Northwest A. & F. University, Institute of Botany, Yangling Ludwig-Maximilians-University Munich, Faculty of Biology, Systematic Botany and Mycology, Munich

L. R. Xu & D. PODLECH

Some new taxa of Astragalus L. (Leguminosae) from China and Nepal

Summary

During the work on the genus Astragalus for the Flora of China, some more new species could be found among the unnamed material from the herbaria of Beijing and Kunming. Furthermore a new section had to be described. They are described here: Sect. Poliothrix: A. blandulus, A. hysophilus, A. jumlaensis, A. montivagus, A. oreocharis, A. praeteritus, A. yutaniensis; Sect. Pseudosesbanella sect. nova: A. notabilis.

Introduction

During the work on the genus Astragalus for the Flora of China a lot of new species have been found and mostly described in former time. So the number of species increased from 278 in the Chinese version of the Flora (1993) to now 391. The species presented here are surely not the last new species, because parts of the country are undercollected and in the big herbaria of China is still a lot of unnamed material too.

Astragalus blandulus PODLECH & L.-R.XU, sp. nova (sect. Poliothrix)

Differt ab Astragalus tibeticola PODLECH & L.-R.XU in partibus vegetativis glabris (nec sparse ad laxe pilosis, stipulis 4–5 mm (nec 6–9 mm) longis, inferioribus a tergo caulis breviter connatis, ceteris inter se liberis (nec omnibus alte connatis), foliis 3,5–5 cm longis, subsessilibus (nec 6–12 cm longis, petiolo 1–3 cm longo suffultis), pedunculis glabris vel sparse pilis nigris ad 0,1 mm longis instructis (nec pilis albis nigrisque 0,4–0,7 mm longis obtectis,

Zusammenfassung

Einige neue Taxa von Astragalus L. (Leguminosae) aus China und Nepal

Im Verlauf der Bearbeitung der Gattung Astragalus für die englische Version der "Flora of China" wurden einige weitere neue Arten in dem unbestimmten Material der Herbarien von Peking und Kunming entdeckt. Auch eine neue Section der Gattung wurde gefunden. Sie werden hier beschrieben: Sect. Poliothrix: A. blandulus, A. hysophilus, A. jumlaensis, A. montivagus, A. oreocharis, A. praeteritus, A. yutaniensis; Sect. Pseudosesbanella sect. nova: A. notabilis.

calyce sparse pilis nigris ad 0.1 mm longis (nec densiuscule pilis nigris 0.2–0.3 mm longis et albis longioribus) obtecto, leguminibus unilocularibus, sutura ventrali tantum pilis paucis instructis vel glabris (nec incomplete bilocularibus, laxe albo-nigro-pilosis).

Typus: China, Xizang, South Tibet, near Gyangzê Xian, ca. 89°36′ E, 2°56′ N, 3400 m a.s.l., 17. 07. 1960, G.X.Fu 824 (holotypus PE).

Plants ca. 25 cm tall, in vegetative parts glabrous. Caudex with a pluricipital root-crown. Stems several, ca. 20 cm long, ascending, slightly branched near the base, striate-sulcate, near the base ca. 3 mm thick. Stipules green, 4–5 mm long, narrowly triangular to triangular, adnate to the petiole for ca. 1–2 mm, those of lower leaves shortly connate behind the stem, those of upper leaves free from each other. Leaves 3.5–5 cm long, subsessile. Leaflets in 9 (11) pairs, narrowly elliptic to elliptic, 4–12×2–5 mm, rounded to acute. Peduncles 1.5 (6 cm) long, glabrous or sparsely covered with black hairs up to 0.1 mm long. Racemes ovoid, densely many-flowered; axis sulcate,



