

## 29. Tribe FABEAE

野豌豆族 ye wan dou zu

Bao Bojian (包伯坚); Nicholas J. Turland, Gregory Kenicer

Herbs annual or perennial. Stems erect, trailing, or climbing by means of tendrils. Leaves usually paripinnate, with rachis terminating in a tendril, bristle, or mucro, very rarely imparipinnate or reduced to a phyllode; stipules often leaflike, oblique or semisagittate; leaflets 1- to many paired, margin entire, rarely dentate; stipels absent. Inflorescence an axillary raceme, or flowers in axillary fascicles or solitary. Calyx ± campanulate, equally or unequally 5-toothed. Corolla papilionaceous. Stamens 10; vexillary filament free or ± connate with others into an adaxially split sheath, free part of filaments filiform or distally dilated; anthers versatile, uniform. Ovary with 2 or more ovules; style hairy or glabrous. Legume usually laterally compressed, 2-valved, (1 or)2- to many seeded. Seeds globose, oblate, lenticular, or oblong.

Five genera and ca. 330 species: N temperate zone, extending to tropical E Africa, Pacific islands (Hawaii), and South America; four genera (two introduced) and 60 species (16 endemic, eight introduced) in China.

The fifth genus of the tribe is *Vavilovia* Fedorov, with one species, *V. formosa* (Steven) Fedorov, distributed in SW Asia.

The tribe Fabeae was incorrectly named Vicieae in FRPS. It must be called Fabeae because it includes the type of the family Fabaceae, *Faba* Miller (a synonym of *Vicia*); see the *Vienna Code* (Art. 19.4).

- 1a. Staminal tube oblique at apex; filaments filiform.
  - 2a. Style terete; seeds 2–8 ..... 164. *Vicia*
  - 2b. Style dorsally compressed; seeds 1 or 2 ..... 166. *Lens*
- 1b. Staminal tube not oblique at apex; filaments filiform or distally dilated.
  - 3a. Style distally dilated, upper side hairy; filaments filiform or distally dilated; stipules sagittate or semisagittate, usually smaller than leaflets ..... 165. *Lathyrus*
  - 3b. Style distally dilated and margin recurved forming a laterally compressed body, upper side hairy; filaments distally slightly dilated; stipules cordate, larger than leaflets ..... 167. *Pisum*

### Alternative key

- 1a. Calyx teeth all equal and at least 2 × as long as calyx tube ..... 166. *Lens*
- 1b. At least 2 calyx teeth less than 2 × as long as calyx tube.
  - 2a. Calyx teeth ± leaflike; stipules to 10 cm and larger than leaflets ..... 167. *Pisum*
  - 2b. Calyx teeth not leaflike; stipules not as above.
    - 3a. Style hairy all round distal part, hairy on lower side, or glabrous ..... 164. *Vicia*
    - 3b. Style hairy on upper side only ..... 165. *Lathyrus*

## 164. VICIA Linnaeus, Sp. Pl. 2: 734. 1753.

野豌豆属 ye wan dou shu

Bao Bojian (包伯坚); Nicholas J. Turland

*Ervum* Linnaeus; *Faba* Miller; *Vicioides* Moench.

Herbs annual or perennial. Stem usually branched, erect, trailing, or climbing by means of tendrils, usually slender, wingless. Leaves paripinnate with rachis terminating in a tendril, bristle, or mucro, rarely imparipinnate with rachis terminating in a leaflet (*Vicia subvillosa*); stipules entire or toothed at margin; leaflets 1–13-paired, margin entire. Inflorescence a raceme, or flowers in axillary fascicles or solitary; bracts usually absent or caducous. Calyx ± campanulate, equally or unequally toothed, often hairy; teeth not leaflike, at least 2 teeth less than 2 × as long as tube. Corolla various shades of blue, purple, red, yellow, or white; standard with a proximal claw and distal limb, apex retuse. Stamens diadelphous; staminal tube oblique at apex; filaments filiform. Ovary stalked or sessile; ovules 2–8; style terete, hairy all round distal part, hairy on lower side, or glabrous. Legume usually compressed, dehiscent along sutures. Seeds 2–8, globose, oblate, or oblong; hilum often elongate.

About 160 species: N temperate zone, extending to tropical E Africa, Pacific islands (Hawaii), and South America; 40 species (13 endemic, three introduced) in China.

- 1a. Leaf rachis terminating in a leaflet, bristle, or mucro.
  - 2a. Herbs annual; legume 50–100 × 20–30 mm; raceme rachis very short to nearly absent; plants cultivated ..... 40. *V. faba*
  - 2b. Herbs perennial; legume 20–50 × 5–8 mm; raceme rachis usually obvious; plants wild.
    - 3a. Leaflets 1-paired.
      - 4a. Raceme ± cylindrical, usually obviously longer than leaf; calyx glabrescent; leaflets ovate to lanceolate or rhombic-elliptic ..... 30. *V. unijuga*
      - 4b. Raceme abbreviated to capitate, shorter than leaf; calyx villous; leaflets broadly ovate to subrhomboid ..... 31. *V. ohwiana*

- 3b. Leaflets 2–7-paired.
- 5a. Plants 15–30 cm tall; leaflets 5–20 × 1–4 mm (Xinjiang).
- 6a. Leaflets linear, 10–20 × 1–2 mm; stipules divided nearly to middle into 5–7 unequal teeth; plants of steppes or foothills ..... 1. *V. subvillosa*
- 6b. Leaflets elliptic-lanceolate, 5–11 × 1.5–4 mm; stipules only dentate at base; plants of high mountains (2500–4200 m) ..... *V. semenovii* (see note under 1. *V. subvillosa*)
- 5b. Plants 30–100 cm tall; leaflets 20–85(–90) × 3–35 mm (mostly E and NE China, not Xinjiang).
- 7a. Raceme branched.
- 8a. Leaflets linear to narrowly lanceolate; stipules 10–15 × 3–5 mm ..... 28. *V. venosa*
- 8b. Leaflets lanceolate or ovate-lanceolate; stipules 8–12(–16) × 10–13 mm ..... 29. *V. ramuliflora*
- 7b. Raceme unbranched.
- 9a. Bracts persistent at base of pedicels ..... 25. *V. kulingana*
- 9b. Bracts absent or caducous.
- 10a. Stipules triangular or lanceolate, 3–6 × 1–3 mm; leaflets 3- or 4-paired, narrowly oblong to oblong-lanceolate; stem zigzagged ..... 26. *V. deflexa*
- 10b. Stipules obliquely ovate, 12–15 × 6–8 mm; leaflets 2-paired, ovate; stem straight ..... 27. *V. chianschanensis*
- 1b. Leaf rachis terminating in a tendril.
- 11a. Raceme very short, peduncle shorter than flowers.
- 12a. Herbs perennial ..... 37. *V. sepium*
- 12b. Herbs annual.
- 13a. Corolla white or yellow-white; plants densely yellow to brown villous; legume densely brown villous ..... 38. *V. pannonica*
- 13b. Corolla blue-purple or purple to red; plants puberulent to pubescent; legume glabrous to pubescent ..... 39. *V. sativa*
- 11b. Raceme long, peduncle often long.
- 14a. Raceme 1–4(–7)-flowered.
- 15a. Flowers to 5 mm.
- 16a. Legume glabrous; seeds 4; raceme 1- or 2-flowered; corolla 4–8 mm ..... 35. *V. tetrasperma*
- 16b. Legume hirsute; seeds 2; raceme 2–4(–7)-flowered; corolla 2–4 mm ..... 36. *V. hirsuta*
- 15b. Flowers 10–25 mm.
- 17a. Leaflets 8–11-paired ..... 33. *V. tetrantha*
- 17b. Leaflets 2–5-paired.
- 18a. Herbs perennial; leaflets linear, 2–3 mm wide; stipules linear-lanceolate ..... 32. *V. geminiflora*
- 18b. Herbs annual or short-lived perennial; leaflets linear-oblong, oblong, or narrowly oblong-oblongate to oblong-obovate, 2–8 mm wide; stipules semihastate ..... 34. *V. bungei*
- 14b. Raceme 5- to many flowered.
- 19a. Leaflets 5–10 × as long as wide; raceme 8–40-flowered.
- 20a. Herbs annual.
- 21a. Leaves (5–)10–15 cm; stipules 2–4(–10) mm; legume linear, 40–42 mm; corolla 11–12 mm ..... 6. *V. bakeri*
- 21b. Leaves 3–6 cm; stipules 7–12 mm; legume oblong or oblong-rhomboid, 20–40 mm; corolla 10–18 mm ..... 7. *V. villosa*
- 20b. Herbs perennial.
- 22a. Lateral veins of leaflets dense ..... 5. *V. megalotropis*
- 22b. Lateral veins of leaflets sparse and/or not obvious.
- 23a. Corolla 12–18 mm, limb of standard longer than claw ..... 4. *V. tenuifolia*
- 23b. Corolla 8–13(–15) mm, limb of standard subequaling claw.
- 24a. Leaflets linear, linear-lanceolate, or oblong, 11–30 × 2–4 mm ..... 2. *V. cracca*
- 24b. Leaflets oblong-ovate, 25–45 × 5–8 mm ..... 3. *V. lilacina*
- 19b. Leaflets 2.5–5 × as long as wide; raceme 5–15-flowered.
- 25a. Stipules 8–20 mm.
- 26a. Leaflets 2–6(–10) × 1–3.5 cm, apex obtuse or acuminate, mucronate ..... 8. *V. pseudo-orobus*
- 26b. Leaflets 1.3–4 × 0.5–1.8 cm, apex rounded and retuse ..... 9. *V. amoena*
- 25b. Stipules 3–12 mm.
- 27a. Corolla white to yellow, brown-yellow, or pink or purple (in *V. sinogigantea*), sometimes veined or marked with purple, purple-blue, or violet.
- 28a. Corolla standard ca. 7 mm; legume 10–20 mm; plants persistently white pilose ..... 18. *V. sinogigantea*
- 28b. Corolla standard 7–13 mm; legume 20–40 mm; plants pilose, puberulent, or glabrous, sometimes youngest growth densely brownish villous (in *V. dichroantha*).
- 29a. Leaflets 4–18(–34) × 1–6 mm.

- 30a. Raceme shorter than or subequaling leaf; corolla yellow; leaflets elliptic ..... 23. *V. nummularia*  
 30b. Raceme obviously longer than leaf; corolla yellow, light yellow, or white; leaflets  
 oblong-lanceolate or elliptic ..... 24. *V. costata*  
 29b. Leaflets 15–50 × 5–15 mm.  
 31a. Raceme shorter than leaf; corolla white with fine purple-blue veins ..... 22. *V. wushanica*  
 31b. Raceme longer than leaf; corolla pale greenish cream, yellow, or brown-yellow, sometimes  
 marked purple or veined violet on standard.  
 32a. Stipules entire at margin; raceme 5–15-flowered, rachis slender; leaflets elliptic to  
 ovate-oblong ..... 19. *V. taipaiica*  
 32b. Stipules 2- or 3-toothed at margin; raceme 20–25-flowered, rachis strong and straight;  
 leaflets linear to linear-lanceolate ..... 20. *V. dichroantha*  
 27b. Corolla blue, blue-purple, purple, or red.  
 33a. Lateral veins of leaflets inclined forward, sparse.  
 34a. Raceme obviously shorter than leaf, bracts present ..... 13. *V. latibracteolata*  
 34b. Raceme subequaling or longer than leaf, bracts absent.  
 35a. Leaflets linear to oblong; corolla 13–17 mm ..... 14. *V. multicaulis*  
 35b. Leaflets narrowly lanceolate to ovate; corolla 10–14 mm.  
 36a. Leaflets markedly discolored, abaxially pale green, adaxially green, narrowly  
 lanceolate to lanceolate-ovate ..... 16. *V. chinensis*  
 36b. Leaflets not markedly discolored, lanceolate-ovate to ovate or elliptic, rarely narrowly  
 lanceolate-elliptic ..... 15. *V. japonica*  
 33b. Lateral veins of leaflets spreading horizontally, dense.  
 37a. Raceme densely 15–30-flowered; leaflets oblong or oblong-ovate to elliptic.  
 38a. Raceme subequaling leaf; leaflet apex retuse and entire; corolla blue-purple or white, rarely  
 purple; legume rhomboid or suboblong ..... 12. *V. amurensis*  
 38b. Raceme obviously longer than leaf; leaflet apex truncate, 3- or 4-toothed, and mucronate;  
 corolla blue; legume linear ..... 21. *V. ternata*  
 37b. Raceme sparsely 4–16(–20)-flowered; leaflets narrowly oblong to narrowly ovate-elliptic.  
 39a. Corolla 7–8(–14) mm, strongly bent upward at middle forming a 90° angle ..... 17. *V. kiochanica*  
 39b. Corolla 10–11 mm, not bent as strongly as above.  
 40a. Stipules triangular, margin 3–5-toothed; raceme longer than leaf; leaflet apex obtuse,  
 mucronate ..... 10. *V. tibetica*  
 40b. Stipules small, bifid; raceme subequaling leaf; leaflet apex truncate or rounded,  
 mucronate ..... 11. *V. perelegans*

**1. *Vicia subvillosa*** (Ledebour) Boissier, Fl. Orient. 2: 580. 1872–1873.

疏毛野豌豆 shu mao ye wan dou

*Orobis subvillosus* Ledebour, Fl. Altaic. 3: 359. 1831;  
*Lathyrus subvillosus* (Ledebour) Aitchison & Hemsley; *O. triflorus* Beck ex Stapf; *Vicia subvillosa* var. *stenophylla* M. Popov.

Herbs perennial, 15–30 cm tall, sparsely to densely vil-  
 lous. Leaves usually imparipinnate, 1.5–4 cm; stipules digitate-  
 hastate, divided nearly to middle into 5–7 narrowly triangular,  
 unequal teeth; leaflets 2–4-paired and usually also 1 terminal,  
 linear, 10–20 × 1–2 mm, apex acute, mucronate; tendril absent.  
 Raceme 4–8 cm, longer than leaf, 2–4-flowered. Calyx tube ca.  
 5 mm; teeth ca. 2 mm. Corolla purple, with dark patch on abax-  
 ial surface of standard and pale yellow wings, 1.8–2 cm; stan-  
 dard longer than wings and keel. Legume light brown, narrowly  
 oblanceolate, gradually narrowed toward base, abruptly nar-  
 rowed at apex, 25–40 × 6–10 mm, glabrous; persistent style  
 curved, 5–7 mm. Seeds 2–4. Fl. Apr–May, fr. May–Jun.

Steppes or foothills. W Xinjiang [Afghanistan, Kazakhstan, Kyr-  
 gyzstan, Mongolia, Russia (Altai), Tajikistan, Turkmenistan, Uzbeki-  
 stan; SW Asia (Iran)].

*Vicia subvillosa* is included here on the basis of two specimens  
 collected during the 19th century in what is now Xinjiang: “Songaria  
 chinensis, ad lacum Saisang-Nor,” 1838, *C. A Meyer 18095* (BM!) and  
 “Songaria chin. ad lacum Saisang-Nor” [without date or collector] (K!).  
 Confirmation of its continued presence in China is needed. The species  
 was also recorded from Xinjiang by Chang Y. Yang (*Claves Pl. Xin-  
 jiang*. 3: 193. 1985).

