138. PHYLLOLOBIUM Fischer in Sprengel, Novi Provent. 33. 1818.

Perennial herbs with mostly well-developed stems, with basified hairs. Stipules free from petiole and from each other, very rarely shortly connate behind stem. Racemes several, with a distinct peduncle; bracts persistent. Bracteoles present or more rarely absent. Calyx campanulate. Standard wide, mostly suborbicular to transversely elliptic, with a very short claw, emarginate at apex; keel and wing petals not interlocking due to absence of bosses on keel and matching sockets on wings. Style with a brush of straight, rigid, short hairs just below glabrous stigma. Legumes 1-locular or incompletely to completely 2-locular.

Twenty-two species: mostly in China, a small number in the Himalayas and one in Tajikistan; 21 species (17 endemic) in China.

1a. Plants with slender stems up to 90 cm, at least in lower 1/2 with long, horizontally spreading lateral branches; hairs slender, 0.1–0.4 mm .......................................................... 8. P. eutrichus
1b. Stems mostly shorter, without horizontally spreading lateral branches, if sometimes as long as above, then with other kinds of hair.

2a. Plants in all parts covered with bladderlike, scalelike hairs up to 0.1 mm ........................................ 4. P. chinense
2b. Plants at least at calyx with slender, longer, not bladderlike hairs.

3a. Petals yellow, rarely with violet-tipped keel.
3b. Petals blue or violet, rarely yellow at base only.

4a. Plants 30–75 cm tall; calyx 7–12 mm, teeth 4–9 mm; keel as long as wings ........................................ 5. P. dolichocheaete
4b. Plants 10–50 cm tall; calyx up to 10 mm, teeth up to 6 mm; keel longer than wings.

5a. Leaflets in 7–13 pairs, 5–16 × 1–4 mm, distinctly more than 2 × as long as wide; peduncles 3–11 cm .... 9. P. flavovirens
5b. Leaflets in 4–10 pairs, 5–10 × 2.5–5 mm, ca. 2 × as long as wide; peduncles 1.5–4 cm ...................... 2. P. camptodontum

6a. Plants at least in part with spreading hairs.
6b. Plants with appressed to ascending hairs.

7a. Calyx 8–10 mm, white hairy, teeth 4.5–6 mm; standard 15–19 mm; legumes with a stipe ca. 5 mm, 25–30 mm, 2-locular ........................................................................................................ 21. P. turgidocarpum
7b. Calyx shorter, white and black hairy, teeth mostly shorter; standard 7–13 mm; legumes with a stipe up to 3 mm or subsessile, up to 20 mm, 1-locular.

8a. Leaflets 8–20 mm; bracts 8–10 mm; calyx 7–8 mm, with teeth 4–5 mm ........................................ 12. P. lineariauriferum
8b. Leaflets distinctly smaller; bracts at most up to 4 mm; calyx up to 6 mm with shorter teeth.

9a. Stipules 2.5–4.5 mm; leaflets 3–15 mm; bracts 1.5–4 mm; bracteoles 0.5–2 mm; calyx teeth 1.5–4 mm; legumes 5–6.5 mm high and wide ................................................... 20. P. tribulifolium
9b. Stipules up to 2.5 mm; leaflets 2–6 mm; bracts up to 2 mm; bracteoles mostly absent, if present, then ca. 0.3 mm (in P. milingense); calyx teeth up to 2.5 mm; legumes either much higher than wide or much wider than high.

10a. Stems with appressed hairs; leaflets loosely to rather densely hairy adaxially; bracts 1.5–2 mm; legumes 15–20 mm, 8–12 mm high, strongly compressed laterally, without beak .......... 10. P. heydei
10b. Stems with partly spreading hairs; leaflets glabrous to subglabrous adaxially; bracts 0.6–1 mm; legumes 10–15 mm, 2.5–3 mm high and 5–7 mm wide, with a short beak ............ 13. P. milingense

11a. Leaflets on both surfaces loosely to densely hairy.
11b. Leaflets adaxially glabrous or rarely sparsely hairy.