white and black hairy. Bracts whitish, linearacute, 2 (3) mm long, very sparsely minutely black hairy. Pedicels 0.5-1 mm long, very sparsely black hairy. Calyx campanulate, 4.5 (5) mm long, obliquely cut at the mouth, sparsely covered with appressed black hairs up to 0.1 mm long; teeth subulate, 2 (2.5) mm long. Standard ca. 8 mm long; limb ca. 6.5 mm wide, emarginate, subabruptly contracted into the short, cuneate claw. Wings ca. 7 mm long; limbs elliptic, rounded, 4.5×2 mm; auricle wide, ca. 0.5 mm long, claw 2.5 mm long. Keel ca. 5.5 mm long; limbs triangular, with rectangularly curved lower edge and straight upper edge, rounded, 3.5×2.5 mm; auricle minute, claw ca. 2 mm long. Stamen-tube truncate at the mouth. Ovaries shortly stipitate, at the ventral side with some scattered white hairs, otherwise glabrous. Legumes sessile, obliquely ellipsoid, 4-5 mm long, ca. 2.5 mm high and wide, keeled ventrally, grooved dorsally, unilocular; valves glabrous or at the ventral suture with few white and black hairs. Seeds mostly two, 2.5-2 mm, blackish.

Specimens examined

Known only from the type material.

Astragalus hysophilus PODLECH & L.-R.XU, sp. nova (sect. *Poliothrix*)

Holotype: China, Xizang, near Miling, ca. 94° E, 29° N, 2900–3100 m a.s.l., 12. 09. 1974, Qinghai-Xizang Team 74-4673 (KUN).

Differt ab A. tibeticola PODLECH & L.R.XU caulibus pilis appressis ad partim ascendentibus et patentibus albis 0,2–0,4 mm longis (nec pilis appressis ad subappressis albis, ad nodis nigris quoque 0,4–0.7 mm longis) obtectis, stipulis 2,5–4 mm (nec 6–9 mm) longis, foliolis 5–10 × 2–4 mm, acutis ad subobtusis (nec 7–17 × 3–6 mm, rotundatis ad leviter emarginatis), pedunculis albo-pilosis, racemum versus pilis nigris perpaucis immixtis (nec racemum versus imprimis nigro-pilosis), bracteis 1–2 mm (nec 2,5–3 mm) longis, albo- vel imprimis albo-pilosis (nec imprimis nigro-pilosis), calyce ca. 3 mm longo, dentibus 1–1,5 mm longis (nec 4–5 mm longo, dentibus 1,5–2,5 mm longis).

Typus: China, Xizang, near Miling, ca. 94° E, 29° N, 2900–3100 m a.s.l., 12. 09. 1974, Qinghai-Xizang Team 74-4673 (holotypus KUN).

Plants ca. 20 cm tall, loosely caespitose. Caudex branched with slender, subterranean stolons. Stems several, 10-17 cm long, branched at the base, ascending to erect, sparsely to rather densely covered with appressed to subappressed or partly slightly ascending to spreading only white hairs 0.2-0.4 mm long, in basal part glabrescent. Stipules green, 2.5-4 mm long, ovate-acuminate to narrowly triangular, free from the petiole, behind the stem distinctly vaginate-connate, sparsely to loosely appressed to subappressed white hairy. Leaves 4–7 cm long; petiole 0.5–1.5 cm long, like the rachis hairy like the stem. Leaflets in 8-9 pairs, narrowly elliptic, $5-10 \times 2-4$ mm, acute to subobtuse, on upper side glabrous, on underside sparsely to rather densely covered with subappressed, tangled white hairs 0.5-0.8 mm long. Peduncles 5-6 cm long, slender, hairy like the stem but in upper part with very few black hairs mixed in. Racemes ovoid, rather loosely 10-12-flowered. Bracts whitish-membranous, narrowly triangular, 1-2 mm long, white or predominantly white hairy, at the base with subsessile glands. Pedicels 0.5-1 mm long, white and black hairy. Calyx campanulate, ca. 3 mm long, slightly obliquely cut at the mouth, loosely to rather densely covered with subappressed, tangled white hairs 0.3-0.5 mm long and with shorter, appressed black hairs; teeth subulate, 1-1.5 mm long. Petals whitish when dry. Standard ca. 7 mm long; limb widely obovate-orbicular, ca. 6 mm wide, emarginate, cuneate at the base without distinct claw. Wings ca. 6 mm long; limbs narrowly oblong, obtuse, 4 × 1.5 mm; auricle short, claw ca. 2 mm long. Keel ca. 5 mm long; limbs ca. 3 × 1.8 mm; claw ca. 2 mm long. Stamen-tube truncate at the mouth. Ovaries sessile, densely white hairy; style glabrous. Legumes sessile, obliquely ellipsoid, curved, 5-6 mm long, ca. 2 mm high and 1.5 mm wide, keeled ventrally, grooved dorsally, with a beak ca. 0.5 mm long, incompletely bilocular; valves rather densely covered with slightly ascending white hairs 0.2-0.3 mm long, with some black hairs mixed

Specimens examined

Known only from the type material.