Very similar plants in Afghanistan, Iran, and Turkmenistan are  
 separated as *Vicia iranica* Boissier (Fl. Orient. 2: 581. 1872–1873;  
*Orobis persicus* Boissier, Diagn. Pl. Orient., ser. 1, 2: 107. 1843, not *V.  
 persica* Boissier, 1843).

*Vicia semenovii* (Regel & Herder) B. Fedtschenko (Trudy Imp. S.-  
 Peterburgsk. Bot. Sada 24: 245. 1905, “*semenowi*”; *Orobis semenovii*  
 Regel & Herder, Bull. Soc. Imp. Naturalistes Moscou 39(2): 35. 1866)  
 was recorded from Xinjiang by Chang Y. Yang (*Claves Pl. Xinjiang*. 3:  
 194. 1985). This species differs from *V. subvillosa* in having stipules  
 only dentate at the base and leaflets elliptic-lanceolate and larger (5–11  
 × 1.5–4 mm). It is otherwise known from high mountains (2500–4200  
 m) in Kazakhstan, Kyrgyzstan, Mongolia, and Tajikistan. However, the  
 present authors found no relevant specimens and therefore could not  
 substantiate the occurrence of this species in China.

**2. *Vicia cracca*** Linnaeus, Sp. Pl. 2: 735. 1753.

广布野豌豆 guang bu ye wan dou

*Ervum cracca* (Linnaeus) Trautvetter; *Vicia cracca* f.

*canescens* Maximowicz; *V. cracca* var. *canescens* (Maximowicz) Franchet & Savatier; *V. cracca* subsp. *heteropus* Freyn; *V. cracca* var. *japonica* Miquel.

Herbs perennial, 40–150 cm tall. Stem climbing or trailing, hairy (sometimes densely gray-white villous) or glabrescent. Leaves paripinnate; stipules semihastate; leaflets 5–12-paired, linear, linear-lanceolate, or oblong, 11–30 × 2–4 mm, margin entire, apex rounded or acute, mucronate; lateral veins sparse, not obvious; tendrils 2- or 3-branched. Raceme subequaling leaf, 10–40-flowered. Calyx campanulate. Corolla purple, blue-purple, or purple-red, 8–13(–15) mm; standard violin-shaped, equaling wings and longer than keel, limb (distal part) of standard subequaling claw (proximal part). Ovary stalked; ovules 4–7. Legume oblong or oblong-rhomboid, 20–25 × ca. 5 mm, apex beaked. Seeds 3–6. Fl. (Dec), Apr–Sep, fr. May–Oct.  $2n = 12, 14, 21, 22, 24, 28$ .

Forest margins, thickets, scrub, hill slopes, valleys, grasslands, meadows, streambanks, wet sandy land, alluvium, fields, roadsides; below 4200 m. Anhui, Chongqing, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Jiangxi, Jilin, Liaoning, Nei Mongol, Shaanxi, Shanghai, Shanxi, Sichuan, Taiwan (?introduced), Xinjiang, Xizang, Yunnan, Zhejiang [Japan, Kazakhstan, Korea, Kyrgyzstan, Mongolia, Russia, N Vietnam; SW Asia, Europe; introduced and naturalized elsewhere].

### 3. *Vicia lilacina* Ledebour, Fl. Altaic. 3: 348. 1831.

阿尔泰野豌豆 a er tai ye wan dou

*Ervum cracca* (Linnaeus) Trautvetter var. *lilacinum* (Ledebour) Trautvetter; *Vicia cracca* Linnaeus f. *lilacina* (Ledebour) Krylov; *V. cracca* var. *lilacina* (Ledebour) Krylov.

Herbs perennial, 50–100 cm tall. Stem erect, white puberulent. Leaves paripinnate, 13–14 cm; stipules semihastate, bifid; leaflets 6- or 7-paired, oblong-ovate, 25–45 × 5–8 mm, apex obtuse or acuminate, mucronate; lateral veins not obvious; tendrils 2- or 3-branched. Raceme ca. 15 cm, slightly longer than leaf, sparsely ca. 15-flowered. Calyx campanulate, hairy outside. Corolla blue-purple; standard violin-shaped, 11–12 mm, subequaling wings and longer than keel, limb (distal part) of standard subequaling claw (proximal part). Ovary fusiform, glabrescent; ovules ca. 8. Legume not seen. Fl. Jun–Sep.

Xinjiang [Russia (Siberia)].

This taxon is perhaps not distinct from the very variable and widespread *Vicia cracca*.

### 4. *Vicia tenuifolia* Roth, Tent. Fl. Germ. 1: 309. 1788.

细叶野豌豆 xi ye ye wan dou

*Ervum tenuifolium* (Roth) Trautvetter (1875), not Lagas y Segura (1816); *Vicia brachytropis* Karelin & Kirilov; *V. cracca* Linnaeus subsp. *tenuifolia* (Roth) Gaudin; *V. cracca* var. *tenuifolia* (Roth) Beck.

Herbs perennial, to 100 cm tall. Stem erect, strong, puberulent. Leaves paripinnate; stipules semihastate, bifid; leaflets 6–13-paired, linear or linear-lanceolate, 10–30 × 2–6 mm, subleathery, abaxially white hairy, adaxially glabrous, margin entire, apex obtuse, mucronate; lateral veins sparse; tendrils 2- or

3-branched. Raceme 15–30 cm, 20–30-flowered, densely hairy. Calyx shortly campanulate. Corolla purple, rarely white, 12–18 mm; standard violin-shaped, ca. 14 × 4 mm, equaling wings and longer than keel, limb (distal part) of standard longer than claw (proximal part). Ovary linear; ovules 5–9. Legume oblong-lanceolate, 18–30 × 3–7 mm, both ends acuminate. Seeds 4–7. Fl and fr. Jun–Sep.  $2n = 12, 14, 24$ .

Forests, dry grasslands, slopes. Xinjiang [Afghanistan, N India, Japan, Kashmir, Kazakhstan, Korea, Kyrgyzstan, N Mongolia, Nepal, N Pakistan, Russia, Tajikistan, Uzbekistan, Vietnam; NW Africa, SW Asia, Europe].

### 5. *Vicia megalotropis* Ledebour, Fl. Altaic. 3: 344. 1831.

大龙骨野豌豆 da long gu ye wan dou

*Ervum megalotropis* (Ledebour) Trautvetter; *Vicia humilis* Rong He (1994), not Kunth (1824); *V. megalotropis* f. *stenophylla* Franchet.

Herbs perennial, erect, 50–80 cm tall. Leaves paripinnate; stipules lanceolate or semihastate, 5–8 mm, margin 1- or 2-toothed proximally; leaflets 7–12-paired, linear to lanceolate, 20–35(–40) × 1.5–4(–6) mm, appressed hairy, apex obtuse or acute; lateral veins dense; tendrils branched, 1–3 cm. Raceme subequaling leaf, densely 10–20-flowered. Calyx campanulate; lower tooth longer. Corolla purple-red, 12–15 mm; standard longer than wings and keel. Legume rhomboid or oblong, 20–25 × ca. 5 mm. Seeds 3–6. Fl. and fr. Mar–Jul.  $2n = 14$ .

Rocky or sandy land; 600–1000 m. Gansu, Hebei, Shaanxi, Sichuan, Xinjiang [Kazakhstan, Mongolia, Russia (Siberia)].

### 6. *Vicia bakeri* Ali, Bot. Not. 120: 52. 1967.

察隅野豌豆 cha yu ye wan dou

*Vicia longidentata* Z. D. Xia.

Herbs annual, (30–)60–80 cm tall. Stem puberulent, rarely villous. Leaves paripinnate, (5–)10–15 cm; stipules semitriangular or triangular-hastate, 2–4(–10) × 6–10 mm, margin 3- or 4-toothed; leaflets (5–)7–11-paired, narrowly oblong to elliptic or obovate, (14–)16–25 × (4–)5–7 mm, membranous, abaxially hairy, rarely both surfaces villous, margin sometimes thickened, apex obtuse or truncate, mucronate; lateral veins dense, obvious; tendrils branched. Raceme subequaling (rarely obviously longer than) leaf, (6–)10–14 cm, (8–)10–14-flowered. Calyx campanulate or obliquely so, unequally toothed. Corolla purple or light purple; standard oblong, 11–12 × 4–6 mm, subequaling wings and longer than keel. Ovary fusiform or nearly so; ovules 4(–6). Legume linear, 40–42 × 8–9 mm, glabrous. Seeds 3 or 4. Fl. Apr–Sep, fr. Jul–Sep.

Forests, bush woods, among shrubs, hill slopes, grasslands, roadsides; 2300–3600 m. Sichuan, Xizang, Yunnan [N India (Himachal Pradesh, Uttar Pradesh), Kashmir, Nepal, Pakistan].

Plants in Sichuan with stem shorter (30–70 cm), villous, leaves smaller (5–8 cm), leaflets fewer (5–9 paired), narrowly oblong to elliptic, slightly smaller (1.4–1.8 × 0.4–0.6 cm), villous on both surfaces, and raceme shorter (6–10 cm, longer than leaf) have been called *Vicia longidentata* (misspelled as “*V. longicuspis*” in FRPS 42(2): 233, 239, 240, 455. 1998). These characters overlap considerably with those of *V. bakeri*, with which it seems best, therefore, to unite *V. longidentata*.

**7. *Vicia villosa*** Roth, Tent. Fl. Germ. 2(2): 182. 1793.

长柔毛野豌豆 chang rou mao ye wan dou

Herbs annual, 30–150 cm tall, villous or sericeous, or puberulent to glabrous. Stem climbing, much branched. Leaves paripinnate, 3–6 cm; stipules lanceolate to semitruncate or bifid to semihastate, 7–12 mm; leaflets 4–12-paired, linear to oblong or lanceolate, 10–30 × 3–7 mm, apex obtuse, acute, or acuminate, mucronate; lateral veins dense or not obvious; tendril 2- or 3-branched. Raceme shorter than to slightly longer than leaf, 10–30-flowered. Calyx obliquely campanulate, unequally toothed; lower teeth equaling or longer than tube or all teeth shorter than tube. Corolla purple-blue, purple, light purple, light red, light blue, or rarely white, 10–18 mm; standard linear or oblong, constricted at middle; wings shorter than standard and longer than keel. Legume oblong or oblong-rhomboid, 20–40 × 4–12 mm, apex beaked. Seeds 2–8, globose or obovate-globose, ca. 3 mm in diam. Fl. and fr. Apr–Oct.  $2n = 14, 28$ .

Cultivated and possibly naturalized; scrub, streamsides, farms, fields and field margins, roadsides; near sea level to 1800 m. Gansu, Guangdong, Guizhou, Hebei, Hunan, Jiangsu, Nei Mongol, Shandong, Taiwan, Xinjiang, Zhejiang [native to N Africa, C and SW Asia, N Atlantic islands (Canary Islands), and Europe; widely introduced and naturalized elsewhere].

- 1a. Plants villous or sericeous; lower calyx teeth equaling or longer than calyx tube; raceme subequaling or slightly longer than leaf ..... 7a. subsp. *villosa*  
 1b. Plants puberulent to glabrous; all calyx teeth shorter than calyx tube; raceme usually shorter than or equaling leaf ..... 7b. subsp. *varia*

**7a. *Vicia villosa* subsp. *villosa***

长柔毛野豌豆(原亚种) chang rou mao ye wan dou (yuan ya zhong)

*Ervum villosum* (Roth) Trautvetter (1875), not Pomel (1874); *Vicia villosa* var. *alba* Y. Q. Zhu.

Plants villous or sericeous. Raceme subequaling or slightly longer than leaf. Calyx: lower teeth equaling or longer than tube. Fl. and fr. Apr–Oct.  $2n = 14, 28$ .

Cultivated and possibly naturalized; streamsides, field margins; near sea level to 1800 m. Gansu, Guangdong, Guizhou, Hebei, Hunan, Jiangsu, Nei Mongol, Shandong, Xinjiang, Zhejiang [native to SW Asia and Europe, but exact native distribution uncertain; widely cultivated and naturalized].

**7b. *Vicia villosa* subsp. *varia*** (Host) Corbière, Nouv. Fl. Normandie, 181. 1894.

欧洲苕子 ou zhou tiao zi

*Vicia varia* Host, Fl. Austriac. 2: 332. 1831.

Plants puberulent to glabrous. Raceme usually shorter than or equaling leaf. Calyx: all teeth shorter than tube. Fl. and fr. Jun–Aug.  $2n = 14, 28$ .

Cultivated and possibly naturalized; scrub, farms, fields, roadsides. Guangdong, Shandong, Taiwan [native to N Africa, SW Asia, N

Atlantic islands (Canary Islands), and Europe; widely introduced and naturalized elsewhere].

**8. *Vicia pseudo-orobus*** Fischer & C. A. Meyer, Index Sem. Hort. Petrop. 1: 41. 1835.

大叶野豌豆 da ye ye wan dou

*Ervum pseudo-orobus* (Fischer & C. A. Meyer) Trautvetter; *Vicia pseudo-orobus* f. *albiflora* (Nakai) P. Y. Fu & Y. A. Chen; *V. pseudo-orobus* var. *albiflora* Nakai; *V. pseudo-orobus* f. *breviramea* P. Y. Fu & Y. C. Teng; *V. pseudo-orobus* var. *semistipulata* Handel-Mazzetti.

Herbs perennial, 50–150(–200) cm tall. Stem erect or climbing, green or yellow with black-brown spots, puberulent when young, later glabrescent. Leaves paripinnate, 2–17 cm; stipules hastate, 8–15 mm, margin toothed; leaflets 2–5-paired, elliptic or lanceolate, often narrowly so, 20–60(–100) × 10–35 mm, membranous, abaxially pilose or glabrescent, adaxially glabrous, apex obtuse or acuminate, mucronate; lateral veins obvious; tendril well-developed, 2- or 3-branched. Raceme unbranched, longer than leaf, 5–18 cm, rarely branched and very short, 15–30-flowered. Calyx obliquely campanulate, shortly toothed. Corolla blue-purple, purple, pink, pale yellow, or white, 10–15 mm; standard subequaling wings and keel. Ovary glabrous; ovules 2–6. Legume brown-yellow, oblong, flat, 20–35 × 6–8 mm. Seeds 2–6. Fl. Jun–Sep, fr. Jul–Oct.  $2n = 12, 14$ .

Forests, forest margins, thickets, scrub, hill slopes, sunny slopes, valleys, ravines, meadows, pastures, dry limestone areas, fields; 400–3000 m. Anhui, Gansu, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangsu, Jilin, Liaoning, Nei Mongol, Shaanxi, Shandong, Shanxi, Sichuan, Yunnan [Japan, Korea, Mongolia, Russia (Far East, E Siberia)].

**9. *Vicia amoena*** Fischer ex Seringe in Candolle, Prodr. 2: 355. 1825.

山野豌豆 shan ye wan dou

*Ervum amoenum* (Fischer ex Seringe) Trautvetter; *Vicia amoena* f. *albiflora* P. Y. Fu & Y. A. Chen; *V. amoena* var. *angusta* Freyn; *V. amoena* var. *lanata* Franchet & Savatier; *V. amoena* var. *macrophylla* Litvinov ex B. Fedtschenko; *V. amoena* var. *oblongifolia* Regel; *V. amoena* subsp. *sericea* (Kitagawa) Kamelin & Gubanov; *V. amoena* var. *sericea* Kitagawa.