12a. Stipules 2–3 mm; bracts 4–6 mm, with spreading hairs; calyx 7–8 mm, covered with spreading white and dark brown hairs ................................................................. 3. P. chapmanianum
12b. Stipules 4–7 mm; bracts 6–10 mm, with appressed to ascending hairs; calyx 9–10 mm, covered with appressed to ascending white and shorter black hairs ................................ 11. P. lasaense

13a. Standard up to 10 mm; bracts up to 2 mm; bracteoles absent.
13b. Standard at least 12 mm; bracts mostly distinctly longer.

14a. Plants up to 50 cm tall; calyx 7–8 mm; legumes 25–30 mm .................................................... 17. P. siccaneum
14b. Plants up to 30 cm tall; calyx up to 5.5 mm; legumes up to 13 mm.

15a. Stem and peduncles loosely to rather densely hairy; leaflets narrowly elliptic, 3–11 × 1–2 mm, acute; keel as long as wings ............................ 15. P. prodigiosum
15b. Stem and peduncles glabrous to sparsely hairy; leaflets elliptic, 4–9 × 1.5–4 mm, obtuse; keel distinctly longer than wings ............................................ 16. P. sanbilingense

16a. Stem, rachises, and peduncles glabrous or sparsely hairy; leaflets 10–30 × 3.5–10 mm ............ 14. P. pastorium
16b. Stem, rachises, and peduncles loosely to rather densely hairy, sometimes only sparsely hairy; leaflets up to 12 mm.

长小苞膨果豆  chang xiao bao peng guo dou


Plants 20–40(–60) cm tall, with appressed hairs 0.1–0.4 mm. Stems several, (6–)20–55 cm, mostly glabrous at base, in lower part loosely and in upper part more densely white and black hairy. Leaves 2–6 cm; stipules 3–5 mm, sparsely to loosely hairy; petiole short, 0.1–1 cm, like rachis sparsely to rather densely hairy; leaflets in lower leaves mostly in 3–5 pairs, in upper leaves mostly in 5–10 pairs, 5–12(–16) × (2–)3–6 mm, abaxially subglabrous or loosely to rather densely white hairy, adaxially glabrous to very rarely appressed hairy. Racemes short, nearly capitate-umbellate, with 2–7(–9) flowers; peduncle 1–6.5 cm, loosely to rather densely predominantly black hairy; bracts 3–7 mm, sparsely hairy. Bracteoles 1–7 mm. Calyx 6–10 mm, covered loosely to rather densely with appressed, predominantly blackish hairs up to 0.3 mm; teeth 3.5–6 mm. Petals violet to purplish; standard 12.5–17.5 × 9–14 mm; wings 11–16 mm; keel 12.5–16 mm. Legumes with a stipe 2–3.5 mm, 16–18 mm, 6–7 mm high and wide, with a beak 2–4 mm, 1-locular, loosely covered with mostly dark brown appressed hairs 0.05–0.15 mm.

* 2600–4000 m. Gansu, Qinghai, Sichuan, Xizang, Yunnan.


弯齿膨果豆  wan chi peng guo dou

*Astragalus camptodontus* Franchet, Pl. Delavay. 160. 1889; *A. camptodontoides* N. D. Simpson; *A. camptodontus* var. *lichiangensis* (N. D. Simpson) K. T. Fu; *A. lichiangensis* N. D. Simpson; *A. rockii* C. Marquand & Airy Shaw.

Plants 25–50 cm tall, with exception of leaflets and calyx covered with subpressed, bladderlike, minute, predominantly black hairs 0.05–0.2 mm. Stems slender, mostly glabrous at base, in middle part loosely and in upper part more densely hairy. Leaves 2–4.5 cm; stipules 2–5 mm, often reflexed, hairy mostly only at margins; petiole 0.3–0.5 cm, like rachis loosely to rather densely predominantly white hairy; leaflets in 4–10 pairs, 5–10 × 2.5–5.5 mm, axially loosely to rather densely covered with appressed white hairs 0.2–0.35 mm, axially glabrous. Racemes short, with 1–6 flowers; peduncle 1.5–4 cm, loosely hairy; bracts 1.5–5 mm, white ciliate. Bracteoles 1–4 mm. Calyx 6–8 mm, covered loosely to rather densely with appressed, mostly dark brown, slender hairs 0.1–0.2 mm; teeth 2.5–5.5 mm. Petals yellow with violet-tipped keel or violet-purple; standard 13–17 × 9–13 mm; wings 11–13 mm; keel 13–14.5 mm. Legumes with a stipe 2.5–3 mm, (13–)17–21 mm, 3.5–6 mm high and wide, with a beak 2–3 mm, 1-locular, glabrous.

