

**91. RHYNCHOSIA** Loureiro, Fl. Cochinch. 2: 425, 460. 1790, nom. cons.

鹿藿属 *lu huo shu*

Sa Ren (萨仁); Michael G. Gilbert

*Dolicholus* Medikus.

Usually vines, creeping or twining, rarely erect shrubs or subshrubs. Leaves pinnately 3-foliolate; stipules usually caducous; stipels persistent or absent; leaflets usually with sessile glands abaxially. Inflorescence axillary, racemose, sometimes branched or 1-flowered. Bracts usually deciduous, rarely persistent. Calyx campanulate, 5-lobed, upper 2 lobes ± connate, lowest 1 longer. Corolla longer than calyx or short; standard circular or obovate, base with inflexed auricles, with or without appendage; wings and keels subequal, inflexed. Stamens diadelphous; vexillary stamen free; anthers uniform. Ovary sessile or subsessile; ovules (1 or)2; style curved above middle, usually hairy at lower part; stigma terminal. Legume oblong, oblanceolate, obovoid-ellipsoid, obliquely orbicular, sickleform, or ellipsoid, dehiscent, compressed or inflated, (1 or)2-seeded, not septate, apex always beaked. Seeds (1 or)2, usually suborbicular or reniform; hilum round, funicle in middle, strophiole small or absent.

About 200 species: worldwide; 13 species (five endemic) in China.

- 1a. Legume densely green or yellowish green tomentose.
  - 2a. Inflorescence densely 40–80-flowered; legume both tomentose and villous ..... 1. *R. acuminatissima*
  - 2b. Inflorescence sparsely ca. 20-flowered; legume densely villous ..... 2. *R. lutea*
- 1b. Legume glabrous or pubescent.
  - 3a. Legume oblanceolate or obovate-orbicular to ellipsoid, length:width ratio more than 2:1.
    - 4a. Leaflet apex acuminate or shortly acuminate.
      - 5a. Terminal leaflet broadly ovate or circular-rhomboid, apex acuminate; flowers lax ..... 12. *R. himalensis*
      - 5b. Terminal leaflet rhomboid, apex shortly acuminate; flowers dense ..... 13. *R. kunmingensis*
    - 4b. Leaflet apex rounded or obtuse.
      - 6a. Stem slender, glabrous or sparsely pubescent; terminal leaflet 1.5–3 cm long and wide ..... 9. *R. minima*
      - 6b. Stem robust, densely hairy; terminal leaflet 2–8 × 2.5–8 cm.
        - 7a. Terminal leaflet reniform or oblate, base slightly cordate or almost truncate ..... 10. *R. yunnanensis*
        - 7b. Terminal leaflet circular-rhomboid, base rounded ..... 11. *R. sericea*
  - 3b. Legume obliquely orbicular, oblong, or obovate, length:width ratio less than 2:1.
    - 8a. Legume obliquely orbicular, inflated; seed 1 ..... 3. *R. rufescens*
    - 8b. Legume oblong or obovate, compressed; seeds usually 2.
      - 9a. Terminal leaflet apex obtuse, rarely acute ..... 4. *R. volubilis*
      - 9b. Terminal leaflet apex acuminate or caudate-acuminate.
        - 10a. Inflorescence slender, 1–7 cm ..... 5. *R. acuminatifolia*
        - 10b. Inflorescence robust, 5–27 cm.
          - 11a. Stem tomentose and sticky with gland-tipped hairs ..... 6. *R. viscosa*
          - 11b. Stem villous or pubescent, gland-tipped hairs absent.
            - 12a. Terminal leaflet lanceolate to ovate-lanceolate, both sides sparsely pubescent, apex caudate-acuminate; raceme branched; legume glabrous or almost glabrous ..... 7. *R. chinensis*
            - 12b. Terminal leaflet ovate, broadly elliptic, or rhomboid-ovate, both sides densely pubescent, apex acuminate or caudate-acuminate; raceme unbranched; legume pubescent ..... 8. *R. dielsii*

**1. *Rhynchosia acuminatissima*** Miquel, Fl. Ned. Ind. 1: 171. 1855.

密果鹿藿 *mi guo lu huo*

*Rhynchosia myriocarpa* Quisumbing & Merrill.