Herbs perennial, 30–100(–180) cm tall, pilose, rarely densely white sericeous. Stem much branched, slender. Leaves subsessile, paripinnate, 5–12 cm; stipules semihastate, 8–20 mm, margin 3- or 4-toothed; leaflets 4–7-paired, elliptic to ovate-lanceolate, rarely oblong or lanceolate, 13–40 × 5–18 mm, adaxially appressed villous, apex rounded and retuse; lateral veins obvious; tendril 2- or 3-branched. Raceme usually longer than leaf, densely 10–20(–30)-flowered. Calyx obliquely campanulate, unequally toothed. Corolla blue, blue-purple, red-purple, or white; standard obovate, 10–16 × 5–6 mm, subequaling wings and longer than keel. Ovary glabrous; ovules ca. 6. Legume oblong, 18–28 × 4–6 mm, glabrous, both ends acuminate. Seeds 1–6. Fl. Apr–Sep, fr. Jul–Oct.  $2n = 12, 14, 24$ .

Forests, forest margins, woods, bush woods, scrub, dry slopes with *Juniperus*, grasslands, hills, hill slopes, riverbanks, sides of irrigation ditches, dry rocky banks, fixed sand dunes, fields, abandoned fields, wastelands, roadsides; near sea level to 4000 m. Anhui, Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Nei Mongol, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xizang, Yunnan [Japan, Kazakhstan, Korea, Mongolia, Russia (Far East, Siberia)].

**10. *Vicia tibetica*** Prain ex C. E. C. Fischer, Bull. Misc. Inform. Kew 1938: 285. 1938.

西藏野豌豆 xi zang ye wan dou

Herbs perennial, 10–250 cm tall. Stem branched, puberulent or glabrescent. Leaves paripinnate, 4–7 cm; stipules triangular, margin 3–5-toothed; leaflets 3–6-paired, oblong, (4–)10–20 × (1.5–)3–7 mm, apex obtuse and mucronate; veins dense, raised on both surfaces; tendril 2- or 3-branched. Raceme 6–7.5 cm, longer than leaf, sparsely 4–13-flowered. Calyx obliquely campanulate, ca. 6 mm, unequally toothed, rarely villous. Corolla red, through purple, to blue, or paler, sometimes with deeper venation and orange in throat, 10–11 mm; standard constricted at middle, subequaling wings and longer than keel. Ovary fusiform, ca. 3 mm; ovules 2–6. Legume oblong, flat, ca. 20 × 6 mm, glabrous, both ends narrowed. Seeds 1–4, oblong. Fl. Apr–Sep, fr. May–Sep.

Forests, scrub, under *Juniperus* on limestone ridges, hill slopes, open meadows and pastures, ravines, rocky places, along irrigation channels, cultivated land, margins of cultivation; 1300–4300 m. Qinghai, Sichuan, Xizang, Yunnan [Bhutan, NE India].

**11. *Vicia perelegans*** K. T. Fu, Fl. Tsinling. 1(3): 449. 1981.

精致野豌豆 jing zhi ye wan dou

Herbs perennial, 20–40 cm tall, pilose. Stem much branched, puberulent. Leaves paripinnate, 2–6 cm; stipules small, bifid; leaflets 5–8-paired, narrowly oblong or narrowly ovate-elliptic, 5–17 × 3–5 mm, subleathery, abaxially hairy along midrib, apex truncate or rounded, mucronate; lateral veins 8–15-paired; petiolules ca. 1 mm; tendril 2- or 3-branched. Raceme subequaling leaf, 4–7 cm, sparsely 7–10-flowered; pedicels hairy. Calyx obliquely campanulate, ca. 4 mm, pilose. Corolla purple or blue, 10–11 mm; standard oblong or narrowly obovate, ca. 10 × 4 mm, slightly longer than wings and shorter than keel, apex retuse. Ovary glabrous; ovules 4 or 5. Legume oblong, ca. 25 × 7 mm, both ends acute. Seeds 2 or 3. Fl. Apr–May, fr. Jul–Oct.

• Hill slopes, valleys, grasslands, roadsides; 800–1300 m. Gansu, Shaanxi, Sichuan.

**12. *Vicia amurensis*** Oettingen, Trudy Bot. Sada Imp. Yur'evsk. Univ. 6: 143. 1906.

黑龙江野豌豆 hei long jiang ye wan dou

*Vicia amurensis* f. *alba* H. Ohashi & Tateishi; *V. amurensis* var. *pratensis* (Komarov) H. Hara; *V. amurensis* f. *sanheensis* Y. Q. Jiang & S. M. Fu; *V. amurensis* var. *silvatica* (Komarov) H. Hara; *V. japonica* A. Gray subsp. *amurensis* (Oettingen) Kitamura; *V. japonica* var. *pratensis* Komarov; *V. japonica* var. *silvatica* Komarov; *V. pallida* Turczaninow var. *pratensis* (Komarov) Nakai; *V. vaniotii* H. Léveillé.

Herbs perennial, 50–100 cm tall, glabrescent. Stem climbing. Leaves sessile, paripinnate, 5–15 cm; stipules semihastate, bifid, margin 3–5-toothed; leaflets 3–6-paired, oblong-ovate to elliptic, 16–30 × 9–16 mm, puberulent at first, later glabrescent, apex retuse and entire; lateral veins dense; tendril 2- or 3-branched. Raceme subequaling leaf, densely 15–30-flowered. Calyx obliquely campanulate, unequally toothed. Corolla blue-purple or white, rarely purple; standard oblong or nearly obovate, ca. 10 × 6 mm, subequaling wings and longer than keel. Ovary glabrous; ovules 1–6. Legume rhomboid or suboblong, 15–25 mm. Seeds 1–5. Fl. Jun–Sep, fr. Aug–Sep.  $2n = 12, 14$ .

Forests, forest margins, hill slopes, grasslands, meadows, sandy land along rivers, weed communities; 400–800 m. Beijing, Heilongjiang, Jilin, Liaoning, Nei Mongol, Shanxi [Japan, Korea, Mongolia, Russia (Far East, E Siberia)].

**13. *Vicia latibracteolata*** K. T. Fu, Fl. Tsinling. 1(3): 449. 1981.

宽苞野豌豆 kuan bao ye wan dou

*Vicia latibracteolata* var. *acerosa* K. T. Fu.

Herbs perennial, 60–120 cm tall. Stem erect, few branched, pilose. Leaves paripinnate, 9–11 cm; stipules semihastate, rhomboid to lanceolate, bifid, 5–12 mm; leaflets usually 9-paired, linear-lanceolate, ovate-lanceolate, or oblong, 12–27 × 7–11 mm, apex rounded or acuminate, mucronate; lateral veins 9–13-paired, joined at margin; tendril 2- or 3-branched. Raceme obviously shorter than leaf, 6–10 cm, densely 10–20-flowered; bracts present. Calyx subcampanulate, unequally toothed, pilose. Corolla purple, purple-red, or light purple with some pink; standard oblong, ca. 14 × 5 mm, subequaling wings and longer than keel. Ovary linear, ca. 5 mm, glabrous; ovules ca. 6. Legume narrowly oblong, 20–25 mm, apex beaked. Seeds 3–6. Fl. and fr. Jun–Aug.

• Hill slopes, grasslands, riverbanks; 900–2800 m. Gansu, Henan, Ningxia, Shaanxi.

**14. *Vicia multicaulis*** Ledebour, Fl. Altaic. 3: 345. 1831.

多茎野豌豆 duo jing ye wan dou

*Ervum megalotropis* (Ledebour) Trautvetter var. *multicaulis* (Ledebour) Trautvetter; *Vicia megalotropis* Ledebour var. *multicaulis* (Ledebour) Krylov; *V. nervata* Siplivinsky.

Herbs perennial, 10–60 cm tall. Stem much branched, puberulent or glabrescent. Leaves paripinnate; stipules semihastate, 3–6 mm; leaflets 4–8-paired, linear to oblong, 10–20 × ca. 3 mm, abaxially pilose, apex mucronate; lateral veins very obvious; tendril unbranched or branched. Raceme longer than leaf, 14- or 15-flowered; bracts absent. Calyx campanulate, unequally toothed. Corolla purple or blue-purple, 13–17 mm; standard oblong-obovate, constricted at middle, longer than wings and keel. Ovary linear. Legume flat, 30–35 mm, apex beaked. Seeds dark brown, obovate-spheroid. Fl. and fr. Jun–Sep.  $2n = 12, 24$ .

Scrub, mountain summits, dry and hilly slopes, grasslands, clay cliffs, gravels, sandy land; below 4300 m. Beijing, Gansu, Heilongjiang, Jilin, Nei Mongol, Qinghai, Shaanxi, Tianjin, Xinjiang, Xizang [Japan, E Kazakhstan, Mongolia, Russia (European part, Siberia)].

**15. *Vicia japonica*** A. Gray, Mem. Amer. Acad. Arts, n.s., 6: 385. 1858.

东方野豌豆 *dong fang ye wan dou*

*Ervum amoenum* (Fischer ex Seringe) Trautvetter var. *pallidum* Trautvetter; *Vicia amurensis* Oettingen var. *pallida* Kitagawa; *V. japonica* var. *comosa* Boissier; *V. japonica* var. *laxiracemis* Ohwi; *V. japonica* subsp. *pallida* Voroschilov; *V. japonica* var. *pallida* H. Hara; *V. pallida* Turczaninow (1842), not Hooker & Arnott (1833); *V. pallida* Turczaninow var. *japonica* (A. Gray) Matsumura; *V. woroschilovii* N. S. Pavlova.

Herbs perennial, 60–120 cm tall. Stem climbing or trailing, yellow-white hairy at first, later glabrescent. Leaves paripinnate, 5–15 cm; stipules linear or linear-lanceolate, 5–7 × ca. 1 mm, margin toothed; leaflets 5–8-paired, not markedly discolorous, lanceolate-ovate to ovate or elliptic, rarely narrowly lanceolate-elliptic, 10–30 × 6–14 mm, abaxially puberulent, adaxially glabrous, apex obtuse and retuse, mucronate; lateral veins sparsely 7–9-paired; tendril 2- or 3-branched. Raceme subequaling or slightly longer than leaf, 7–15-flowered, villous; bracts absent. Calyx campanulate, unequally toothed, villous. Corolla blue or purple; standard oblong, 10–14 mm, subequaling wings and longer than keel, apex retuse. Ovary linear, 6–12 mm; ovules 2–7. Legume oblong-rhomboid, 15–25 mm, apex beaked. Seeds 1–3, oblate-spheroid. Fl. and fr. Jun–Sep.  $2n = 12, 14, 24$ .

Forest margins, hill slopes, valleys, meadows, riverbanks; 600–3700 m. Heilongjiang, Jilin, Liaoning, Nei Mongol, Shaanxi [Japan, Korea, Mongolia, Russia (Far East, E Siberia)].

**16. *Vicia chinensis*** Franchet, Pl. Delavay. 177. 1890.

华野豌豆 *hua ye wan dou*

*Lathyrus hupehensis* (Pampanini) E. Peter; *L. sargentianus* Craib; *Orobis hupehensis* (Pampanini) Stankevicz; *Vicia hupehensis* Pampanini.

Herbs perennial, 150–200 cm tall. Stem branched from base, slender, sparsely pilose or glabrescent. Leaves subsessile, paripinnate, 8–16 cm; stipules semihastate, bifid, margin entire or toothed; leaflets 4–7-paired, markedly discolorous, abaxially pale green, adaxially green, narrowly lanceolate to lanceolate-ovate, 10–45 × 7–15 mm, leathery, both surfaces sparsely villous or glabrescent, apex obtuse or retuse, mucronate; tendril 2- or 3-branched. Raceme 6–17 cm, subequaling or longer than leaf, 5–25-flowered, puberulent or glabrous; bracts absent. Calyx subcampanulate, shortly and unequally toothed. Corolla blue-purple to purple-red, red, yellow, or pale yellow, 10–13 mm; standard slightly longer than keel. Ovary stalk ca. 4 mm; ovules 3–6. Legume fusiform, 28–37 × 8–9 mm, glabrous. Seeds 2 or 3, dark brown, oblate, ca. 5 mm in diam. Fl. Jun–Aug, fr. Aug–Sep.

• Thickets, scrub, valleys; 600–3300 m. Hubei, Hunan, Shaanxi, Sichuan, Xizang, Yunnan.

*Lathyrus sargentianus* and *Vicia hupehensis* are here treated as synonyms of *V. chinensis*. They were treated as synonyms of *L. dielsianus* in Fl. Xizang. (2: 765–766. 1985), where the plant described and illustrated is in fact *V. chinensis*.

**17. *Vicia kioshanica*** L. H. Bailey, Gentes Herb. 1: 32. 1920.

确山野豌豆 *que shan ye wan dou*

*Ervum kioshanicum* (L. H. Bailey) Stankevicz.

Herbs perennial, 20–80 cm tall. Stem much branched. Leaves paripinnate, 5–9 cm; stipules semihastate, bifid, margin toothed; leaflets 3–7-paired, abaxially brownish, narrowly elliptic-oblong, 12–40 × 5–13 mm, leathery, adaxially densely villous or both surfaces glabrous, apex rounded or acuminate, mucronate; lateral veins densely 10–13-paired; tendril unbranched or branched. Raceme curved, to 20 cm, obviously longer than leaf, sparsely 6–16(–20)-flowered. Calyx campanulate, unequally toothed, very sparsely pilose; teeth narrowly oblong, apex acuminate. Corolla purple or purple-red, 7–8(–14) mm, strongly bent upward at middle forming a 90° angle; standard 10–11 × ca. 6 mm, longer than wings; wings longer than keel. Ovary stalked, linear; ovules 3 or 4. Legume dark brown or reddish brown, rhomboid or oblong, 20–25 mm, glabrous. Seeds 1–4, black, oblong-cuboid, 4–5 mm. Fl. Apr–Jun, fr. Jun–Sep.

• Hill slopes, valleys, wet grasslands, farms, field margins, roadsides, stone walls; 100–1000 m. Anhui, Gansu, Hebei, Henan, Hubei, Jiangsu, Shaanxi, Shandong, Shanxi, Zhejiang.

**18. *Vicia sinogigantea*** B. J. Bao & Turland, *nom. nov.*

大野豌豆 *da ye wan dou*

Replaced synonym: *Vicia gigantea* Bunge, Enum. Pl. China Bor. 19. 1833, not *Vicia gigantea* Hooker, Fl. Bor.-Amer. 1: 157. 1831; *Ervum giganteum* Stankevicz.