* 2500–3800 m. Sichuan, Xizang, Yunnan.


筆生膨果豆  man sheng peng guo dou


Plant hairs appressed to nearly spreading, white, in inflorescence predominantly dark brown. Stems 6.5–11 cm, slender, in lower parts glabrescent, in upper part rather densely white and dark brown hairy. Leaves 1–2.2 cm, sessile; stipules 2–3 mm, hairy; rachis hairy; leaflets in (2–)4–7 pairs, 4–6 × 2–3.5 mm, abaxially densely and adaxially loosely to densely covered with ± appressed hairs. Racemes 1–3-flowered; peduncle 0.8–1.5 cm, rather densely covered with ± appressed white and brownish hairs; bracts 4–6 mm, spreading hairy. Bracteoles 4–5 mm. Calyx 7–8 mm, rather densely covered with spreading, white and dark brown hairs; teeth ca. 4 mm. Petals violet; standard transversely elliptic, ca. 10 × 8.5 mm; wings 9.5–10 mm; keel ca. 9 mm. Ovary with a stipe ca. 0.5 mm, densely black brown and white hairy. Legumes unknown.
4. **Phyllolobium chinense** Fischer in Sprengel, Novi Provent. 33. 1818.

**背扁膨果豆** bei bian peng guo dou

*Astragalus complanatus* Bunge; *A. pratensis* Ulbrich.

Plants 30–90(–100) cm tall, covered with ± appressed, very short, scalelike, bladderlike hairs up to 0.1 mm. Stems in lower part glabrous, in upper part loosely to rather densely hairy. Leaves 4–11 cm; stipules 1–3 mm, obliquely inserted at stem and sometimes slightly clasping stem, sparsely to loosely hairy; petiole very short, rachis sparsely to loosely white hairy; leaflets in 4–10 pairs, 5–18 × 2.5–11 mm, abaxially sparsely to loosely hairy, adaxially glabrous. Racemes 4–9 cm, remotely 2–7-flowered; peduncle 4–9 cm, sparsely to loosely white hairy; bracts 1–2.5 mm, white and black hairy. Bracteoles 0.5–1 mm. Calyx 4–7 mm, loosely to densely white or black hairy; teeth 2–3.5 mm. Petals yellow to reddish; standard orbicular or transversely elliptic, 9–11 × 8–10.5 mm; wings 8–11 mm; keel 9–10 mm. Legumes with a stipe 1–1.5 mm, 30–44 mm, 4–8 mm high, with a straight beak 3–4 mm, 1-locular, loosely to rather densely covered with appressed white or black hairs.

- 1000–1700 m. Gansu, Hebei, Henan, Jiangsu, Jilin, Ningxia, Qinghai, Shaanxi, Shanxi, Sichuan.