Herbs. Stems twining, densely yellow or yellow-green pubescent, spotted with black glands. Leaves pinnately 3-foliolate; stipules ovate to lanceolate, 4–6 mm; petiole 6–10(–14) cm; stipels small, pyramidal; petiolules 3–5 mm, densely pubescent; leaflets ovate to broadly ovate-rhomboid, 5.5–12 × 4.5–8.5 cm, almost membranous, base rounded, slightly cordate, or almost truncate, apex long acuminate and curved; lateral leaflets much smaller, base oblique, both surfaces pubescent, basal veins 3.

Raceme 10–15 cm, hairy, densely 40–80-flowered; peduncle 1.5–3 cm. Flowers 1.1–1.3 cm, usually paired or clustered at upper part of inflorescence; pedicels slender, 4–5 mm, pubescent. Calyx ca. 5 mm; lobes acute, unequal, ca. 2 mm. Corolla light purple; standard abaxially pubescent, with obvious callosity inside; keels obtuse. Ovary villous. Legume oblong, 1.7–2 × 0.6–0.7 cm, slightly curved, slightly constricted between seeds, densely tomentose and villous. Seeds usually 2, deep blue or black, lustrous, ovate, 4–6 × 3.5–4 mm. Fl. Mar–Apr, fr. after May.

Forests, shrubs; ca. 600 m. Hainan, Yunnan [Indonesia, Malaysia, Papua New Guinea, Philippines, Vietnam; Australia, Pacific islands (Solomon Islands)].

**2. *Rhynchosia lutea*** Dunn, J. Linn. Soc., Bot. 35: 491. 1903.

黄花鹿藿 huang hua lu huo

Herbs. Stems twining, slender to slightly robust, pubescent. Leaves pinnately 3-foliolate; stipules small, triangular, ca. 6 mm, deciduous; petiole 4–12 cm, sparsely pubescent; stipels small, bristlelike; petiolules 3–5 mm, densely pubescent; terminal leaflet rhomboid-circular, oblate-circular, or rarely subtriangular, 5–9.5 × 4.5–10 cm, papery, pubescent, with sparse light yellow glands, basal veins 3, base almost truncate or slightly cordate, apex abruptly caudate-acuminate; lateral leaflets much smaller, obliquely ovate. Raceme axillary, to more than 20 cm, ca. 20-flowered, rachis densely villous. Flowers ca. 2 cm. Calyx campanulate, ca. 5 mm, pubescent; lobes triangular to lanceolate, unequal, lower one longest. Standard circular, with accessory substance; keels inflexed, shorter than standard and longer than wings. Ovary 2-ovuled. Legume oblong or obovate-oblong, 2–3 × ca. 1 cm, compressed, green, apex with small curved mucro, densely villous, usually with constriction between seeds. Seeds 1 or 2, purplish black or dark brown, sub-orbicular, compressed, 5–7 mm wide; hilum short, circular. Fr. Sep–Oct.

- Rocky mountains; 1100–1300 m. Yunnan (Mengzi).

**3. *Rhynchosia rufescens*** (Willdenow) Candolle, Prodr. 2: 387. 1825.

淡红鹿藿 dan hong lu huo

*Glycine rufescens* Willdenow, Neue Schriften Ges. Naturf. Freunde Berlin 4: 222. 1803.