Herbs perennial, 40–100 cm tall. Stem much branched, persistently white pilose. Leaves paripinnate; stipules bifid; leaflets 3–6-paired, elliptic or obovate-elliptic, 15–30(–35) × 6–17(–20) mm, both surfaces persistently white pilose, apex obtuse, mucronate; lateral veins 7- or 8-paired; tendril 2- or 3-branched, or unbranched. Raceme longer than leaf; sparsely 6–16-flowered. Calyx campanulate, 2–2.5 mm, hairy. Corolla white, pink, or purple; standard obovate, ca. 7 mm, subequaling wings and longer than keel, apex retuse. Ovary long stalked, glabrous; ovules 2 or 3. Legume oblong or rhomboid, 10–20 × 4–5.5 mm, both ends acute. Seeds 2 or 3, reniform. Fl. Jun–Aug, fr. Jul–Oct.

• Forests, scrub, hedges, grasslands, slopes, stony land; 600–3000 m. Gansu, Guizhou, Hebei, Henan, Hubei, Nei Mongol, Shaanxi, Shanxi, Sichuan, Yunnan.

*Vicia ramosissima* Franchet (J. Bot. (Morot) 4: 305. 1890), described from Beijing (Baihua Shan), was said in the protologue to be close to Bunge's *V. gigantea*. If the two entities proved to be conspecific, then *V. ramosissima* would be the earliest legitimate (and correct) name for the species. However, the present authors have not examined the type of Franchet's name and therefore cannot confirm its identity.

**19. *Vicia taipaica*** K. T. Fu, Fl. Tsinling. 1(3): 448. 1981.

太白野豌豆 *tai bai ye wan dou*

Herbs perennial, 60–100 cm tall, glabrous. Stem thick. Leaves paripinnate, 7–16 cm; stipules 5–9 mm, margin entire; leaflets 3–5-paired, elliptic to ovate-oblong, 15–50 × 6–15 mm, papery, apex obtuse, mucronate; lateral veins 8–15-paired; tendril 3- or 4-branched. Raceme longer than leaf, sparsely 5–15-

flowered; rachis slender. Calyx obliquely campanulate, shortly and unequally toothed. Corolla yellow or brown-yellow; standard narrowly obovate-oblong, constricted at middle, ca. 13 mm, apex retuse; wings and keel ca. 1 cm. Ovary long stalked; ovules 6 or 7. Legume oblong-rhomboid, 20–30 × ca. 5 mm. Seeds 2–5, oblong. Fl. and fr. Jul–Oct.

- Forests, hill slopes, valleys; 1100–2000 m. Shaanxi.

**20. *Vicia dichroantha*** Diels, Notes Roy. Bot. Gard. Edinburgh 5: 246. 1912.

二色野豌豆 *er se ye wan dou*

*Vicia mairei* H. Léveillé; *V. tenera* Wallich ex Bentham var. *yunnanensis* Franchet.

Herbs perennial, 60–300 cm tall, densely brownish villous on youngest growth (stems, leaves, and raceme before expansion). Stem erect, climbing, pilose. Leaves paripinnate, 8–12 cm; stipules fan-shaped or lanceolate, margin 2- or 3-toothed; leaflets 4–6-paired, linear to linear-lanceolate, 25–50 × 6–9 mm, papery, apex rounded or obtuse, mucronate; lateral veins 7- or 8-paired; petiolules densely hairy; tendrils present. Raceme 6–16 cm, obviously longer than leaf, 20–25-flowered; rachis strong and straight. Calyx obliquely campanulate, hairy. Corolla yellow, dark yellow, or dull orange, marked purple at apex of standard, or at first pale greenish cream with violet veins on inner surface of standard; standard oblong, 7–12 × ca. 5 mm, subequaling wings and slightly longer than keel. Ovary stalked; ovules 4–6. Legume stalked, falcate, 35–40 × 7–9 mm. Seeds 2–4, oblate-spheroid. Fl. and fr. May–Sep.

- Forests, thickets, scrub, grassy slopes, grasslands, limestone gullies, riverbanks, wastelands at roadsides; 1600–3600 m. Sichuan, Yunnan.

**21. *Vicia ternata*** Z. D. Xia, Acta Phytotax. Sin. 34: 425. 1996.

三尖野豌豆 *san jian ye wan dou*

Herbs perennial, 60–80 cm tall, hairy. Stem few branched. Leaves paripinnate, 7–11 cm; stipules hastate, bifid in distal part, margin 3- or 4-toothed; leaflets 3–7-paired, oblong to elliptic, 13–23 × 8–10 mm, both surfaces hairy when young, apex truncate, 3- or 4-toothed, and mucronate; lateral veins dense but not obvious; tendrils 2- or 3-branched. Raceme obviously longer than leaf, 15–20-flowered. Calyx obliquely campanulate, 5–7 mm, unequally toothed, villous. Corolla blue; standard oblong, 10–12 × 5–6 mm, subequaling wings and longer than keel. Ovary shortly stalked, linear, ca. 5 mm; ovules ca. 6. Legume brown, linear, 20–25 × ca. 6 mm, subleathery. Seeds 2 or 3, terete. Fl. May–Jun, fr. Jul–Aug.

- Forests, bush woods, among shrubs, hill slopes, grasslands; 2200–3000 m. Sichuan, Yunnan.

“*Vicia nummularia* var. *macrophylla*” (P. C. Li in W. T. Wang et al., Vasc. Pl. Hengduan Mts. 1: 1001. 1993) belongs here according to X. Y. Zhu et al. (Legumes China, 224. 2007) but was not validly published because no Latin description or diagnosis was provided and no type was indicated (*Vienna Code*, Art. 36.1 and 37.1).

**22. *Vicia wushanica*** Z. D. Xia, Acta Phytotax. Sin. 34: 430. 1996.

五山野豌豆 *wu shan ye wan dou*

Herbs perennial, 60–70 cm tall. Stem erect or climbing, few branched. Leaves paripinnate, to 15 cm; stipules hastate or lanceolate, 3–5 × 2–5 mm, margin unequally toothed; leaflets 6–10-paired, oblong-lanceolate, 17–27 × 5–8 mm, puberulent, apex acuminate, mucronate; lateral veins not obvious; tendrils branched. Raceme branched from base, 3–4.5 cm, obviously shorter than leaf, 6–10-flowered. Flowers 15–17 mm. Calyx subcampanulate, unequally toothed, hairy. Corolla white with fine purple-blue veins; standard oblong, shortly clawed, ca. 13 × 6 mm, subequaling auriculate wings and longer than keel. Ovary stalked, linear, ca. 5 mm; ovules ca. 5. Legume unknown. Fl. May.

- Hill slopes; ca. 1600 m. S Gansu (Wushan).

**23. *Vicia nummularia*** Handel-Mazzetti, Symb. Sin. 7: 577. 1933.

西南野豌豆 *xi nan ye wan dou*

Herbs perennial, 15–50(–100) cm tall, pilose. Stem much branched. Leaves paripinnate, 3.5–8 cm; stipules semihastate, margin 2–4-toothed; leaflets 2–7-paired, elliptic, 4–13(–20) × 2–6 mm, abaxially densely hairy, adaxially sparsely papilliferous, apex obtuse or truncate, mucronate; lateral veins 7–12-paired, not obvious; tendrils branched, slender. Raceme 2–4 cm, shorter than or subequaling leaf, 6–9(–12)-flowered. Calyx campanulate. Corolla yellow; standard ca. 9 mm, subequaling wings and keel, apex retuse. Ovary shortly stalked, linear, glabrous; ovules 2–6. Legume oblong-rhomboid, 20–25 × 4–7 mm, both ends acute. Seeds 2–4. Fl. Jun–Sep, fr. Jul–Oct.

- Forests, *Pinus*-forested steppes on schistose clay, thickets, grassland slopes, sandy riverbanks; 1400–3700 m. Gansu, N and SW Sichuan, Xizang, NW Yunnan.

**24. *Vicia costata*** Ledebour, Icon. Pl. 2: 7. 1830.

新疆野豌豆 *xin jiang ye wan dou*

*Ervum costatum* (Ledebour) Trautvetter; *Vicia sinkiangensis* H. W. Kung.

Herbs perennial, 20–80 cm tall. Stem suberect, climbing, much branched, puberulent or glabrescent. Leaves paripinnate; stipules semihastate, both surfaces with raised veins; leaflets 3–8-paired, oblong-lanceolate or elliptic, 6–18(–35) × 1–5 mm, abaxially pilose, adaxially glabrous, apex obtuse or acute, mucronate; lateral veins obvious; tendrils present. Raceme obviously longer than leaf, 3–11-flowered. Calyx campanulate, unequally toothed, pilose or glabrescent. Corolla yellow, light yellow, or white; standard obovate, constricted at middle, subequaling wings and longer than keel, apex retuse. Ovary linear; ovules 1–5. Legume linear, 26–35 × 5–8 mm. Seeds 1–4. Fl. and fr. Jun–Aug.  $2n = 12$ .

Hill slopes, gravels, sandy land, deserts; 500–3700 m. Heilongjiang, Jilin, Liaoning, Nei Mongol, Xinjiang, Xizang [Kazakhstan, Mongolia, Russia (Altai, Tuva)].

**25. *Vicia kulingana*** L. H. Bailey, Gentes Herb. 1: 33. 1920.

牯岭野豌豆 *gu ling ye wan dou*

Herbs perennial, 50–90 cm tall. Stem erect. Leaves paripinnate, 2–3.5 cm; stipules semihastate or lanceolate, 8–13 × 3–5 mm, margin toothed; leaflets 2- or 3(–5)-paired, lanceolate to



narrowly elliptic, 40–85 × 15–35 mm, both surfaces puberulent, apex often acuminate, mucronate; lateral veins 5–8-paired, extending to margin; tendril absent, replaced by a mucro. Raceme unbranched, 2–5 cm, subequaling or longer than leaf, 5–18-flowered; pedicels ca. 1.5 mm; bracts persistent at base of pedicels. Flowers ca. 15 mm. Calyx obliquely campanulate. Corolla purple-red, purple, or blue; standard violin-shaped or sub-oblong, subequaling wings and longer than keel. Ovary long stalked, linear; ovules ca. 5. Legume oblong, 40–50 × 7–8 mm, both ends acuminate. Seeds 1–4. Fl. Apr–Aug, fr. Jun–Sep.  $2n = 14^*$ .

• Bamboo thickets, valleys, grassy places, damp banks, wet places, sandy land; 200–1200 m. Henan, Hunan, Jiangxi, ?Liaoning, Shandong, Zhejiang.

The inclusion of Liaoning in the distribution is based on a specimen from “Ts’ien-shan: Fengtien,” which may refer to Fengtian, an old name for Liaoning province or a prefecture that included Shenyang city.

“*Vicia edentata*” (W. T. Wang & Tang, Ill. Treatm. Princ. Pl. China (Leguminosae), 607. 1955) belongs here but was not validly published because no Latin description or diagnosis was provided (*Vienna Code*, Art. 36.1).

*Vicia fauriei* Franchet (Bull. Soc. Philom. Paris, sér. 7, 10: 139. 1886, “*fauriae*”; *Orobis fauriei* (Franchet) Stankevitz; *V. venosa* (Willdenow ex Link) Maximowicz var. *fauriei* (Franchet) Okuyama), described from N Japan, somewhat resembles *V. kulingana* in having leaflets 2- or 3-paired and bracts persistent at the base of the pedicels.

**26. *Vicia deflexa*** Nakai, Bot. Mag. (Tokyo) 37: 12. 1923.

弯折巢菜 wan zhe chao cai

Herbs perennial, 30–100 cm tall. Stem erect, zigzagged. Leaves paripinnate, 3–7.5 cm; stipules triangular or lanceolate, 3–6 × 1–3 mm; leaflets 3- or 4-paired, narrowly oblong to oblong-lanceolate, 30–65 × 11–20 mm, margin repand; lateral veins obvious; tendril absent, replaced by a mucro. Raceme unbranched, 2–7 cm, subequaling leaf, 7–10-flowered; bracts absent or caducous; pedicels ca. 2 mm. Flowers 15–20 mm. Calyx subcampanulate, very shortly toothed. Corolla dark purple-red or light purple; standard oblong, ca. 15 mm, subequaling wings and keel. Ovary linear, ca. 6 mm. Legume oblong-rhomboid, 25–40 × ca. 6 mm, leathery. Seeds 2–6. Fl. Jun–Oct.

Forests, bamboo thickets, valleys, riverbanks, along streams; 200–1400 m. Anhui, Hubei, Hunan, Jiangsu, Zhejiang [Japan].

*Vicia deflexa* may be better treated within *V. venosa*, as was done by H. Ohashi and Y. Endo (in Iwatsuki et al., Fl. Japan IIb: 229. 2001).

**27. *Vicia chianschanensis*** (P. Y. Fu & Y. A. Chen) Z. D. Xia, Acta Phytotax. Sin. 34: 431. 1996 [“*chianshanensis*”].

千山野豌豆 qian shan ye wan dou

*Vicia ramuliflora* (Maximowicz) Ohwi f. *chianschanensis* P. Y. Fu & Y. A. Chen, Fl. Pl. Herb. Chin. Bor.-Orient. 5: 177. 1976.

Herbs perennial, 40–60 cm tall. Stem erect, straight, unbranched or few branched, slightly hairy. Leaves paripinnate, 4–5 cm; stipules obliquely ovate, 12–15 × 6–8 mm, margin entire; leaflets 2-paired, ovate, 20–40 × 18–20 mm, glabrous,

apex acute, mucronate; lateral veins 8–10-paired, obvious; tendril absent, replaced by a mucro. Raceme unbranched, slightly longer than leaf, densely 6–12-flowered; bracts absent or caducous; pedicel ca. 4 mm, hairy. Calyx cylindrical, 10–12 mm. Standard ovate-oblong, slightly constricted at middle, subequaling wings and longer than keel. Ovary stalked, linear; ovules 5 or 6. Legume unknown. Fl. May–Jul.

• Mixed forests, hill slopes, roadsides. Liaoning, Shandong.

This species is provisionally maintained here. Further study is needed to ascertain its appropriate position and rank.

**28. *Vicia venosa*** (Willdenow ex Link) Maximowicz, Bull. Acad. Imp. Sci. Saint-Petersbourg 18: 395. 1873.

柳叶野豌豆 liu ye ye wan dou

*Orobis venosus* Willdenow ex Link, Enum. Hort. Berol. Alt. 2: 236. 1822; *O. venosus* var. *willdenowianus* Turczaninow; *Vicia venosa* var. *willdenowiana* (Turczaninow) Maximowicz.

Herbs perennial, 40–80 cm tall. Stem erect, pilose at first, later glabrescent. Leaves paripinnate; stipules semihastate, 10–15 × 3–5 mm, margin toothed, apex long acuminate; leaflets 2–6-paired, linear to narrowly lanceolate, those on upper part of stem often broader (sometimes to lanceolate) than those on lower part, 40–65(–90) × 3–13(–25) mm, abaxially slightly hairy, apex acuminate or long caudate, mucronate; tendril absent, replaced by a mucro. Raceme 2- or 3-branched, 3–7 cm, subequaling or longer than leaf, 4–9-flowered. Calyx campanulate. Corolla red, purple-red or blue; standard obovate-oblong, ca. 13 mm, longer than wings and keel, apex retuse. Ovary glabrous; ovules 5 or 6. Legume oblong, flat, 25–33 mm, both ends acuminate. Seeds 3–6. Fl. Jun–Sep, fr. Jul–Sep.  $2n = 12, 24$ .