**芒齿膨果豆** mang chi peng guo dou


Plants 30–75 cm tall, covered with appressed to ascending hairs 0.3–0.5 mm. Stems 10–25 mm in diam., sparsely to loosely covered in lower part with white hairs, in upper part with increasingly blackish brown hairs, and in inflorescence region only with black hairs. Leaves 3.5–11.5 cm; stipules 4–6 mm, glabrous or sparsely to loosely hairy, at margins more densely hairy; petiole very short, like rachis sparsely to loosely hairy; leaflets in (4 or)5–12 pairs, 4–21.5 × 1.5–6 mm, abaxially sparsely to loosely hairy, adaxially glabrous. Racemes 1–2 cm, densely, later somewhat more dense, 3–11-flowered; peduncle 4–15 cm, often covered, mostly with brownish black hairs, bracts 4–8 mm, nearly glabrous to loosely or at margins more densely black hairy. Bracteoles 0.5–4 mm. Calyx 7–12 mm, sparsely to loosely or densely mostly appressed black hairy; teeth 4–9 mm, often ± strongly curved. Petals greenish yellow to sulfur-yellow; standard 14–17 × 12–15 mm; wings 12–15 mm; keel 12–15 mm. Legumes with a stipe 2–3 mm, 16–22 mm, 3.5–4.5 mm high, with a beak 2–3 mm, 1-locular, glabrous or sparsely to loosely covered with white to blackish brown hairs.

- 2700–4300 m. Sichuan, Xizang, Yunnan.


**亚东膨果豆** ya dong peng guo dou

*Astragalus donianus* Candolle, Prodr. 2: 283. 1825; *A. monanthus* K. T. Fu; *A. pratii* N. D. Simpson var. uniflorus E. Peter; *A. pycnorrhizus* Wallich ex Bentham; *A. yatungensis* C. C. Ni & P. C. Li.

Plants creeping to prostrate. Stems 15–44 cm, in basal part glabrous to sparsely and in upper part loosely or more rarely rather densely covered with appressed white or white and black hairs 0.1–0.2 mm. Leaves 1.5–5 cm; stipules 1–3 mm, free or in front of petiole shortly connate, lower and middle ones 1/2 to completely embracing stem but not connate, at margins and often also elsewhere loosely hairy; petiole short, rachis loosely hairy like stem; leaflets in 4–8 pairs, 2–7(–9) × 1.5–4 mm, emarginate, abaxially at first rather densely appressed hairy, becoming loosely hairy with age, hairs ca. 0.3 mm, adaxially glabrous. Racemes short, 1–3(–5)-flowered; peduncle 1.5–6 cm, loosely white and black hairy; bracts 1–4 mm, sparsely hairy. Bracteoles 1–3 mm. Calyx 5.5–7.5 mm, loosely to rather densely covered with ± ascending white and black hairs 0.2–0.5 mm; teeth 2.5–4.5 mm. Petals blue-violet to purple or dark red; standard orbicular to transversely elliptic, 13–17 × 11–13.5(–15) mm; wings 12–16 mm; keel 12–15(–16) mm. Legumes with a stipe 2–3 mm, 15–30 mm, (5–)6–8(–9.5) mm high, with a beak 2–3 mm, 1-locular, at first densely, later loosely, shortly, white and blackish or only blackish hairy.

Xizang, Yunnan [Bhutan, India, Nepal].


**九叶膨果豆** jiu ye peng guo dou


Plants subappressed white hairy or in inflorescence also with a few black hairs. Stems prostrate, 40–60 cm, sparsely to loosely covered with hairs up to 0.15 mm and also with much shorter, minute, nearly globose hairs. Leaves 2–4.5 cm; stipules 1.5–3 mm, subglabrous; petiole short, rachis hairy like stem; leaflets in 3 or 4 pairs, 6–11 × 3–5.5 mm, abaxially loosely covered with hairs 0.3–0.5 mm, adaxially glabrous. Racemes loosely 2–4-flowered; peduncle 2.5–3.5 cm, hairy like stem; bracts 2–3 mm, white hairy. Bracteoles not always present, 1–2 mm. Calyx 6.5–7 mm, loosely covered with appressed white hairs up to 0.5 mm and with fewer and shorter black hairs; teeth 2.5–3 mm. Petals pale blue; standard widely obovate to suborbicular, ca. 12 × 7.5–8 mm; wings ca. 11 mm; keel ca. 12 mm. Legumes with a stipe ca. 3 mm, 25–28 mm, 2.5–3 mm high and 7–8 mm wide, very shortly acuminate, 1-locular, sparsely to loosely covered with subappressed white hairs 0.1–0.25 mm.

- Yunnan.