Astragalus jumlaensis PODLECH, sp. nova (sect. Poliothrix)

Differt ab *A. sikkimensis* BUNGE caulibus dense pilis albis subappressis ad leviter ascendentibus 0.3–0.6 mm longis (nec sparse pilis albis nigrisque appressis 0.05–0.3(–0.4) longis) obtectis, rhachibus dense (nec sparse ad laxe) pilosis, foliolis supra laxe, subtus dense pilis 0.6–1 mm longis (nec supra glabris et subtus sparse ad laxe pilis 0.2–0.5 mm longis) obtectis.

Typus: Nepal, Bhurchula Lehh, near Jumla, 82°10′ E, 29°17′ N, 3820 m a.s.l., 11.07.1952, O.Polunin, W.R.Sykes & L.H.J.Williams 4526 (holotypus BM).

Plants covered at stems, rachides and peduncles with wide, distinctly flattened, ribbonlike hairs. Caudex with rather long, subterranean, branched stolons. Stems several, 8-16 cm long, slender, prostrate to ascending, flexuose to curved, densely covered with subappressed to slightly ascending white hairs 0.3-0.6 mm long. Stipules greenish, 2.5-4.5 mm long, very shortly adnate to the petiole, distinctly connate behind the stem, loosely hairy like the stem. Leaves 3–5 cm long; petiole 0.8–1.5 cm long, like the rachis densely hairy like the stem. Leaflets in 8–10 pairs, elliptic, $4-9 \times 2-4$ mm, obtuse to rounded, on upper side loosely, on underside densely covered with slender hairs 0.1-1 mm long. Peduncles 1-5 cm long, densely white and black hairy like the stem. Racemes ovoid, densely 6-13-flowered. Bracts whitish, ca. 2 mm long, narrowly ovate, acute, loosely white and black hairy. Pedicels ca. 1 mm long, densely black hairy. Calyx 5-6 mm long, campanulate, obliquely truncate at the mouth, densely covered with appressed black hairs 0.2-0.5 mm long; teeth subulate, all crowded at the abaxial (dorsal) side, somewhat unequal, 1-1.5 mm long, black hairy on inner side. Petals purple. Standard ca. 9 mm long; limb elliptic, ca. 4 mm wide, slightly emarginate, gradually narrowed into the short cuneate claw. Wings 8.5-9 mm long; limbs narrowly elliptic, obtuse, 4 × 1.5 mm; auricle ca. 0.5 mm long, claw 4-5 mm long. Keel 7-8 mm long; limbs obliquely elliptic, with widely curved lower edge and scarcely concave upper edge, rounded, $3.5-4 \times 12$ mm; auricle minute, claw ca. 4 mm long. Stamen-tube truncate at the mouth. Ovaries with a stipe ca.

2 mm long, white hairy; style glabrous. Legumes with a stipe 1–2 mm long, narrowly ellipsoid to ovoid, 5–10 mm long, 3–4 mm high, 3 mm wide, sharply keeled ventrally, grooved dorsally, triangular in cross section, abruptly contracted into a straight or bent beak 1–1.5 mm long, unilocular, valves thin, densely covered with bladdery hairs. Seeds mostly four in each locule, ca. 1.5 mm in long and wide, dark reddish brown, dull.

Specimens examined

Known only from the type material.