Mixed forests, grasslands on hill slopes, meadows; 600–1800 m. Hebei, Heilongjiang, Jilin, Nei Mongol [Japan, Korea, Mongolia, Russia (Far East, E Siberia)].

**29. *Vicia ramuliflora*** (Maximowicz) Ohwi, J. Jap. Bot. 12: 331. 1936.

北野豌豆 bei ye wan dou

*Orobis ramuliflorus* Maximowicz, Prim. Fl. Amur. 83. 1859; ?*O. baicalensis* (Turczaninow ex Maximowicz) Stankevitz & Roskov; *O. venosus* Willdenow ex Link var. *albiflorus* Turczaninow; ?*O. venosus* var. *baicalensis* Turczaninow ex Maximowicz; ?*O. venosus* var. *latifolius* Turczaninow; *O. venosus* var. *ramuliflorus* (Maximowicz) Stankevitz; ?*Vicia baicalensis* (Turczaninow ex Maximowicz) B. Fedtschenko; *V. ramuliflora* f. *abbreviata* P. Y. Fu & Y. A. Chen; ?*V. ramuliflora* f. *baicalensis* (Turczaninow ex Maximowicz) P. Y. Fu & Y. A. Chen; *V. venosa* (Willdenow ex Link) Maximowicz var. *albiflora* (Turczaninow) Turczaninow; ?*V. venosa* var. *baicalensis* (Turczaninow ex Maximowicz) Turczaninow; ?*V. venosa* var. *latifolia* (Turczaninow) Turczaninow.

Herbs perennial, 40–100 cm tall. Stem puberulent or glabrescent. Leaves paripinnate, 5–8 cm; stipules semihastate, obliquely ovate, or oblong, 8–12(–16) × 10–13 mm, margin

entire or toothed at base; leaflets (2 or)3(or 4)-paired, lanceolate or ovate-lanceolate, 25–80 × 10–30 mm, abaxially hairy along midrib, apex acuminate or long caudate; tendril absent, replaced by a mucro. Raceme usually 2- or 3-branched, 4–5 cm, shorter than leaf (rarely caespitose or capitate on a much-reduced peduncle), sparsely 4–9-flowered. Calyx obliquely campanulate. Corolla blue, blue-purple, or purple-red, rarely white; standard oblong or long obovate, constricted at middle, 11–14(–18) mm, subequaling wings and keel, apex retuse. Ovary shortly stalked, linear; ovules 5 or 6. Legume oblong-rhomboid, 25–50 × 5–7 mm, both ends acuminate. Seeds 1–4, elliptic. Fl. and fr. Jun–Sep.  $2n = 12, 14$ .

Forests, forest margins, bush woods, among shrubs, hill slopes, grasslands, meadows, along rivers, weed communities; 200–1600 m. Anhui, Beijing, Heilongjiang, Jilin, Liaoning, Nei Mongol, Shandong [Japan, Korea, Mongolia, Russia (Far East, E Siberia)].

**30. *Vicia unijuga*** A. Braun in A. Braun et al., Index Sem. Hort. Berol. 1853: 22. 1853.

歪头菜 wai tou cai

*Orobis lathyroides* Linnaeus, Sp. Pl. 2: 728. 1753, not *Vicia lathyroides* Linnaeus (1753); *Ervum unijugum* (A. Braun) Alefeld; *Lathyrus messerschmidii* Franchet & Savatier; *Vicia unijuga* f. *albiflora* Nakai; *V. unijuga* var. *angustifolia* Nakai; *V. unijuga* var. *breviramea* Nakai; *V. unijuga* var. *ciliata* H. Léveillé; *V. unijuga* var. *integristipula* H. Léveillé; *V. unijuga* var. *kaussanensis* H. Léveillé; *V. unijuga* var. *lobata* Seok & B. H. Choi; *V. unijuga* subsp. *minor* (Nakai) Y. N. Lee; *V. unijuga* f. *minor* Nakai; *V. unijuga* var. *ouensanensis* H. Léveillé.

Herbs perennial, (15–)40–100(–180) cm tall. Stem shrubby, pilose when young. Leaves paripinnate; stipules hastate or sub lanceolate, 8–20 × 3–5 mm, margin unequally toothed; leaflets 1-paired, ovate to lanceolate or rhombic-elliptic, (15–)30–90(–115) × (6–)15–40(–50) mm, both surfaces pilose, apex sometimes acuminate; tendril rarely present, usually replaced by a mucro. Raceme rarely branched, ± cylindric, 4.5–7 cm, usually obviously longer than leaf, densely 8–20-flowered. Calyx campanulate or obliquely so, glabrescent. Corolla deep or light blue to purple to red, rarely white; standard violin-shaped, constricted at middle, 11–15 mm; wings 13–14 mm, longer than keel. Ovary linear, glabrous; ovules 2–8. Legume oblong, flat, 20–35 × 5–7 mm, glabrous, apex beaked. Seeds 3–7, oblate-spheroid. Fl. Feb (in S Yunnan), Jun–Sep, fr. Jul–Oct.  $2n = 12, 14, 24$ .

Forests, forest margins, thickets, scrub, hedges, mountain and hill slopes and summits, damp valleys, pastures, grassy places, river and stream banks, ravines, rocky places on slopes, roadside banks, field margins; below 4000 m. Anhui, Gansu, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jiangxi, Jilin, Liaoning, Nei Mongol, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xizang, Yunnan, Zhejiang [Japan, Korea, Mongolia, Russia (Far East, Siberia)].

*Vicia unijuga* may be the commonest species of *Vicia* in China, or at least it is the most often collected. The morphological variation is considerable. Several specimens from Hubei are distinctive in having leaflets lanceolate, large (55–115 × 25–45 mm), with a long-acuminate apex (A. Henry 6596, BM!, E!, K!; E. H. Wilson 1230, K!; E. H. Wilson 2036, E!; E. H. Wilson 3486, BM!, E!, K!; and *Silvestri* 1185, K!). A specimen apparently from the Beijing area (“Fl. Pekinensis,” *Bret-*

*schneider* 209, K!) is similar, as is one from S Korea (*Chung In-Cho's collector* 9555, E!). Two specimens from Shandong (*German name* 218, K!; E. Faber 245, K!) have leaflets narrowly elliptic and unusually narrow (30–50 × 6–12 mm). A specimen from S Yunnan (*J. F. Rock* 2548, K!) has leaves approaching this narrowness.

*Vicia unijuga* var. *trifoliolata* Z. D. Xia (Acta Phytotax. Sin. 34: 433. 1996; *V. unijuga* f. *trifoliolata* (Z. D. Xia) Y. Endo & H. Ohashi), described from Shaanxi, Shanxi, and Sichuan, was diagnosed in the protologue as “A typo foliolis 3 cirrho 4–5 cm longo, floribus minoribus laxioribusque differt” (differs from the type [by having] leaflets 3 with tendril 4–5 cm long, with flowers smaller and laxer). Further study is needed to ascertain its status.

“*Vicia unijuga* var. *waldeniana*” (S. Y. Hu in B. M. Walden & S. Y. Hu, Wild Fl. Yunnan Centr. China, 131. 2000) belongs here but was not validly published because no type was indicated (*Vienna Code*, Art. 37.1).

**31. *Vicia ohwiana*** Hosokawa, J. Soc. Trop. Agric. 5: 288. 1933.

头序歪头菜 tou xu wai tou cai

*Orobis ohwianus* (Hosokawa) Stankevitz & Roskov; *Vicia unijuga* A. Braun var. *apoda* Maximowicz; *V. unijuga* var. *ohwiana* (Hosokawa) Nakai.

Herbs perennial, ca. 70 cm tall. Stem erect, unbranched or few branched, puberulent. Leaves subsessile, paripinnate; stipules ovate-lanceolate, margin entire; leaflets 1-paired, broadly ovate to subrhomboid, 40–70(–100) × 35–50(–170) mm, glabrous or pilose at margin and along veins, apex acute; tendril absent, replaced by a mucro. Raceme abbreviated to capitate, shorter than leaf, densely flowered. Calyx campanulate, 8–10 mm, villous. Corolla purple, rarely white; standard oblong-obovate, 10–14 mm, equaling wings and longer than keel. Legume obliquely oblong, 25–30 × ca. 5 mm, glabrous, apex beaked. Fl. and fr. Jul–Sep.  $2n = 12, 24$ .

Forests, forest margins, bush woods, among shrubs, hill slopes, sunny slopes, grasslands, meadows; below 4000 m. Hebei, Heilongjiang, Henan, Jilin, Liaoning, Shaanxi, Shandong, Shanxi [Japan, Korea, Russia (Far East, Siberia)].

**32. *Vicia geminiflora*** Trautvetter, Trudy Imp. S.-Peterburgsk. Bot. Sada 3(1): 42. 1875.

索伦野豌豆 suo lun ye wan dou

Herbs perennial, 25–50 cm tall. Stem slender, hairy when young. Leaves paripinnate; stipules linear-lanceolate; leaflets 2–5-paired, linear, 25–30 × 2–3 mm, apex mucronate; lateral veins not obvious; tendril unbranched. Raceme longer than leaf, 2- or 3(or 4)-flowered; rachis 7–8 cm. Calyx campanulate. Corolla blue-purple or purple, 16–26 mm; standard obovate-oblong, longer than wings and keel, apex retuse. Ovary long stalked; ovules many. Legume not seen. Fl. Jun–Jul.  $2n = 14$ .

Grasslands on riverbanks. Heilongjiang, Jilin, Liaoning, Nei Mongol [Mongolia, Russia (E Siberia)].

**33. *Vicia tetrantha*** H. W. Kung, Contr. Inst. Bot. Natl. Acad. Peiping 3: 391. 1935.

四花野豌豆 si hua ye wan dou

*Vicia multijuga* Z. D. Xia (1996), not (Boissier) K. H. Rechinger (1951).

Herbs perennial, 60–120 cm tall. Stem slender, glabrous or pilose. Leaves paripinnate, 5–11 cm; stipules hastate to lanceolate or elliptic, 3–7 × 1–5 mm; leaflets 8–11-paired, narrowly oblong or narrowly lanceolate, 12–27 × 3–6 mm, glabrous or hairy, apex acuminate, mucronate; tendril unbranched or branched. Raceme shorter than leaf, 2–7-flowered; bracts caducous; pedicels hispidulous. Calyx campanulate or subcampanulate, 4.5–6 mm, sometimes tomentose. Corolla blue-purple or purple; standard violin-shaped or oblong, 10–12 × ca. 5 mm, subequaling wings and longer than keel. Ovary stalked, fusiform, glabrous; ovules ca. 6. Legume oblong, ca. 23 × 6 mm, glabrous. Seeds 1–5, spheroid. Fl. Jun–Sep, fr. Aug–Sep.

• Hill slopes, hill grasslands, roadsides; 1000–2500 m. Gansu, Hubei, Shaanxi.

Plants with pilose stem and long (15–27 mm), hairy leaflets have been called *Vicia multijuga* Z. D. Xia, which is a later homonym and therefore illegitimate.

**34. *Vicia bungei*** Ohwi, J. Jap. Bot. 12: 330. 1936.

大花野豌豆 da hua ye wan dou

*Vicia tridentata* Bunge, Enum. Pl. China Bor. 19. 1833, not Gaterau (1789), nor Schweinitz (1824); *V. americana* Muhlberg ex Willdenow var. *bungei* (Ohwi) Stankevicz; *V. americana* var. *sinensis* C. R. Gunn.

Herbs annual or short-lived perennial, 15–50 cm tall. Stem climbing or trailing, much branched, glabrescent. Leaves paripinnate; stipules semihastate, 3–7 mm, margin toothed; leaflets 3–5-paired, linear-oblong, oblong, or narrowly oblong-oblancoleate to oblong-obovate, 10–25 × 2–8 mm, abaxially pilose, apex usually emarginate and mucronate, thereby often appearing 3-toothed, sometimes truncate or rounded, rarely distal margin also toothed; tendril branched. Raceme subequaling or longer than leaf, 2–4(or 5)-flowered. Calyx campanulate, pilose. Corolla red-purple, blue-purple, or pale violet, sometimes white on keel; standard obovate-lanceolate, longer than wings. Ovary long stalked, sericeous along sutures. Legume oblong, 25–35 mm, glabrous. Seeds 2–8, spheroid. Fl. Apr–Jul, fr. May–Aug.  $2n = 24, 26, 42$ .

Forests, mountain and hill slopes, valleys, grasslands, meadows, banks above lakes, streamsides, steep rocky sides of river gorges, walls, fields and field margins, wastelands, roadsides, sandy and rocky seashores; sea level to 4200 m. Anhui, Gansu, Hebei, Henan, Jiangsu, Liaoning, Nei Mongol, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Xizang, Yunnan [Korea].

**35. *Vicia tetrasperma*** (Linnaeus) Schreber, Spic. Fl. Lips. 26. 1771.

四籽野豌豆 si zi ye wan dou

*Ervum tetraspermum* Linnaeus, Sp. Pl. 2: 738. 1753.

Herbs annual, 20–60 cm tall. Stem climbing, much branched, slender, puberulent. Leaves paripinnate, 2–4 cm; stipules sagittate or semitriangular, 2–3 mm; leaflets 2–6-paired, oblong or linear, 6–7 × ca. 3 mm; tendril present. Raceme ca. 3 cm, 1- or 2-flowered. Calyx obliquely campanulate. Corolla pale blue, pale violet, pale rose, or white, 4–8 mm; standard oblong-obovate; wings subequaling keel. Ovary stalked, oblong,

3–4 mm; ovules 4. Legume oblong, 8–12 × 2–4 mm, glabrous. Seeds 4, oblate-spheroid. Fl. Feb–Aug, fr. Mar–Aug.  $2n = 14$ .

Hill slopes, valleys, grasslands, fields, cultivated areas, open ground, wastelands, roadsides; near sea level to 2900 m. Anhui, Fujian, Gansu, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Sichuan, Taiwan, Xinjiang, Yunnan, Zhejiang [Afghanistan, Bhutan, N India, Japan, Kazakhstan, Korea, Kyrgyzstan, N Pakistan, Russia, Tajikistan, Uzbekistan; N Africa, C and SW Asia, N Atlantic islands, Europe; widely introduced and naturalized elsewhere].

**36. *Vicia hirsuta*** (Linnaeus) Gray, Nat. Arr. Brit. Pl. 2: 614. 1821.

小巢菜 xiao chao cai

*Ervum hirsutum* Linnaeus, Sp. Pl. 2: 738. 1753; *Vicia coreana* H. Léveillé; *V. hirsuta* var. *hefeiiana* J. Q. He; *V. taquetii* H. Léveillé; *Vicioides hirsuta* (Linnaeus) Moench.

Herbs annual, 15–90(–120) cm tall. Stem climbing, slender, glabrescent. Leaves paripinnate; stipules semisagittate or lanceolate, margin 2- or 3-toothed at base; leaflets 4–8-paired, linear or narrowly oblong, 5–15 × 1–3 mm, glabrous; tendril branched. Raceme obviously shorter than leaf, densely 2–4(–7)-flowered at apex of rachis. Calyx campanulate. Corolla white to light purple, rarely pink, 2–4(–5) mm; standard elliptic, subequaling wings and longer than keel. Ovary sessile, densely rigidly hairy; ovules 2. Legume oblong-rhomboid, 5–10 × 2–5 mm, hirsute. Seeds 2, oblate-spheroid. Fl. Feb–Jun, fr. Feb–Aug.  $2n = 12, 14$ .