Shrubs, creeping, climbing or almost erect. Stems zigzag, pubescent. Leaves pinnately 3-foliolate; stipules small, linear-lanceolate, 2–4 mm, deciduous; petiole 2–4.5 cm, hairy; petiolules short, 1–2 mm; terminal leaflet ovate to ovate-elliptic, 2–5.5 × 1.2–2.5 cm, both surfaces pubescent, with dense sessile glands, basal veins 3, base rounded, apex obtuse or shortly mucronate; lateral leaflets slightly smaller, obliquely ovate. Raceme axillary, slender, 2–4 cm, 2–6-flowered, densely pubescent; bracts small, deciduous; peduncle usually 2–5 mm, hairy. Flower ca. 1 cm. Calyx green, ca. 1 cm, densely pubescent, deeply lobed to base; lobes oblong. Corolla purple to yellow, longer than calyx. Legume obliquely orbicular, inflated, equal or subequal to calyx, apex slightly curved, acute, pubescent, brown and dehiscent when mature. Seed 1, black, transversely elliptic, ca. 3.5 × 3 mm, with succulent strophiole. Fl. Apr–Oct, fr. Oct–Feb.  $2n = 22$ .

Valleys; 300–700 m. Guangxi, Yunnan [Cambodia, India, Indonesia, Malaysia, Sri Lanka].

**4. *Rhynchosia volubilis*** Loureiro, Fl. Cochinch. 2: 460. 1790.

鹿藿 lu huo

Herbs. Stems twining, ribbed, densely gray to light yellow villous. Leaves pinnately or sometimes almost digitately 3-foliolate; stipules small, lanceolate, 3–5 mm, pubescent; petiole 2–5.5 cm; petiolules 2–4 mm; leaflets papery; terminal leaflet rhomboid or obovate-rhomboid, 3–8 × 3–5.5 cm, both surfaces gray or light yellow villous, with yellow-brown sessile glands,

basal veins 3, base rounded or broadly cuneate, apex obtuse or acute, usually mucronate; lateral leaflets smaller, usually oblique. Racemes 1–3 per axil, 1.5–4 cm; peduncle ca. 2 mm. Flowers ca. 1 cm, slightly clustered. Calyx campanulate, ca. 5 mm; lobes lanceolate, exterior pubescent and with glands. Corolla yellow; standard subcircular, with wide and inflexed auricles; wings obovate-oblong, base with 1 long auricle at one side; keels beaked. Ovary hairy, with clustered glands. Legume reddish purple, oblong, 1–1.5 × ca. 0.8 cm, extremely compressed, slightly constricted between seeds, sparsely hairy to almost glabrous, apex with small beak. Seeds usually 2, black, lustrous, elliptic or subreniform. Fl. May–Aug, fr. Sep–Dec.  $2n = 22$ .

Mountains south of the Chang Jiang; 200–1000 m. Guangdong, Hainan, Taiwan [Japan, Korea, Vietnam].

This plant is used medicinally.

**5. *Rhynchosia acuminatifolia*** Makino, J. Jap. Bot. 2: 4. 1920.

渐尖叶鹿藿 jian jian ye lu huo

*Rhynchosia volubilis* Loureiro var. *acuminata* Maximowicz.

Herbs. Stems twining, slender, sparsely pubescent. Leaves pinnately 3-foliolate; stipules small, ovate, membranous, deciduous; petiole 2.5–7 cm, pubescent; stipels bristlelike; petiolules short; terminal leaflet ovate or broadly elliptic, 4–8 × 2–5.5 cm, almost membranous, both surfaces sparsely villous, abaxial surface with sessile glands, basal veins 3, lateral veins ca. 3 pairs, base rounded, apex acuminate or long acuminate; lateral leaflets obliquely ovate, smaller. Raceme axillary, slender, usually ± as long as petiole, pubescent; peduncles slender, 5–10 mm. Flowers clustered, ca. 1 cm. Calyx campanulate, 3–5 mm; lobes triangular, much shorter than tube, lower one longer, sparsely pubescent. Corolla yellow, longer than calyx, petals subequal; standard subcircular, base with inflexed auricles; keel apex with long beak. Ovary linear, 2-ovuled; style long and curved. Legume red, oblong, compressed, 1.2–1.5 × ca. 0.9 cm, apex with small beak. Seeds 1 or 2, usually black, reniform-orbicular, ca. 5 mm in diam. Fl. and fr. Jul–Oct.