**真毛膨果豆** zhen mao peng guo dou

Plants 30–90(–100) cm tall, covered with always thin, slender hairs 0.1–0.4 mm. Stems at least in lower 1/2 with ± horizontally spreading, long lateral branches, glabrous in lower part, in upper part and lateral branches loosely appressed white hairy, in upper part with some black hairs mixed in. Leaves 2–9 cm, subsessile; stipules 2–5 mm, sparsely hairy or subglabrous; racis loosely appressed white hairy; leaflets in 5–8 pairs, 4.8 × 2.5–5 mm, abaxially loosely hairy, adaxially toward margins sparsely hairy or subglabrous, apex emarginate. Racemes 2–5 cm, remotely 2–7-flowered; peduncle 2.5–6 cm, sparsely white and black hairy; bracts 1.5–2.5 mm, white and black hairy. Bracteoles sometimes present, ca. 1 mm. Calyx 5–6 mm, sparsely to very sparsely white and black hairy; teeth 2–2.5 mm. Petal color unknown; standard widely elliptic to orbicular, 12–13 × ca. 7.5 mm; wings ca. 9 mm; keel 11–12 mm. Legumes subsessile, 15–20 mm, 8–12 mm high, compressed laterally, 1-locular, rather densely, later loosely, covered with short, appressed to ascending, white or black and white hairs.

● 2400–3000 m. Yunnan.


黄绿膨果豆 huang lü peng guo dou


Plants loosely caespitose, in vegetative parts covered with appressed white hairs 0.1–0.3 mm, in inflorescence mostly with dark brownish to blackish hairs. Stems 10–40(–60) cm, prostrate to ascending or erect, in lower part only with practlike stipules without developed leaves, loosely hairy. Leaves 2–11 cm, nearly sessile; stipules 4–8 mm, loosely hairy or sparsely ciliate; racis loosely hairy; leaflets in 7–13 pairs, 5–16 × 1–4(–7) mm, abaxially sparsely to loosely hairy, adaxially glabrous, mostly somewhat cuculate at apex, with a cusp up to 0.5 mm. Racemes short, densely 3–9-flowered; peduncle 3–11 cm, blackish brown hairy; bracts 5–6 mm, with blackish brown hairs. Bracteoles 1.5–4 mm. Calyx 7–9 mm, loosely covered with appressed black hairs 0.05–0.1 mm; teeth unequal, 2 upper 2–4 mm, 3 lower 4–6 mm. Petals yellowish, sometimes with purple tip; standard suborbicular, ca. 15 × 11 mm; wings ca. 12 mm; keel ca. 13 mm. Ovary with a stipe ca. 3 mm, linear, glabrous to white hairy. Legumes unknown.

● 2500–3000 m. Yunnan.


毛柱膨果豆 mao zhu peng guo dou


Plants up to 12 cm tall, densely hairy. Stems in leafy part ca. 1 cm, sparsely to loosely covered with subappressed, flexuous, tanged, white hairs 0.1–0.2 mm. Leaves 1–2.5 cm; stipules 1–2.5 mm, shortly connate behind stem and mostly also in front of petiole, sparsely to loosely white hairy; petiole 0.2–0.6 cm, like racis loosely to rather densely covered with subappressed to spreading, white hairs 0.2–0.4 mm; leaflets in 3–7 pairs, 2–5(–7) × 1–4 mm, both surfaces densely to rather densely covered with subappressed to ascending, partly flexuous, tanged, white hairs 0.5–0.7 mm. Racemes (1 or)2–5-flowered; peduncle 1–4.5 cm, often curved, loosely hairy like stem in upper part; bracts 1.5–2 mm, hairy. Calyx 3–6 mm, densely to rather densely covered with ascending to flexuous, white hairs 0.5–0.7 mm, with very short, appressed, black hairs mixed in; teeth 1.5–2(–3) mm. Petals pink to pale violet; standard orbicular to transversely elliptic, 9–12 × 9–13 mm; wings 9–11 mm; keel 8–10 mm. Legumes subsessile, 15–20 mm, 8–12 mm high, compressed laterally, 1-locular, rather densely, later loosely, covered with short, appressed to ascending, white or black and white hairs.