Valleys, grassy slopes, grasslands, creek banks, along streams, farms, fields and field margins, villages, gardens, cultivated areas, roadsides; sea level to 2900 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Jiangsu, Qinghai, Shaanxi, Sichuan, Taiwan, Xinjiang, Yunnan, Zhejiang [Afghanistan, Bhutan, N India, Japan, Korea, Nepal, N Pakistan, Russia, Turkmenistan; Africa, C and SW Asia, N Atlantic islands, Europe; introduced and naturalized elsewhere].

“*Ervum filiforme*” (Wallich, Numer. List, no. 5955. 1831) belongs here but is a nomen nudum and was therefore not validly published.

**37. *Vicia sepium*** Linnaeus, Sp. Pl. 2: 737. 1753.

野豌豆 ye wan dou

*Vicioides sepium* (Linnaeus) Moench.

Herbs perennial, 30–100 cm tall. Stem erect or climbing, slender, pilose. Leaves paripinnate, 7–12 cm; stipules semihastate, margin 2–4-toothed; leaflets 5–7-paired, oblong-ovate or oblong-lanceolate, 6–30 × 4–13 mm, pilose, apex obtuse or truncate, mucronate; tendril branched. Flowers 2–4(–6) in axillary fascicles. Calyx campanulate. Corolla pale violet-purple, red, or nearly purple to pink, 10–15 mm; standard nearly violin-shaped; wings shorter than standard; keel curved inward. Ovary shortly stalked, linear, glabrous; ovules ca. 5. Legume broadly oblong to subrhomboid, slightly curved, 20–40 × 5–7 mm, apex beaked. Seeds 5–7, oblate-spheroid. Fl. Mar–Jun, fr. Mar–Aug.  $2n = 12, 14$ .

Forest margins, hedges, hillocks, hill slopes, grasslands, fields, roadsides; 1000–2200 m. Gansu, Guizhou, Shaanxi, Sichuan, Xinjiang, Yunnan [Japan, Kashmir, Kazakhstan, Korea, Kyrgyzstan, Mongolia, Russia, Tajikistan; SW Asia (Caucasus, E Turkey), Europe; introduced and naturalized in temperate regions elsewhere].

**38. *Vicia pannonica*** Crantz, Stirp. Austr. Fasc., ed. 2, 2: 393. 1769.

褐毛野豌豆 he mao ye wan dou

Herbs annual, 20–60(–100) cm tall, densely yellow to brown villous. Stem 2–4-branched from base, erect. Leaves paripinnate; stipules ovate-lanceolate or semihastate, small; leaflets 6–9-paired, linear or oblong-linear, 10–15 × 2–3 mm, apex mucronate; lateral veins not obvious; tendril 2- or 3-branched. Flowers 1–3 in axillary fascicles. Calyx obliquely campanulate, ca. 11 mm, densely yellow villous. Corolla white or yellow-white; standard 15–16 mm, equaling wings and longer than keel, abaxially villous. Ovary shortly stalked, villous. Legume broadly oblong to subrhomboid, 20–35 × 7–11 mm, densely brown villous, apex beaked. Seeds 2–8, suboblate-spheroid. Fl. and fr. Jul–Sep.  $2n = 12$ .

Cultivated. Almost throughout China [native to SW Asia and Europe; introduced and naturalized elsewhere].

The Chinese plants correspond to *Vicia pannonica* subsp. *pannonica*, characterized by a white or yellow-white corolla, with limb of standard shorter than claw, and black seeds. *Vicia pannonica* subsp. *striata* (M. Bieberstein) Nyman has a dirty purple corolla, with limb of standard subequaling claw, and black seeds marbled with brown.

**39. *Vicia sativa*** Linnaeus, Sp. Pl. 2: 736. 1753.

救荒野豌豆 jiu huang ye wan dou

Herbs annual, 15–100 cm tall. Stem unbranched to much branched, decumbent or climbing, puberulent or pilose. Leaves paripinnate, 2–10 cm; stipules hastate, semisagittate, or lanceolate, ca. 1.5 mm, 2–5-toothed, puberulent; leaflets 2–7-paired, linear to oblong-cuneate to obcordate, 9–25 × 2–10 mm, hairy, apex acute, obtuse, truncate, or emarginate, mucronate; lateral veins not obvious; tendril 2- or 3-branched. Flowers 1 or 2(–4) in axillary fascicles. Calyx campanulate, hairy; teeth shorter than to longer than tube. Corolla blue-purple or purple to red, (8–)10–30 mm; standard long obovate or obovate, constricted at middle, subequaling or longer than wings; wings longer than keel. Ovary shortly stalked, linear or fusiform, puberulent or hairy; ovules 5–8. Legume black, brownish black, brown, or yellow-brown, linear or linear-oblong, slightly curved, contracted or not contracted between seeds, 25–70 × (2.5–)3–11 mm, pubescent to glabrous, apex beaked. Seeds 4–8, spheroid. Fl. Jan–Aug, fr. Feb–Sep.  $2n = 10, 12, 14$ .

Wild or cultivated and possibly naturalized, forests, hedges, hill slopes, valleys, grasslands, dry pastures, damp grassy places, river and creek banks, river beds, farms, orchards, fields, cultivated land, margins of cultivation, wastelands, roadsides; sea level to 3700 m. Anhui, Chongqing, Fujian, Gansu, Guangdong, Guizhou, Hebei, Heilongjiang, Hubei, Hunan, Jiangsu, Nei Mongol, Sichuan, Taiwan, Xinjiang, Xizang, Yunnan, Zhejiang [Afghanistan, Bhutan, India, Japan, Kazakhstan, Korea, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; Africa, SW Asia, N Atlantic islands, Europe; widely introduced and naturalized elsewhere].

1a. Corolla 18–30 mm; calyx teeth equaling or longer than calyx tube; legume brown or yellow-brown, contracted between seeds,

35–70 × 6–11 mm, usually hairy; leaflets oblong-cuneate to obcordate, apex truncate or emarginate ..... 39a. subsp. *sativa*

1b. Corolla (8–)10–18 mm; calyx teeth shorter than calyx tube; legume black or brownish black, not contracted between seeds, 25–55 × (2.5–)3–6 mm; usually glabrous; leaflets linear to oblong-cuneate, apex acute, obtuse, or truncate ..... 39b. subsp. *nigra*

**39a. *Vicia sativa* subsp. *sativa***

救荒野豌豆(原亚种) jiu huang ye wan dou (yuan ya zhong)

*Vicia sativa* var. *ecirrhosa* J. Q. He.

Leaflets oblong-cuneate to obcordate, apex truncate or emarginate. Calyx: teeth equaling or longer than tube. Corolla 18–30 mm. Legume brown or yellow-brown, contracted between seeds, 35–70 × 6–11 mm, usually hairy. Fl. Jan–Aug, fr. Feb–Sep.  $2n = 10, 12$ .

Cultivated and possibly naturalized, forests, hedges, hill slopes, grasslands, dry pastures, creek banks, farms, orchards, fields, cultivated land, margins of cultivation, wastelands, roadsides; sea level to 3000 m. Anhui, Chongqing, Fujian, Gansu, Guangdong, Guizhou, Hebei, Heilongjiang, Hubei, Jiangsu, Nei Mongol, Sichuan, Taiwan, Xinjiang, Yunnan, Zhejiang [exact native distribution uncertain; widely cultivated and naturalized].

**39b. *Vicia sativa* subsp. *nigra*** Ehrhart, Hannover Mag. 15: 229. 1780.

窄叶野豌豆 zhai ye ye wan dou

*Vicia sativa* var. *angustifolia* Linnaeus, Fl. Suec., ed. 2, 255. 1755; *V. angustifolia* Linnaeus; *V. pilosa* M. Bieberstein; *V. sativa* subsp. *angustifolia* (Linnaeus) Battandier; *V. sativa* var. *nigra* Linnaeus, nom. illeg. superfl.

Leaflets linear to oblong-cuneate, apex acute, obtuse, or truncate. Calyx: teeth shorter than tube. Corolla (8–)10–18 mm. Legume black or brownish black, not contracted between seeds, 25–55 × (2.5–)3–6 mm, usually glabrous. Fl. Mar–Jul, fr. Mar–Sep.  $2n = 10, 12, 14$ .

Damp grassy places, valleys, riverbanks and beds, farms, fields, open wastelands, roadsides; 200–3700 m. Fujian, Guizhou, Hunan, Sichuan, Taiwan, Xinjiang, Xizang [Afghanistan, Bhutan, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan; Africa, SW Asia, Europe; introduced and naturalized in temperate regions elsewhere].

**40. *Vicia faba*** Linnaeus, Sp. Pl. 2: 737. 1753.

蚕豆 can dou

*Faba vulgaris* Moench.

Herbs annual, 30–120 cm tall. Stem erect, thick, glabrous. Leaves paripinnate; stipules hastate or triangular-ovate, 10–25 mm, margin slightly toothed; leaflets 1–5-paired, oblong, elliptic, or obovate, 40–60(–100) × 15–40 mm, glabrous, apex mucronate; tendril absent, replaced by a mucro. Flowers 2–4(–6) in axillary fascicles. Calyx campanulate, unequally toothed. Corolla white with purple veins, 20–35 mm; standard con-

stricted at middle, longer than wings; wings longer than keel. Ovary sessile, linear; ovules 2–4(–6). Legume stout, 50–100 × 20–30 mm, tomentose. Seeds 2–4(–6), oblong, compressed, 8–30 mm. Fl. and fr. Mar–Sep.  $2n = 12, 14$ .

Cultivated; near sea level to 3700 m. Throughout China [widely cultivated elsewhere; of cultivated origin].

The seeds (broad beans, fava beans) are edible.

## 165. LATHYRUS Linnaeus, Sp. Pl. 2: 729. 1753.

山黧豆属 shan li dou shu

Bao Bojian (包伯坚); Gregory Kenicer

Herbs annual or perennial. Stem erect or climbing by means of tendrils, winged or wingless. Leaves paripinnate, with rachis terminating in a branched or simple tendril or a bristle, rarely phyllodic or reduced to modified stipules; stipules sagittate or semisagittate, usually smaller than leaflets, sometimes large and leaflike; leaflets 1- to many paired, elliptic, ovate, ovate-oblong, lanceolate, or linear; veins parallel, pinnate, or reticulate. Inflorescence an axillary, pedunculate, 1- to many flowered raceme. Calyx campanulate, unequally or equally toothed; teeth not leaflike, at least 2 teeth less than  $2 \times$  as long as tube. Corolla purple, pink, yellow, or white, sometimes crimson, brick red, or orange. Staminal tube not oblique at apex; filaments filiform or distally dilated. Style linear or distally dilated, dorsally compressed, pubescent on upper side. Legume laterally compressed, dehiscent. Seeds 2 to many.

About 160 species: mainly in Asia, Europe, and North America, with some South American endemics; 18 species (three endemic, three introduced) in China.

The yellow-flowered species of SE China are a particularly difficult and poorly understood group, represented by only limited gatherings.

- 1a. Leaves without tendril at apex (aristate).
- 2a. Stem slightly winged; leaflets with 3(–5) parallel veins ..... 13. *L. komarovii*
- 2b. Stem wingless; leaflets with reticulate veins.
- 3a. Corolla purple-red; stipules linear or spurlike (subulate) ..... 8. *L. vaniotii*
- 3b. Corolla orange-yellow or yellow; stipules leaflike (more than 3 mm wide).
- 4a. Leaflets ovate or elliptic ..... 6. *L. gmelinii*
- 4b. Leaflets linear to linear-lanceolate ..... 7. *L. krylovii*
- 1b. Leaves with simple or branched tendril at apex.
- 5a. Stem winged (more than 1 mm).
- 6a. Leaves with 1 pair of leaflets; style twisted.
- 7a. Raceme 5–15-flowered ..... 17. *L. latifolius*
- 7b. Raceme 1–3(or 4)-flowered.
- 8a. Leaflets ovate-oblong or elliptic; corolla 20–30 mm; legume wingless ..... 16. *L. odoratus*
- 8b. Leaflets lanceolate to linear; corolla 12–15(–24) mm; legume winged at sutures ..... 15. *L. sativus*
- 6b. Leaves with more than 1 pair of leaflets; style not twisted.
- 9a. Stipules similar to leaflets, 35 mm or longer; leaflets oval to oblong ..... 2. *L. pisiformis*
- 9b. Stipules less than 35 mm; leaflets linear, linear-lanceolate, or elliptic-lanceolate.
- 10a. Leaflets with pinnate or subparallel veins, stipules without reflexed basal spur ..... 11. *L. palustris*
- 10b. Leaflets with 5 prominent parallel veins, stipules with reflexed basal spur ..... 12. *L. quinquerivius*
- 5b. Stem wingless.
- 11a. Leaves with 1 pair of leaflets.
- 12a. Corolla yellow; stipules sagittate ..... 18. *L. pratensis*
- 12b. Corolla purple-red; stipules semisagittate ..... 14. *L. tuberosus*
- 11b. Leaves with more than 1 pair of leaflets.
- 13a. Stipules large, subequaling or equaling leaflets; leaflets ovate to broadly ovate ..... 1. *L. davidii*
- 13b. Stipules obviously smaller than leaflets.
- 14a. Leaflets large, 9–12 cm, ovate-lanceolate, strongly caudate at apex ..... 9. *L. caudatus*
- 14b. Leaflets less than 9 cm, not strongly caudate at apex.
- 15a. Stem procumbent; stipules sagittate ..... 5. *L. japonicus*
- 15b. Stem erect; stipules semisagittate.
- 16a. Longest calyx tooth equaling tube ..... 11. *L. palustris*
- 16b. Longest calyx tooth shorter than tube.
- 17a. Leaflets narrowly elliptic or narrowly ovate; corolla yellow ..... 10. *L. anhuiensis*
- 17b. Leaflets elliptic, ovate, or oblong; corolla pink or purple.
- 18a. Plant 20–30 cm high; raceme 2–5-flowered ..... 3. *L. humilis*
- 18b. Plant 80–100 cm high; raceme 9–11(–13)-flowered ..... 4. *L. dielsianus*

**1. *Lathyrus davidii*** Hance, J. Bot. 9: 130. 1871.

大山黧豆 da shan li dou

Herbs perennial, with tuberous roots, 1–1.8 m tall. Stem strong, erect or decumbent, glabrous, wingless, hollow in lower parts. Leaves with strong, branched tendrils; stipules large, often similar to leaflets, semisagittate, ovate, 40–60 mm, entire or sometimes dentate at base; leaflets (2 or)3- or 4(or 5)-paired, usually ovate, 40–70 × 50–110 mm, glabrous, with reticulate veins, margin entire, apex mucronate. Raceme subequaling leaf, 10–40-flowered. Calyx campanulate, ca. 5 mm, glabrous, shortly toothed. Corolla yellow, maturing to orange, 1.5–2 cm; standard elliptic, with claw; wings subequaling standard, auriculate at base. Ovary linear, glabrous. Legume orange-brown, linear, 8–15 cm. Seeds purple-brown, broadly oblong, smooth. Fl. May–Jul, fr. Aug–Oct.