Astragalus montivagus PODLECH & L.-R.XU, sp. nova (sect. *Poliothrix*)

Differt ab *A. yunningensis* H.T.TsAI & T.T.YU plantis 7–20 cm, (nec 2–6 cm) altis, foliolis supra laxe pilosis (nec glabris vel sparse tantum pilosis), pedunculis 3–8 cm (nec 1.5–2.5 cm) longis, bracteis anguste triangularibus, ca. 1 mm longis (nec ovatis, ca. 0,5 mm longis), calicibus ca. 3 mm (nec 2–2.5 mm longis pilis imprimis albis 0.3–0.6 mm longis (nec pilis imprimis nigris 0.1–0.3 mm) obtectis, petalis in vivo pallide purpurea (nec albis, carina apice violacea), leguminibus unilocularibus (nec incomplete bilocularibus).

Typus: China, Xizang, Rutog Xian, 4200 m a.s.l., 79°41′ E, 33°21′ N, 03. 09. 1990, Y.FEI et al., Expedition to S.W. Tibet 699 (holotypus KUN).

Plants 7–20 cm tall, caespitose. Caudex with pluricipital root-crown. Stems numerous, 3-16 cm long, slender, loosely covered with subappressed white hairs 0.2-0.4 mm long. Stipules slightly greenish, 3-4 mm long, narrowly triangular, behind the stem connate up to the middle or higher up, subglabrous or sparsely hairy. Leaves 1.5–5.5 cm long; petiole 0.5-2 cm long with the rachis very slender, sulcate adaxially, loosely to rather densely hairy like the stem. Leaflets in 6-9 pairs, narrowly elliptic to obovate, $2-5 \times 0.8-2$ mm, obtuse, on upper loosely, on underside loosely to rather densely covered with subappressed white hairs 0.3-0.6 mm long. Peduncles 3-8 cm long, slender, sparsely white hairy like the stem, with some black hairs mixed in. Racemes rather densely 8-15-flowered. Bracts whitish, narrowly triangular, ca. 1 cm long, white ciliate at the margins, at the base mostly with some

sessile minute glands. Pedicels ca. 0.5 mm long, white hairy. Calyx campanulate, ca. 3 mm long, rather densely covered with subappressed white hairs 0.3-0.6 mm long, with shorter black hairs mixed in, especially towards the teeth; teeth subulate, unequal, the upper (adaxial) two ca. 0.7 mm long, the lower (abaxial) three ca. 1 mm long, densely white hairy on inner side. Petals light purple in life. Standard ca. 6–7 mm long, ca. 4–4.5 mm wide, rhombic-elliptic, emarginate, cuneately narrowed into the claw. Wings 6-6.5 mm long; limbs narrowly oblong, $4-4.5 \times 1.3$ mm; auricle ca. 0.5 mm long. Keel ca. 6 mm long; limbs obliquely elliptic, with widely curved lower edge and slightly concave upper edge, obtuse, 3.5×2 mm; auricle 0.3 mm long, claw ca. 2.5 mm long. Stamen-tube \pm truncate to slightly obliquely cut at the mouth. Ovaries with a slender stipe ca. 1 mm long, white and black hairy; style glabrous. Legumes with a stipe ca. 1 mm long, narrowly oblong, distinctly curved, ca. 4-5 mm long, 1.5 mm high and wide, keeled ventrally, flattened to shallowly groved dorsally, unilocular; valves loosely covered with appressed white and hairs ca. 0.3 mm long, sometimes with a few black hairs mixed in. Seeds ca. 4 mm.

Specimens examined

China, Xizang: S.W. Tibet, Ali Gezi, 4450 m a.s.l., viii. 1972. Li 004 (PE).

Astragalus oreocharis PODELCH & L.-R.XU, sp. nova (sect. Poliothrix)

Differt ab *A. leucocephalus* BENTH. plantis in inflorescentiis praecipe nigro-pilosis (nec mere albo-pilosis), caulibus pilis appressis ad partim ascendentibus et paulis patentibus, impexis, 0.5-1 mm longis (nec pilis patentibus 1-2 mm longis) obtectis, stipulis 8-12 mm (nec 4-8 mm) longis, petiolis 1-3 cm longis (nec foliis subsessilibus), foliolis 7-8-jugis (nec 10-20-jugis), $10-20\times 3-7$ mm (nec $2-9\times 0.8-4$ mm), calicybus pilis subappressis (necascendentibus ad patentibus) obtectis, petalis violaceis (nec pallide flavis).