3900–5800 m. Qinghai, Sichuan, Xinjiang, Xizang [India, Nepal].


拉萨膨果豆 la sa peng guo dou


Plants densely covered with appressed or nearly ascending hairs (0.3–)0.5–1 mm. Stems creeping, prostrate to ascending or erect, 15–30 cm, loosely to densely covered with subappressed, tanged, white and brownish black, partly very short hairs. Leaves 2.5–4 cm, nearly sessile; stipules 4–7 mm, densely white hairy; racis densely hairy; leaflets in 4–9 pairs, 3–10 × 1.5–4 mm, abaxially densely and adaxially loosely silvery hairy. Racemes short, 2–7-flowered; peduncle 1.5–3 cm, rather densely white and black hairy; bracts 6–10 mm, white or black and black hairy. Bracteoles 4–5 mm. Calyx 9–10 mm, densely covered with tanged, subappressed to ascending, white hairs and with mostly distinctly shorter black hairs; teeth 4–5 mm. Petals purple to violet; standard orbicular to transversely elliptic, 10–12 × 8–11 mm; wings 10–11 mm; keel 8–10 mm. Legumes shortly stipitate, 6–10 mm, 3–4 mm high and wide, with a short beak, nearly fully 2-locular, loosely covered with appressed white and also some black hairs 0.1–0.2 mm.

● 4100–4700 m. Xizang.


线耳膨果豆 xian er peng guo dou


Plants 20–30 cm tall, with subappressed to spreading hairs 0.3–1 mm. Stems erect, often curved, loosely to rather densely covered with ascending to ± spreading mostly white hairs. Leaves 3–5 cm, subsessile; stipules 4–7 mm, loosely white hairy, at base also black hairy; racis loosely covered with subappressed to spreading white and scattered black hairs; leaflets in 5 or 6 pairs, 8–20 × 2–5 mm, both surfaces loosely to rather densely subappressed hairy. Racemes loosely 4–6-flowered; peduncle 4–5 cm, loosely covered with ± spreading, mostly black hairs; bracts 8–10 mm, black hairy. Bracteoles ca. 2 mm. Calyx
7–8 mm, loosely to rather densely covered with ascending to ± spreading white and black hairs; teeth 4–5 mm. Petals ?bluish; standard widely ovate to suborbicular, 12–13 × 10–11 mm; wings 10.5–11 mm; keel 12–13 mm. Legumes (immature) with a stipe ca. 3 mm, narrowly ellipsoid, ca. 10 mm, 1-locular, densely covered with subapressed to ascending white hairs.

- Sichuan.


米林膨果豆 mi lin peng guo dou


Plants covered with mostly white hairs. Stems prostrate, 5–30 cm, often zigzaglike bent, in basal parts glabrous or sparsely hairy, in upper parts loosely to rather densely covered with appressed to spreading white or totally black and white hairs 0.2–0.3(–0.4) mm. Leaves 1–2.5 cm; stipules 1.5–2 mm, sparsely hairy; petiole 0.3–0.5 cm, like rachis loosely to rather densely hairy, hairs subappressed to spreading, white, sometimes also some black; leaflets in 3–6 pairs, 2–4 × 1–2 mm, abaxially densely to rather densely covered with ± appressed, short, white hairs, more rarely also with black hairs, adaxially glabrous or sometimes with a few appressed hairs toward base and margins. Racemes loosely 1–4-flowered; peduncle 1–2 cm, rather densely covered with mostly appressed, short, white hairs; bracts 0.6–1 mm, mostly white hairy. Bracteoles mostly absent, if present, less than 0.3 mm. Calyx 3–5 mm, rather densely covered with subappressed to spreading or even spreading, short, white hairs, sometimes also with black hairs; teeth 1.5–2.5 mm. Petals pink or purple to violet; standard or suborbicular, 12–13 × 9–10 mm; wings ca. 11 mm; keel ca. 11 mm. Legumes with a stipe ca. 4 mm, 15–25 mm, ca. 5 mm high and wide, with a straight beak 1–3 mm, 2-locular, sparsely to loosely furnished with appressed black hairs 0.05–0.15 mm.