Forest margins, scrub forests, slopes; below 1800 m. Anhui, Gansu, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jilin, Nei Mongol, Shaanxi, Shandong, Shanxi [Japan, Korea, Russia].

**2. *Lathyrus pisiformis*** Linnaeus, Sp. Pl. 2: 734. 1753.

大托叶山黧豆 da tuo ye shan li dou

Herbs perennial, to 2 m tall. Stem erect, glabrous, winged. Leaves with branched tendril at apex; stipules large, ovate or elliptic, 35–65 mm, glabrous, often with dentate basal lobe; leaflets 3–5-paired, narrowly ovate, ovate-lanceolate, or elliptic-lanceolate, 55–90 × 20–30 mm, glabrous, with subparallel veins. Raceme 8–14-flowered. Calyx campanulate, ca. 12 mm, glabrous, unequally toothed. Corolla red-purple; standard ca. 13 mm, retuse at apex, often with darker venation; wings auriculate at base; keels ca. 12 mm. Ovary linear, glabrous. Legume dark brown, ca. 4.5 × 5.5 mm. Seeds light yellow, obovate-spherical, smooth. Fl. May–Jun, fr. Jul–Aug.

Forests, valleys, riverbanks; 1100–1500 m. Xinjiang [Russia; C and E Europe].

**3. *Lathyrus humilis*** (Seringe) Sprengel, Syst. Veg. 3: 363. 1826.

矮山黧豆 ai shan li dou

*Orobanchium humilis* Seringe in Candolle, Prodr. 2: 378. 1825; *Lathyrus altaicus* Ledebour.

Herbs perennial, 20–30 cm tall. Stem slender, erect, sometimes branching, puberulent, wingless. Leaves paripinnate; tendril weakly branched or simple; stipules foliose, semisagittate, 10–16 mm, dentate; leaflets (2 or)3- or 4-paired, ovate or elliptic, 15–30(–50) × 10–20 mm, glabrous or abaxially puberulent, with reticulate veins. Raceme shorter than leaf, 2–5-flowered. Calyx campanulate; longest tooth ca. 1/2 length of tube. Corolla purple-red, 1.5–2 cm; standard orbicular, with claw; wings and keels auriculate at base. Ovary linear, glabrous. Legume linear, 4.3–5 cm. Seeds red-brown, elliptic, smooth. Fl. May–Jul, fr. Aug–Sep.

Forest margins, scrub forests, hill grasslands; below 2500 m. Gansu, Hebei, Heilongjiang, Jilin, Liaoning, Nei Mongol, Shanxi, Xinjiang [Korea, Mongolia, Russia].

**4. *Lathyrus dielsianus*** Harms, Bot. Jahrb. Syst. 29: 417. 1900.

中华山黧豆 zhong hua shan li dou

*Lathyrus davidii* Hance var. *roseus* C. W. Chang; *L. wilsonii* Craib.

Herbs perennial, 80–100 cm tall. Stem erect, glabrous, wingless. Leaves with simple or branched tendril; stipules obliquely ovate, toothed, on upper leaves often lanceolate, entire; leaflets (2 or)3- or 4(or 5)-paired, ovate to ovate-lanceolate, 35–55(–65) × 13–20(–35) mm, glabrous, with reticulate veins. Raceme shorter than or subequaling leaf, 9–11(–13)-flowered. Calyx campanulate, 7–8 mm, glabrous, shortly toothed; longest tooth shorter than tube, 1.5–2 mm. Corolla pink or purple, 1.8–1.9 cm; standard orbicular, with claw; wings obovate, auriculate at base. Ovary linear, glabrous. Legume brown, linear, 5.5–8 cm. Seeds elliptic, ca. 5 mm, smooth. Fl. May–Jun, fr. Jul–Aug.

• Forests, slopes, riverbanks. Chongqing, Hubei, Shaanxi, Shanxi, Sichuan.

**5. *Lathyrus japonicus*** Willdenow, Sp. Pl. 3: 1092. 1802.

海滨山黧豆 hai bin shan li dou

*Pisum maritimum* Linnaeus, Sp. Pl. 2: 727. 1753; *Lathyrus aleuticus* (Greene ex T. G. White) Pobedimova; *L. japonicus* var. *aleuticus* (Greene ex T. G. White) Fernald; *L. japonicus* subsp. *maritimum* (Linnaeus) P. W. Ball; *L. japonicus* var. *maritimum* (Linnaeus) Kartesz & Gandhi; *L. japonicus* f. *pubescens* (Hartman) H. Ohashi & Tateishi; *L. japonicus* subsp. *pubescens* (Hartman) Korobkov; *L. japonicus* var. *pubescens* (Hartman) Karlsson; *L. maritimum* Bigelow (1824); *L. maritimum* (Linnaeus) Fries (1835); *L. maritimum* var. *aleuticus* Greene ex T. G. White; *L. maritimum* f. *pubescens* (Hartman) Saelán; *L. maritimum* subsp. *pubescens* (Hartman) C. Regel; *L. maritimum* var. *pubescens* (Hartman) X. Y. Zhu; *L. maritimum* var. *velutinum* Fries; *P. maritimum* var. *pubescens* Hartman.

Herbs perennial, 15–50 cm tall. Stem stoloniferous, creeping, wingless. Leaves with branched or simple tendril; stipules sagittate, 10–30 mm, glabrous; leaflets 3–5-paired, long elliptic or obovate, 25–33 × 11–18 mm, glabrous, with reticulate veins visible on both surfaces. Raceme shorter than leaf, 2–5-flowered. Calyx campanulate, 9–10(–12) mm, glabrous; teeth unequal, longest tooth 5–6 mm. Corolla purple, ca. 21 mm; standard orbicular, with claw; wings narrowly obovate, occasionally white. Ovary linear, glabrous or rarely hairy. Legume brown or purple-brown, compressed, ca. 5 cm, glabrous or puberulent. Seeds subglobose. Fl. May–Jul, fr. Jul–Aug.

Seashores. Hebei, Jiangsu, Liaoning, Shandong, Zhejiang [widely distributed on coasts of temperate Asia, Europe, North America, and South America (Chile)].

Plants glabrous or slightly hairy have been called *Lathyrus japonicus* f. *japonicus*, whereas plants obviously hairy have been called *L. japonicus* f. *pubescens*. The two forms are sympatrically distributed in China and elsewhere. Although widely recognized, they appear to intrograde, so they are not formally recognized in this account. Plants with white wings and keels have been described as *L. japonicus* f. *albiflorus* Miyabe & Tatewaki (Trans. Sapporo Nat. Hist. Soc. 14: 185. 1936).

**6. *Lathyrus gmelinii*** (Fischer ex Candolle) Fritsch, Sitzungsber. Kaiserl. Akad. Wiss., Math.-Naturwiss. Cl., Abt. 1, 104: 516. 1895.

新疆山黧豆 xin jiang shan li dou

*Orobus gmelinii* Fischer ex Candolle, Prodr. 2: 378. 1825; *Lathyrus laevigatus* (Waldstein & Kitaibel) Grenier subsp. *gmelinii* (Fischer ex Candolle) Hendrych; *L. luteus* (Linnaeus) Moench var. *gmelinii* (Fischer ex Candolle) Reichenbach.

Herbs perennial, 60–150 cm tall. Stem erect, glabrous, wingless. Leaves aristate at apex; stipules foliose, semisagittate, 15–30 × 4–10 mm, glabrous, toothed; leaflets 3- or 4-paired, ovate, elliptic, or long elliptic, rarely lanceolate, 30–60(–90) × 10–50 mm, glabrous, with pinnate veins. Raceme longer than leaf, 7–12-flowered, glabrous. Calyx campanulate, ca. 1 cm, glabrous; longest tooth ca. 2 mm. Corolla orange-yellow, 2.5–3 cm; standard ovate, with claw; wings obovate, auriculate at base. Ovary linear, ca. 1.8 cm, glabrous. Legume brown, linear, 6–8 cm. Seeds light brown, smooth. Fl. May–Jul, fr. Jul–Aug.

Forests, riverbanks; 1400–2400 m. Xinjiang [Russia].

This and a number of other Eurasian taxa may represent entities in *Lathyrus laevigatus*, from which they are poorly distinguished.

**7. *Lathyrus krylovii*** Sergievskaya, Sist. Zametki Mater. Gerb. Krylova Tomsk. Gosud. Univ. Kuybysheva 1933(3–4): 3. 1933.

狭叶山黧豆 xia ye shan li dou

*Lathyrus laevigatus* (Waldstein & Kitaibel) Grenier subsp. *krylovii* (Sergievskaya) Hendrych.

Herbs perennial, 60–80 cm tall. Stem erect, glabrous, wingless. Leaves aristate at apex; stipules semisagittate, lanceolate or linear, 10–25 × 3–7 mm; leaflets 2–4-paired, linear to linear-lanceolate, 50–130 × 3–16 mm, glabrous, with pinnate veins. Raceme longer than leaf, 2–4-flowered. Calyx campanulate, ca. 8 mm, glabrous; longest tooth ca. 1.5 mm. Corolla yellow, 2–5 cm; standard orbicular, ca. 2.7 cm, with claw; wings narrowly obovate, auriculate at base. Ovary linear, glabrous. Legume brown, linear, 8–9 cm. Seeds elliptic, 3–4 mm. Fl. Jun–Jul, fr. Aug–Sep.

Hill forests; ca. 1800 m. Xinjiang [Russia].

**8. *Lathyrus vaniotii*** H. Léveillé, Repert. Spec. Nov. Regni Veg. 7: 230. 1909.

东北山黧豆 dong bei shan li dou

Herbs perennial, 40–70 cm tall. Stem erect, glabrous, wingless. Leaves aristate at apex; stipules semisagittate, subulate, occasionally linear, falcate with a short (ca. 2 mm) basal spur, 5–15 × 1–3 mm; leaflets glaucous-gray abaxially, dark green adaxially, (2 or)3- or 4(–6)-paired, lanceolate or narrowly lanceolate on lower stem leaves, narrowly ovate, rarely oblong on upper stem leaves, 40–60 × 15–25 mm, glabrous, with reticulate veins, apex shortly mucronate. Raceme 4–8-flowered. Calyx campanulate, ca. 11 mm, glabrous; longest tooth ca. 4 mm. Corolla purple-red, 1.8–2.5 cm; standard ca. 21 mm, with claw; wings equaling standard, ovate. Ovary linear, glabrous. Fl. May–Jun.

Forested slopes. Heilongjiang, Jilin [Korea].

**9. *Lathyrus caudatus*** Z. Wei & H. P. Tsui, Bull. Bot. Res., Harbin 4(1): 49. 1984.

尾叶山黧豆 wei ye shan li dou

Herbs perennial, to 120 cm tall. Stem strong, erect, branched, sparsely glandular, wingless. Leaves with simple or weakly branching tendril; stipules semisagittate, linear-lanceolate, 12–18 × 1.5–2 mm; leaflets 4- or 5-paired, ovate-lanceolate, 90–120 × 25–40 mm, glabrous, with 5 prominent veins, strongly caudate at apex. Raceme ca. 10 cm, many flowered. Calyx campanulate; teeth unequal, longest tooth ca. 7 mm. Corolla light yellow, 1.8–2 cm; standard orbicular, with claw; wings slightly shorter than keels. Ovary linear, glabrous, brown glandular. Legume linear, 6–8 cm, brown glandular. Seeds 8–12.

• Scrub forests; 100–200 m. Zhejiang (Jiande).

This species is known only from the type gathering.

**10. *Lathyrus anhuiensis*** Y. J. Zhu & R. X. Meng, Acta Phytotax. Sin. 24: 402. 1986.

安徽山黧豆 an hui shan li dou

*Lathyrus henanensis* S. Y. Wang.

Herbs perennial, 80–120 cm tall. Stem erect, much branched, glabrous, wingless. Leaves 10–30 cm, mucronate or with a simple tendril at apex; stipules semisagittate, 8–15 × 2–5 mm; leaflets 3–8-paired, narrowly elliptic or narrowly ovate, 30–70 × 10–30 mm, glabrous, with pinnate veins, margin entire. Raceme subequal or shorter than leaf, ca. 10-flowered. Calyx campanulate, unequal; longest tooth ca. 1/5 length of tube. Corolla yellow, 14–18 mm; standard broadly obovate, with claw; wings shorter than standard, obovate, subequaling keel. Ovary linear, ca. 11 mm, purple-brown glandular hairy; style curved inward. Legume light brown, linear, 6–8 cm. Seeds brown, oblong. Fl. May–Jul, fr. Jun–Sep.

• SE Anhui (Xuancheng), Henan.

This species is known from few gatherings: from the type gatherings of the species and its synonym *Lathyrus henanensis* (neither of which were available for this revision). Two incomplete specimens collected by Augustine Henry may represent additional gatherings of this: *Aug. Henry 6595* (BM) and a specimen dated 1889 (K).

**11. *Lathyrus palustris*** Linnaeus, Sp. Pl. 2: 753. 1753.

欧山黧豆 ou shan li dou

Herbs perennial, 15–100 cm tall. Stem climbing, branched, pubescent or glabrous, winged or unwinged. Leaves with simple or branched tendril at apex; stipules semisagittate, 12–25(–30) × 2–10 mm; leaflets 2–4-paired, linear to broadly lanceolate, without reflexed basal spur, 30–60 × 4–10(–15) mm, pubescent, veins pinnate or subparallel, abaxially prominent. Raceme longer than leaf, (2 or)3- or 4(–10)-flowered. Calyx campanulate, unequally toothed; longest tooth equaling tube. Corolla purple, 13–15(–20) mm; standard obovate, with claw; wings shorter than standard, obovate and longer than keels. Ovary linear. Legume linear, 3–4 cm, beaked at apex. Fl. and fr. Jul–Sep.

Marshes, wet meadows, a weed of rice fields; sea level to 3500 m. Gansu, Hebei, Heilongjiang, Hubei, Jiangsu, Jilin, Liaoning, Nei Mongol, Qinghai, Shanxi, Sichuan, Xinjiang, Xizang, Yunnan, Zhejiang [Japan, Korea, Mongolia, Russia; Europe, North America].

*Lathyrus palustris* is widely distributed in the N temperate zone in Europe, Russia, E Asia, and North America. It is a highly variable taxon with many entities described from it, although few of these stand up to scrutiny. East Asian specimens are often referred to *L. palustris* subsp. *pilosus*, but this is based purely on pubescence, a character with no other correlates. Consequently, we treat pubescent individuals at the varietal level. This species is often confused with *L. quinquerivius*. See under that species for the distinguishing characters.

- 1a. Stem wingless (subsp. *exalatus* H. P. Tsui) ..... 11c. var. *exalatus*  
 1b. Stem winged (subsp. *palustris*).  
 2a. Leaves with branched tendrils; leaflets 2–4-paired; raceme (2 or)3- or 4(or 5)-flowered; plants pubescent ..... 11a. var. *pilosus*  
 2b. Leaves with unbranched, short tendrils; leaflets 1- or 2(or 3)-paired; raceme 1- or 2(–4)-flowered; plants puberulent or glabrous ... 11b. var. *linearifolius*

**11a. *Lathyrus palustris* var. *pilosus*** (Chamisso) Ledebour, Fl. Ross. 1: 686. 1843.

毛山黧豆 mao shan li dou

*Lathyrus pilosus* Chamisso, Linnaea 6: 548. 1831; *L. palustris* subsp. *pilosus* (Chamisso) Hultén.