Forests. Anhui, Guizhou, Jiangsu, Zhejiang [Japan].

**6. *Rhynchosia viscosa*** (Roth) Candolle, Prodr. 2: 387. 1825.

粘鹿藿 nian lu huo

*Glycine viscosa* Roth, Nov. Pl. Sp. 349. 1821.

Herbs. Stems twining, robust and slightly woody, densely gray viscous pubescent and with sticky glandular hairs. Leaves pinnately 3-foliolate; stipules small, usually lanceolate, 5–8 mm, pubescent, always persistent; petiole 4–9 cm, densely pubescent and with sticky glandular hairs; petiolules 1.6–2.5 cm; leaflets papery; terminal leaflet broadly elliptic or rhomboid-elliptic, 5–8 × 3.5–5 cm, both surfaces villous, abaxial surface with dense small yellow-brown sessile glands, basal veins 3, lateral veins 3–5 pairs, base rounded, apex usually acute, caudate-acuminate; lateral leaflets obliquely ovate to obliquely elliptic. Racemes solitary or a few clustered in axil, 7–22 cm; peduncle 2.8–3.9 cm, densely villous and glandular hairy. Calyx ca. 8 mm, exterior with glands; upper lobes triangular. Corolla ca. 2 × as long as

calyx. Legume oblong, ca.  $2 \times 1$  cm, pubescent, straight, apex with small beak, narrowed to both ends. Seeds 2, black, reniform, ca.  $5 \times 4$  mm.  $2n = 22$ .

Roadsides. Yunnan [India, Indonesia, Malaysia, Nepal, Sri Lanka, Thailand; Africa (widespread), Madagascar].

The Chinese material belongs to *Rhynchosia viscosa* var. *viscosa*. Verdcourt (Kew Bull. 25: 82–86. 1971) recognized three further varieties, all almost entirely restricted to Africa.

**7. *Rhynchosia chinensis*** H. T. Chang ex Y. T. Wei & S. K. Lee, Guihaia 5: 171. 1985.

中华鹿藿 zhong hua lu huo

Herbs. Stems twining or climbing, densely pubescent or sometimes sparsely villous. Leaves pinnately 3-foliolate; stipules small, ovate, ca. 4 mm, sparsely pubescent, deciduous; petiole 4–10 cm, densely pubescent; stipels bristlelike; petiolules ca. 3 mm, densely pubescent; leaflets thinly leathery; terminal leaflet lanceolate to ovate-lanceolate,  $9\text{--}15 \times 3.5\text{--}8$  cm, sparsely pubescent, abaxial surface with yellow-brown sessile glands, basal veins 3, lateral veins 3–5 pairs, base broadly cuneate or rounded, margin slightly sinuate, apex caudate-acuminate; lateral leaflet smaller, obliquely ovate. Raceme axillary, branched, up to 27 cm; bracts ovate, ca. 4 mm, deciduous; peduncle 1–3 cm, densely pubescent. Flowers small, ca. 1.1 cm, sparse; pedicels slender, 4–7 mm, pubescent. Calyx campanulate, ca. 5 mm, 5-lobed; lobes triangular, shorter than tube, sparsely hairy or almost glabrous. Corolla yellow, petals obviously stipitate, almost glabrous; standard ovate-orbicular or almost orbicular, ca. 1 cm, base with 2 slender auricles and accessory callosity; wings extremely narrow, apex acute, base with 2 auricles, one longer; keels slightly curved, with long beak. Ovary sparsely hairy; style linear, glabrous; stigma capitate. Legume reddish purple, oblong, ca.  $1.5 \times 1$  cm, compressed, glabrous or almost glabrous, slightly constricted between seeds, with small beak. Seeds blackish purple, suborbicular, ca. 4 mm in diam. Fl. and fr. summer and autumn. Fr. Sep.