- 3000–4000 m. Sichuan, Xizang, Yunnan.


奇异膨果豆 qi yi peng guo dou


Plants 5–10 cm tall, covered with appressed to subappressed, short, white hairs. Stems several, prostrate to ascending or erect, 2–10 cm, loosely to densely covered with hairs 0.05–0.2 mm. Leaves 2–3.5 cm, subsessile; stipules 1.5–3 mm, sparsely hairy; rachis hairy-like stem; leaflets in 3–9 pairs, 3–11 × 1–2 mm, abaxially loosely covered with appressed hairs 0.3–0.5 mm, adaxially glabrous or with a few hairs only, especially toward margins. Racemes 1–1.5 cm, 3–5-flowered; peduncle 1–3 cm, rather densely hairy like stem; bracts ca. 1 mm, hairy. Calyx 4–5.5 mm, loosely covered with appressed white hairs 0.2–0.4 mm; teeth 2–2.5 mm. Petals violet; standard transversely ovate, 8–10 × 9–12 mm; wings 7–9 mm; keel 7–9 mm. Legumes shortly stipitate, ca. 12 mm, ca. 3 mm high and ca. 5 mm wide, with a slender, slightly curved beak ca. 4 mm, 1-locular, loosely covered with appressed white hairs 0.2–0.3 mm.

- 3300–3800 m. Sichuan, Xizang.


乡城膨果豆 xiang cheng peng guo dou


Plants ca. 30 cm tall, with only white, appressed, flattened hairs 0.02–0.3 mm. Stems glabrous to sparsely hairy. Leaves 2–3.5 cm, subsessile or petiole 0.4–0.6 cm, like rachis loosely hairy; stipules 2–2.5 mm, sparsely hairy at margins; leaflets in 7–9 pairs, 4–9 × 1.5–4 mm, abaxially loosely hairy, adaxially glabrous. Racemes loosely 2–5-flowered; peduncle 2–4 cm, sparsely hairy to glabrous; bracts ca. 2 mm, sparsely hairy. Calyx ca. 5 mm, loosely covered with appressed hairs 0.3–0.5 mm; teeth 2–2.5 mm. Petals purplish; standard orbicular, ca. 9 × 7–8 mm; wings ca. 7 mm; keel 8–8.5 mm. Legumes subsessile, 8–13 mm, ca. 2 mm high and ca. 4 mm wide, with a straight beak ca. 2 mm, 1-locular, loosely covered with short, appressed, white hairs.

- Sichuan, Yunnan.

**Phyllolobium sichuanense** Podlech, Feddes Repert. 120: 56. 2009.

Plants ca. 15 cm tall. Stems 6–12 cm, branched at base, sparsely to loosely covered with appressed white and black hairs 0.2–0.3 mm. Leaves ca. 3 cm, subsessile; stipules 3–4 mm, free, subglabrous, sparsely ciliate; leaflets in 5–7 pairs, widely obovate, 5–9 × 3.3–6 mm, abaxially loosely covered with appressed hairs 0.4–0.5 mm, adaxially glabrous. Racemes short, 4- or 5-flowered; peduncle 2–3 cm, predominantly black hairy; bracts 1.5–2.2 mm, loosely hairy. Calyx 7–8 mm, loosely hairy; teeth 2–2.5 mm. Petals pink or purplish; standard transversely elliptic, ca. 10 × 10 mm; wings ca. 9 mm; keel ca. 8 mm. Legumes with a stipe ca. 3 mm, 25–30 mm, 4–5 mm high, with a beak 4–5 mm, 1-locular, loosely white hairy when young, soon glabrescent.