Plants pubescent. Stem winged. Leaves with branched tendrils; stipules semisagittate; leaflets 2–4-paired. Raceme (2 or)3- or 4(or 5)-flowered.

Gansu, Hebei, Heilongjiang, Hubei, Jiangsu, Jilin, Liaoning, Nei Mongol, Qinghai, Shanxi, Sichuan, Yunnan, Zhejiang [Japan, Korea, Mongolia, Russia].

Glabrous plants with the characteristics of *Lathyrus palustris* var. *pilosus* can be referred to the typical variety, *Lathyrus palustris* var. *palustris*, but such individuals have not been reported from China.

**11b. *Lathyrus palustris* var. *linearifolius*** Seringe in Candolle, Prodr. 2: 371. 1825.

线叶山黧豆 xian ye shan li dou

Plants puberulent or glabrous, 10–40 cm tall. Stem usually narrowly winged. Leaves with short, simple tendrils at apex; stipules linear; leaflets 1- or 2(or 3)-paired, linear, rarely elliptic-lanceolate. Raceme 1- or 2(–4)-flowered.

- Sichuan, Yunnan.

Plants of *Lathyrus palustris* from the mountains of Sichuan and Yunnan appear as depauperate specimens of the European *L. palustris* var. *palustris*, having reduced numbers of leaflets and flowers. This is morphologically consistent with Seringe's *L. palustris* var. *linearifolius* from Denmark and Switzerland, but it is unclear if these are convergent traits or represent a genuine disjunction. Pending molecular evidence, we treat these SW Chinese specimens under *L. palustris* var. *linearifolius*. Specimens of *L. quinquerivius* are sometimes labeled *L. palustris* var. *linearifolius*, but *L. quinquerivius* is a far larger plant with parallel veins in the leaflets and linear, acute stipules with a falcate basal spur.

**11c. *Lathyrus palustris* var. *exalatus*** (H. P. Tsui) X. Y. Zhu in X. Y. Zhu et al., Legumes China, 204. 2007.

无翅山黧豆 wu chi shan li dou

*Lathyrus palustris* subsp. *exalatus* H. P. Tsui, Bull. Bot. Res., Harbin 4(1): 54. 1984; *L. palustris* f. *exalatus* H. P. Tsui; *L. palustris* f. *pubescens* H. P. Tsui; *L. palustris* var. *pubescens* (H. P. Tsui) X. Y. Zhu.

Plants glabrous to pubescent. Stem wingless. Stipules large, 12–25(–30) × 2–8 mm; leaflets usually broadly lanceolate, 30–60 × 5–10(–15) cm, veins subparallel. Raceme lax, (2 or)3–8(–10)-flowered.

- Shanxi, Sichuan, Xinjiang, Xizang, Yunnan.

Pubescent plants have been separated at the form and varietal levels, but close observation shows a continuum from glabrous to puberulent to pubescent individuals, with no clear separation into two groups. Consequently, we treat this as a single variety under the subspecies.

**12. *Lathyrus quinquerivius*** (Miquel) Litvinov in Komarov & Alissova-Klobukova, Opređ. Rast. Dal'nevost. Kraia 2: 683. 1932.

山黧豆 shan li dou

*Vicia quinquerivius* Miquel, Ann. Mus. Bot. Lugduno-Batavi 3: 50. 1867.

Herbs perennial, 20–80 cm tall. Stem erect or clambering over surrounding vegetation, rarely branched, winged. Leaves with simple tendrils; stipules linear, with reflexed basal spur, often falcate, 7–23 × 0.2–2 mm; leaflets 1- or 2(or 3)-paired, elliptic-lanceolate or linear-lanceolate, 35–80 × 5–8 mm, pubescent, with 5 stiff, prominent parallel veins, rigid when dry. Raceme 5–8-flowered. Calyx campanulate, pubescent; longest tooth equaling tube. Corolla purple-blue or purple, sometimes with white wings and keel, (12–)15–20 mm; standard orbicular, with claw; wings narrowly obovate, auriculate at base. Ovary densely hairy. Legume linear, 3–5 cm. Fl. May–Jul, fr. Aug–Sep.

Forests, hill slopes, roadsides; below 2500 m. Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Nei Mongol, Qinghai, Shandong, Shanxi, Sichuan [Japan, Korea, Russia].

This species is often confused with *Lathyrus palustris* but can be distinguished by the five strong, parallel veins in long, slender leaflets. The linear, acute stipules with a reflexed basal spur, the strong wings on the stems, and the simple tendrils also aid in identification.

Herbarium specimens are often mislabeled as *Lathyrus palustris* var. *linearifolius*.

**13. *Lathyrus komarovii*** Ohwi, J. Jap. Bot. 12: 329. 1936.

三脉山黧豆 san mai shan li dou

*Orobanchaceae* *Orobanchaceae* Maximowicz, Prim. Fl. Amur. 83. 1859; *Lathyrus alatus* (Maximowicz) Komarov (1904), not Tenore (1811), nor Smith (1813); *O. vernus* Linnaeus var. *alatus* (Maximowicz) Regel.

Herbs perennial, 40–70 cm tall. Stem erect, rarely branched, glabrous, narrowly winged. Leaves aristate at apex; rachis narrowly winged; stipules semisagittate, 15–25 × 3–8(–12) mm, rarely dentate; leaflets (2 or)3–5-paired, narrowly ovate to oblanceolate, glabrous, with 3(–5) parallel veins raised



abaxially and sunken adaxially, apex acuminate. Raceme shorter than leaf, 3–8-flowered; bracts membranous, persistent. Calyx campanulate, glabrous; longest tooth ca. 5 mm, equaling tube. Corolla purple, 13–18 mm; standard orbicular, with claw; wings shorter than standard, auriculate at base. Ovary linear, glabrous. Legume black-brown, linear, 3.7–4.5 cm, glabrous. Seeds brown, subglobose, smooth. Fl. May–Jun, fr. Jun–Aug.

Forests, grasslands. Heilongjiang, Jilin, Nei Mongol [Korea, Russia].

**14. *Lathyrus tuberosus*** Linnaeus, Sp. Pl. 2: 732. 1753.

玫红山黧豆 mei hong shan li dou

Herbs perennial; rhizomes bearing small tubers. Stem 30–120 cm tall, erect, glabrous, wingless. Leaves with simple or branched tendril at apex; stipules semisagittate, 5–20 × 1–4 mm; leaflets 1-paired, elliptic, oblong, or obovate, glabrous, with parallel veins. Raceme 2–7-flowered. Calyx campanulate, 6–7 mm; longest tooth shorter than tube. Corolla purple-red, 1.5–2 cm; standard subovate, with claw; wings obovate, auriculate at base. Ovary linear; style twisted. Legume brown, linear, 2–4 cm, glabrous. Seeds brown, elliptic, tuberculate. Fl. Jun–Aug, fr. Aug–Sep.

Water meadows, riverbanks; 500–2400 m. Xinjiang [Kazakhstan, Russia; Europe].

**15. *Lathyrus sativus*** Linnaeus, Sp. Pl. 2: 730. 1753.

家山黧豆 jia shan li dou

Annual herbs, 30–50(–70) cm tall. Stem suberect, glabrous, winged. Leaves with tendril at apex; rachis winged; stipules semisagittate, 18–25 × 2–5 mm; leaflets 1-paired, lanceolate to linear, 18–25 × 2–5 mm, with parallel veins, margin entire. Raceme 1(or 2)-flowered; rachis 3–6 cm. Calyx campanulate, subequally toothed, 2–3 × as long as tube. Corolla white, blue, or pink, 12–15(–24) mm. Ovary linear; style twisted. Legume subelliptic, 2.5–3.5(–4) cm, 2-winged along sutures. Seeds smooth. Fl. Jun–Jul, fr. Aug.

Cultivated as a fodder crop in N China, casual elsewhere [widely cultivated and naturalized; of uncertain origin].

**16. *Lathyrus odoratus*** Linnaeus, Sp. Pl. 2: 732. 1753.

香豌豆 xiang wan dou

Annual herbs, 50–200 cm tall. Stem climbing, much branched, somewhat hairy, winged. Leaves with branched tendril at apex; rachis winged; stipules semisagittate; leaflets 1-paired, ovate-oblong or elliptic, 20–60 × 7–30 mm, with pinnate veins, rarely subparallel veins, margin entire. Raceme longer than leaf, 1–3(or 4)-flowered. Calyx campanulate, equally toothed and longer than tube. Corolla usually purple, or other colors, 20–30 mm. Ovary linear; style twisted. Legume brown-yellow, linear, 5–7 cm, pubescent. Seeds smooth. Fl. and fr. Jun–Sep.

Widely cultivated in China and worldwide as an ornamental and cut flower [native to Italy (Sicily)].

**17. *Lathyrus latifolius*** Linnaeus, Sp. Pl. 2: 733. 1753.

宽叶山黧豆 kuan ye shan li dou

Herbs perennial, to 3 m tall. Stem erect, quadrangular, pubescent or glabrous, winged. Leaves with branched tendril at apex; stipules semisagittate, lanceolate to ovate; leaflets 1-paired, elliptic to elliptic-orbicular, or ovate to linear, (30–)40–150 × 3–50 mm, with parallel veins. Raceme 5–15-flowered. Calyx campanulate, ca. 6 mm, equally 5-toothed. Corolla purple to pink, (15–)20–30 mm. Style twisted. Legume brown, 5–11 cm, glabrous. Seeds 10–15.

Cultivated in Shaanxi [native to C and S Europe; cultivated worldwide in temperate areas as an ornamental and fodder crop].

**18. *Lathyrus pratensis*** Linnaeus, Sp. Pl. 2: 733. 1753.

牧地山黧豆 mu di shan li dou

Herbs perennial, 30–120 cm tall. Stem decumbent or climbing, wingless. Leaves with simple or branched tendril at apex; stipules sagittate, (5–)10–45 × 3–10(–15) mm; leaflets 1-paired, elliptic, lanceolate, or linear-lanceolate, 10–30(–50) × 2–9(–13) mm, puberulent, with parallel veins. Raceme 3–6 × as long as leaf, 5–12-flowered. Calyx campanulate, pubescent; longest tooth longer than tube. Corolla yellow, 12–18 mm; standard orbicular, ca. 14 mm, with claw; wings slightly shorter than standard. Legume black, linear, 2.5–4.5 cm. Seeds yellow or brown, orbicular, smooth. Fl. Jun–Aug, fr. Aug–Oct.

Forests, hill slopes, roadsides. Gansu, Heilongjiang, Hubei, Qinghai, Shaanxi, Sichuan, Xinjiang, Yunnan [Asia, Europe].

**166. LENS** Miller, Gard. Dict. Abr., ed. 4, [765]. 1754, nom. cons.

兵豆属 bing dou shu

Bao Bojian (包伯坚); Nicholas J. Turland

Herbs annual. Stem erect or procumbent. Leaves paripinnate with rachis terminating in a tendril or mucro; stipules obliquely lanceolate; leaflets 2- to many paired, obovate, obovate-oblong, or obovate-lanceolate, margin entire. Inflorescence a 1- to many-flowered raceme. Flowers small. Calyx deeply divided into equal teeth at least 2 × as long as tube. Corolla white or otherwise colored; standard obovate; wings and keel with claw and auricle. Stamens diadelphous; staminal tube oblique at apex; filaments filiform. Ovary shortly stalked or subsessile; style dorsally compressed, pubescent on upper side. Legume short, strongly compressed. Seeds 1 or 2, brown, lenticular.

Four to six species: Mediterranean region to C Asia, extending to the Canary islands and tropical Africa: one species (introduced) in China.

**1. *Lens culinaris*** Medikus, Vorles. Churpfälz. Phys.-Öcon. Ges. 2: 361. 1787.

兵豆 bing dou

*Ervum lens* Linnaeus, Sp. Pl. 2: 738. 1753; *Lens esculenta* Moench; *Vicia lens* (Linnaeus) Cosson & Germain; *V. pisicarpa* H. Léveillé.

Plants 10–50 cm tall. Stem branched from base, pubescent. Leaves: stipules 3–7 mm, white villous; leaflets sessile, 4–12-

paired, 6–20 × 2–5 mm, both surfaces villous. Raceme 1–3-flowered; rachis densely white hairy. Calyx densely villous. Corolla white or blue-purple, 4.5–6.5 mm. Ovary shortly stalked, glabrous. Legume yellow, oblong, inflated, 10–15 mm. Fl. Apr–Sep, fr. May–Sep.  $2n = 14, 21, 26$ .

Cultivated; 800–3600 m. Gansu, Hebei, Henan, Hubei, Jiangsu, Nei Mongol, Shaanxi, Shanxi, Sichuan, Xinjiang, Xizang, Yunnan [widely cultivated elsewhere; of cultivated origin].

The seeds (lentils) are edible.

## 167. **PISUM** Linnaeus, Sp. Pl. 2: 727. 1753.

豌豆属 wan dou shu

Bao Bojian (包伯坚); Nicholas J. Turland

Herbs annual or perennial. Stem often climbing by means of tendrils, terete, glabrous. Leaves paripinnate with rachis terminating in a tendril; stipules leaflike, cordate, larger than leaflets (to 10 cm); leaflets 1–3-paired, ovate to elliptic, margin entire or dentate. Inflorescence a 1- to many flowered raceme. Calyx campanulate; teeth ± leaflike, at least 2 teeth less than  $2 \times$  as long as tube. Corolla white or otherwise colored; standard obovate. Stamens diadelphous; staminal tube not oblique at apex; filaments distally slightly dilated. Ovary sessile; ovules many; style curved inward, distally dilated and margin recurved forming a laterally compressed body, longitudinally grooved, hairy on upper side. Legume long elliptic, inflated, apex acute. Seeds many, spheroid.

Two or three species: Mediterranean region to SW Asia, one species cultivated in temperate regions worldwide, including China.

**1. *Pisum sativum*** Linnaeus, Sp. Pl. 2: 727. 1753.

豌豆 wan dou

*Pisum arvense* Linnaeus; *P. sativum* subsp. *arvense* (Linnaeus) Ascherson & Graebner; *P. sativum* var. *arvense* (Linnaeus) Poiret.

Herbs annual, 0.5–2 m tall, glabrous. Stem climbing. Leaves: stipules to  $10 \times 6$  cm, margin toothed; leaflets ovate, 2–7 × 1–4 cm. Raceme 1–3-flowered. Corolla variable in color,

usually white and/or purple, 15–35 mm. Ovary glabrous; style flat. Legume 2.5–12 × 1–2.5 cm. Seeds 2–10. Fl. Feb–Sep, fr. Feb–Sep.  $2n = 14$ .

Cultivated, sometimes persisting as a relic or escape from cultivation; sea level to 3800 m. Throughout China [cultivated in temperate regions worldwide; of cultivated origin].

The seeds (peas) are edible, as are the young legumes of some cultivars (snow pea, mange-tout).