- Mountains; ca. 600 m. Guangdong, Guangxi, Guizhou, Jiangxi.

**8. *Rhynchosia dielsii*** Harms, Bot. Jahrb. Syst. 29: 418. 1900.

菱叶鹿藿 ling ye lu huo

Herbs. Stems twining, slender, usually densely yellowish brown villous or sometimes pubescent. Leaves pinnately 3-foliolate; stipules small, lanceolate, 3–7 mm; petiole 3.5–8 cm, pubescent; stipels bristlelike, ca. 2 mm; petiolules 1–2 mm, pubescent; terminal leaflet ovate, ovate-lanceolate, broadly elliptic, or rhomboid-ovate,  $5\text{--}9 \times 2.5\text{--}5.3$  cm, densely pubescent, abaxial surface with sessile glands, basal veins 3, base rounded, apex acuminate or caudate-acuminate; lateral leaflets smaller, obliquely ovate. Raceme axillary, unbranched, 7–13 cm, pubescent; bracts lanceolate, 5–10 mm, deciduous; peduncle 4–6 mm. Flowers sparse, 8–10 mm. Calyx 5-lobed; lobes triangular, lower one longer, densely pubescent. Corolla yellow, petals all stipitate; standard obovate-circular, base with inflexed auricles at 2 sides; wings narrowly oblong, with 2 auricles, one longer and inflexed; keels auriculate, longer than or subequal to stan-

dard. Legume oblong or obovate,  $1.2\text{--}2.2 \times 0.8\text{--}1$  cm, compressed, reddish purple when mature, pubescent, slightly constricted between seeds. Seeds 2, suborbicular, ca. 4 mm in diam. Fl. Jun–Jul, fr. Aug–Nov.

- Mountains, roadsides; 600–2100 m. Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Shaanxi, Sichuan.

This plant is used medicinally.

**9. *Rhynchosia minima*** (Linnaeus) Candolle, Prodr. 2: 385. 1825.

小鹿藿 xiao lu huo

*Dolichos minimus* Linnaeus, Sp. Pl. 2: 726. 1753; *Dolicholus flavus* Medikus, nom. illeg. superfl.

Herbs, annual. Stems twining, slender, sparsely pubescent. Leaves pinnately 3-foliolate; stipules small, lanceolate, usually 1–2 mm; petiole 1–4 cm, glabrous or sparsely pubescent; stipels extremely small; petiolules extremely short; leaflets ± membranous; terminal leaflet rhomboid-circular,  $1.5\text{--}3 \times 1.5\text{--}3$  cm, sometimes wider than long, glabrous or sparsely villous, abaxially densely glandular, basal veins 3, apex obtuse or rounded, rarely shortly acute; lateral leaflets subequal to terminal leaflet or shorter, obliquely circular. Raceme 5–11 cm, axis slender, sparsely pubescent; bracts small, lanceolate, deciduous. Flowers 6–8 mm, slightly curved; pedicel extremely short. Calyx ca. 5 mm, sparsely pubescent; lobes lanceolate, slightly shorter than tube, lower one longer. Corolla yellow, longer than calyx, petals subequal; standard obovate-circular, base with 2 acute auricles; wings obovate-elliptic, auriculate; keels slightly curved, apex obtuse. Legume oblanceolate to ellipsoid,  $1\text{--}2 \times 0.4\text{--}0.5$  cm, pubescent, 1- or 2-seeded. Fl. May–Oct, fr. Sep–Nov.  $2n = 22$ .

Forests; 900–2500 m. Sichuan, Taiwan, Yunnan [Afghanistan, Bhutan, India, Indonesia, Japan (Ryukyu Islands), Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam; thought to be native in Africa and Asia, now pantropical].

This is a very variable species that has defied attempts to divide it into more homogeneous taxa.

