular, ca. 1.5 × 1.5 mm, minutely tuberculate.

- Thickets, streamsides; 1000–1500 m. Taiwan.

16. *Rungia hirpex* Benoist, *Bull. Mus. Natl. Hist. Nat., sér. 2*, 2: 149. 1930.

金沙鼠尾黄 jin sha shu wei huang

Herbs to 60 cm tall. Stems 4-angled, sulcate, bifariously pubescent along sulcae. Petiole 1–3 cm, pubescent; leaf blade ovate to oblong, 2.5–9 × 1.5–4.5 cm, slightly pubescent along

Fl. China 19: 443–447. 2011.

veins, secondary veins 3–5 on each side of midvein and inconspicuous, base cuneate and decurrent onto petiole, margin entire and ciliate, apex acuminate. Spikes terminal, 3–5 cm; bracts homomorphic but sterile ones slightly larger than fertile ones, lanceolate-linear, 10–14 × 2–2.5 mm, abaxially pubescent, margin ciliate, apex acute; bracteoles oblong-lanceolate, ca. 6 × 2 mm, margin ciliate, apex acuminate. Calyx 5-lobed almost to base; lobes linear, ca. 5 × 2 mm, glabrous, apex acute. Corolla ca. 1.4 cm; tube cylindric; lower lip ca. 2 × 3 mm, 3-lobed, lobes ovate and apex rounded; upper lip 2-lobed. Stamens white, ca. 4 mm, glabrous. Ovary glabrous. Capsule 7–8 mm, glabrous. Seeds ovate in outline, ca. 1 mm in diam. Fl. Aug–Oct, fr. Oct–Dec.

- Streamsides; 500–600 m. Yunnan.

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