Plants covered with white hairs, in inflorescence with mostly blackish hairs. Stems 6–20 cm, prostrate to ascending or erect, loosely, in upper part rather densely covered with spreading or sometimes partly appressed white or white and brownish hairs 0.2–0.3 mm. Leaves 1–5 cm, subsessile; stipules (1.5–)2.5–4.5–(5.5) mm, lower ones triangular, often semiamplexicaul, upper ones narrowly triangular, all sparsely to loosely hairy; rachis loosely to rather densely hairy; leaflets in (3 or)4–9(or 10) pairs, 3–15 × 2–5 mm, abaxially to densely and adaxially sparsely to loosely covered with subappressed to ascending hairs up to 0.5 mm, or adaxially glabrous. Racemes short, (1 or)2–10-flowered; peduncle 1–6 cm, rather densely hairy; bracts 1.5–4–(5) mm, hairy. Bracteoles 0.5–2 mm or sometimes absent. Calyx (3–)4–6–(7) mm, loosely to rather densely hairy; teeth (1–)1.5–4 mm. Petals violet, purple, or pinkish; standard orbicular to transversely elliptic, 8–12 × 8–12 mm; wings 7–9 mm; keel 7.5–11 mm. Legumes with a stipe 2–2.5 mm, 9–17 mm, 5–6.5 mm high and wide, with a beak 1–2 mm, 1-locular, loosely to rather densely covered with short, spreading or appressed, white, or white and blackish or only blackish hairs.

Dry open scrub-covered and rocky slopes; 2700–5500 m. Gansu, Qinghai, Sichuan, Yunnan [India, Nepal, Pakistan].


Plants 18–50 cm tall, with only white, short, ± appressed hairs up to 0.3 mm. Stem erect, sparsely to loosely covered with hairs 0.05–0.2 mm. Leaves 3–5 cm, subsessile; stipules 2–4 mm; rachis sparsely hairy; leaflets in 3–5 pairs, 4–7 × 2–4 mm, abaxially loosely hairy, adaxially glabrous. Racemes loosely 2- or 3-flowered; peduncle 3–9 cm, glabrous or sparingly hairy like stem; bracts 1.5–2.2 mm, loosely hairy. Calyx 7–8 mm, loosely hairy; teeth 2–2.5 mm. Petals pink or purplish; standard transversely elliptic, ca. 10 × 10 mm; wings ca. 9 mm; keel ca. 8 mm. Legumes (unripe) with a stipe ca. 5 mm, at least 10 mm, ca. 3 mm high, compressed laterally, with a beak 2–2.5 mm; valves densely covered with appressed white hairs 0.1–0.2 mm.


Plants up to 30 cm tall, covered with only white hairs 0.02–0.3 mm. Stems 15–40 cm, diffuse to prostrate to ascending, in basal part glabrous, in upper part sparsely to loosely spreading hairy. Leaves 3–5.5 cm; stipules 3–4 mm, ciliate; petiole 0.3–1 cm, with rachis hairy like stem; leaflets in 5–7 pairs, 5–9 × 2.5–5 mm, abaxially loosely covered with tangled subappressed hairs, adaxially glabrous. Racemes 2–4-flowered; peduncle 3–7 cm, hairy like stem; bracts ca. 4 mm, ciliate. Bracteoles 0.3–1 mm. Calyx 8–10 mm, sparsely to loosely hairy; teeth 4.5–6 mm. Petals purple; standard orbicular, 15–19 × 10–13 mm; wings ca. 12 mm; keel 14–15 mm. Legumes 5–6 mm, densely covered with subappressed to ascending white hairs 0.5–0.8 mm and with black hairs 0.1–0.3 mm; teeth 2–3 mm. Petals purple-red, standard in middle with a white, purplish-striate spot; standard 15–16 × 11–12 mm, limb wider than long, with a claw ca. 4 mm; wings ca. 13 mm; keel 14–15 mm. Legumes (unripe) with a stipe ca. 5 mm, at least 10 mm, ca. 3 mm high, compressed laterally, with a beak 2–2.5 mm; valves densely covered with appressed white hairs 0.1–0.2 mm.
with a stipe ca. 5 mm, 25–30 mm, ca. 5 mm high and wide, with a slender beak, 2-locular, loosely hairy.

- 900–2100 m. Gansu, Sichuan.