**10. *Rhynchosia yunnanensis*** Franchet, Pl. Delavay. 185. 1890.

云南鹿藿 yun nan lu huo

Vines, herbaceous or sometimes almost woody, ca. 50 cm. Stems slightly robust, densely villous or tomentose, with dark brown sessile glands. Leaves pinnately 3-foliolate; stipules lanceolate, 4–8 mm, usually persistent; petiole 2.5–6 cm; stipels absent; petiolules 1–3 mm, hairy; leaflets papery; terminal leaflet reniform or oblate,  $2\text{--}3.7 \times 2.5\text{--}5.3$  cm, densely gray villous, with dark brown glands, basal veins 3, lateral veins 2–4 pairs, reticulate veins visible, base shallowly cordate to almost truncate, margin slightly sinuate, slightly reflexed when dried, apex rounded or almost truncate, usually with small mucro; lateral leaflets smaller, slightly oblique. Raceme axillary, rarely solitary or branched, 2–5 cm; peduncle 1–3.5 cm, densely hairy; bracts lanceolate, 4–7 mm, persistent. Flowers yellow, 1.4–2 cm; pedicel 2–8 mm. Calyx 5-lobed; lobes lanceolate, longer than tube, lower one longest. Standard subcircular or obovate-circular, 1–1.5 cm, glabrous, base with 2 auricles; wings elliptic

to obovate-elliptic, 7–13 mm, auriculate on one side; keel very wide, subobovate, 7–14 mm, without auricle. Ovary densely silky hairy, sessile; ovules 1 or 2; style linear, lower part silky hairy. Legume reddish brown, obovate-orbicular to ellipsoid, 2–2.5 × 0.7–0.8 cm, sparsely pubescent, apex beaked. Seeds dark brown, reniform or orbicular, 4–5 × 5–6 mm. Fl. May–Aug, fr. Jun–Oct.

- River valleys; 1800–2300 m. Yunnan.

**11. *Rhynchosia sericea*** Spanoghe, *Linnaea* 15: 195. 1841.

绒叶鹿藿 rong ye lu huo

*Dolichos tomentosus* Roth, Nov. Pl. Sp. 345. 1821, not *Rhynchosia tomentosa* (Linnaeus) Hooker & Arnott (1835); *R. rothii* Bentham ex Aitchison.

Vines, woody. Stems densely pubescent and yellow glandular. Leaves pinnately 3-foliolate; stipules ovate-lanceolate, 8–10 × 7–8 mm; petiole 4–6 cm; terminal petiolule 15–28 mm, densely hairy, lateral petiolules 3–4 mm; leaflets circular-rhomboid, 5–8 × 5–8 cm, both surfaces densely pubescent, basal veins 3, lateral veins 3 or 4 pairs, base rounded, apex rounded to nearly truncate, shortly mucronate. Raceme 11–16 cm, robust, many flowered, clustered. Calyx ca. 6 mm, densely hairy; lobes almost triangular, apex acute or acuminate, lobes shorter than or subequal to tube. Corolla reddish; standard obovate, 1.1–1.3 cm, densely hairy, auricles acute; wings obovate-oblong, shortest; keels falcate, subequal to standard, auriculate, apex obtuse. Ovary densely hairy, stipitate. Legume oblanceolate to ellipsoid, ca. 3 cm, compressed, pubescent, apex beaked. Seeds 2, reddish brown, reniform, ca. 3 × 4 mm. Fl. Apr–Nov, fr. Sep–Feb.  $2n = 22$ .

Grasslands. Fujian, Taiwan [Indonesia, Japan, Malaysia, Myanmar, Nepal, Pakistan, Thailand].

**12. *Rhynchosia himalensis*** Bentham ex Baker in J. D. Hooker, *Fl. Brit. India* 2: 225. 1876.

喜马拉雅鹿藿 xi ma la ya lu huo

Herbs. Stems twining, densely pubescent and with brownish glands. Leaves pinnately 3-foliolate; stipules narrowly ovate, 4–8 mm; petiole 2–6 cm; petiolules 1–2 cm; terminal leaflet broadly ovate or circular-rhomboid, 2.5–6 × 2.5–4.5 cm, densely pubescent mixed with glandular hairs, abaxial surface with light green glands, base rounded-cuneate, margin entire, apex acuminate; lateral leaflets oblique at base. Raceme axillary, sparsely flowered; bracts elliptic, 4–8 mm, apex acuminate; peduncle 4–7 mm. Calyx 5-lobed, hairy, exterior glandular; tube 3–4 mm; upper 2 lobes connate at base, narrowly triangular, 5–7 mm. Corolla yellow with obvious purple striations, 1.3–1.5 cm; standard broadly obovate, 1.5–1.8 × 1.1–1.3 cm, glabrous, base auriculate, with adaxial callosity at base, apex emarginate; wings glabrous, clawed, 12.5–13 mm, base auriculate, apex emarginate; keel crescent-shaped, inflexed, obviously longer than wings, 14.5–16 mm, apex obtuse, not auriculate. Ovary ca. 5 mm, densely minutely villous, stipe ca. 5 mm; style 13.5–15 mm. Legume 2.5–3 × ca. 0.9 cm, densely microvillous and glandular hairy.  $2n = 22$ .

Forest understories, river valleys, mountains, fields; 1200–3300

m. Sichuan, Xizang, Yunnan [India, Myanmar, Nepal, Pakistan].

- Flowers more than 5; lowest calyx lobe as long as corolla ..... 12a. var. *himalensis*
- Flowers 3–5; lowest calyx lobe shorter than corolla ..... 12b. var. *craibiana*

**12a. *Rhynchosia himalensis* var. *himalensis***

喜马拉雅鹿藿(原变种) xi ma la ya lu huo (yuan bian zhong)

Leaflets broadly ovate, 3–6 × 2.5–4.5 cm. Raceme 7–20 cm, more than 5-flowered. Lowest calyx lobe 10–15 mm, as long as corolla, linear-triangular.

Forest understories, river valleys; 1200–3300 m. Sichuan, Xizang [India, Myanmar, Nepal, Pakistan].

**12b. *Rhynchosia himalensis* var. *craibiana*** (Rehder) E. Peter, *Acta Horti Gothob.* 13: 448. 1940.

紫脉花鹿藿 zi mai hua lu huo

*Rhynchosia craibiana* Rehder in Sargent, *Pl. Wilson.* 2: 118. 1914.

Leaflets circular-ovate, 2.5–4.5 cm, length and width subequal. Raceme 6–9 cm, 3–5-flowered. Lowest calyx lobe 8–10 mm, shorter than corolla. Fl. Jul–Sep, fr. Aug–Oct.

• Forests, mountains, fields; 1300–3100 m. Sichuan, Xizang, Yunnan.

**13. *Rhynchosia kunmingensis*** Y. T. Wei & S. K. Lee, *Guihaia* 5: 171. 1985.

昆明鹿藿 kun ming lu huo

Vines. Stems twining, slender, pubescent and glandular hairy. Leaves pinnately 3-foliolate; stipules lanceolate, 5–7 mm, hairy; petiole slender, 2.5–4.5 cm, hairy; stipels absent; petiolules ca. 2 mm, hairy; leaflets papery; terminal leaflet rhomboid, 2.5–3.5 × 1.7–2.3 cm, both surfaces pubescent and with slender glands, basal veins 3, lateral veins 2 or 3 pairs, base broadly cuneate, apex shortly acuminate; lateral leaflets subequal to terminal leaflet, ± oblique, base rounded. Raceme 7–14 cm, many flowered, densely pubescent. Legume oblanceolate to oblanceolate-ellipsoid, ca. 2.5 × 0.7 cm, sparsely pubescent, apex long beaked, valves slightly inflexed after dehiscence. Seeds 2, dark brown, reniform, ca. 3 × 5 mm. Fr. Nov.

• Yunnan (Kunming).