Typus: China, Xizang; near Baxoi city, ca. 95°55′ E, 30°01′ N, 23. 06. 1980, C.C. NI et al. 0160 (holotypus PE).

Plants ca. 30 cm tall. Caudex slender, slightly branched. Stems few, erect, 15–20 cm

long, rather densely furnished with white, appressed to subappressed and partly ascending, sometimes curved, tangled hairs 0.5-1 mm long, with some spreading hairs mixed in, in upper part also with some black hairs. Stipules green, 8-12 mm shortly adnate to the petiole, behind the stem distinctly connate, rather densely to densely hairy like the stem. Leaves 7-10 cm long; petiole 1-3 cm long, with the rachis hairy like the stem. Leaflets in 7-8pairs, elliptic, obtuse to slightly retuse, 10–20 \times 3–7 mm, on upper side loosely, on underside more densely covered with subappressed to slightly ascending, partly curved, tangled hairs 0.8–1 mm long. Peduncles 6–10 cm long hairy like the stem. Racemes 4-5 cm long, loosely many-flowered. Bracts membranous, slightly greenish, narrowly triangular, 4-5 mm long, predominantly white hairy, at the margins with some minute glands. Pedicels ca. 1 mm long, black hairy. Calyx campanulate, ca. 5 mm long, densely covered with subappressed black hairs 0.2-0.5 mm long and white hairs up to 1 mm long; teeth narrowly triangular, 2-2.5 mm long, black hairy on inner side. Petals violet, partly even when dry. Standard ca. 9 mm long; limb 5.5 mm wide, elliptic, emarginate, cuneately narrowed on the base. Wings ca. 8 mm long; limbs narrowly oblong, obtuse, 5×2 mm; auricle ca. 1 mm long, claw ca. 3 mm long. Keel ca. 7 mm long; limbs obliquely elliptic, with widely curved lower edge and slightly concave upper edge, subobtuse, 4 × 2.5 mm; auricle ca. 3 mm long. Stamentube truncate at the mouth. Ovaries with a stipe ca. 1 mm long, white hairy; style glabrous. Legumes unknown.

Specimens examined

Known only from the type material.

Astragalus praeteritus PODLECH & L.-R.XU, sp. nova (sect. Poliothrix)

Differt ab *A. tibeticola* PODLECH & L.-R.XU stipulis 3-4 mm longis petiolo per 1 cm adnatis (nec 6-9 mm longis, a petiolo liberis), foliis 2-3 cm (nec 6-12 cm) longis, foliolis $4-7\times1.5-3$ mm (nec $7-17\times3-6$ mm), pedunculis 1,5-3 cm (nec 5-6 cm) longis, vexillo ca. $11\times5,5$ mm, elliptico (nec 6-7 mm, transverse elliptico), leguminibus unilocularibus (nec incomplete bilocularibus).

Typus: China, Xizang, Gongjao, 3600 mm a.s.l. 29. 06. 1991, J. S. YANG 91-479 (holotypus PE).

Plants ca. 10 cm tall, loosely caespitose. Caudex with short, branched, subterranean stolons. Stems several, 4-6 cm long, ascending, branched at the base, terete to angularsulcate, sparsely to loosely covered with appressed to subappressed white, at the nodes also black hairs, 0.1-0.4 mm long, partly glabrescent, especially at the base. Stipules green, 3-4 mm long, triangular to narrowly triangular, adnate to the petiole for ca. 1 mm, behind the stem high distinctly vaginate-connate, sparsely to loosely overed with subappressed white and black hairs. Leaves 2-3 cm long, subsessile or with a petiole up to 0.8 cm long; rachis deeply sulcate adaxially, sparsely to loosely covered with subappressed with hairs up to 0.3 mm long. Leaflets in 7–10 pairs, elliptic, $4-7 \times 1.5-3$ mm, rounded, on upper side glabrous, on underside at the midrib and margins loosely furnished with subappressed white hairs 0.5-0.8 mm long, otherwise glabrous or with scattered hairs only. Peduncles 1.5–3 mm long, angular-sulcate, hairy like the stem but in upper part with some black hairs mixed in. Racemes ovoid, rather densely ca. 10-flowered. Bracts whitish, narrowly triangular, ca. 2 mm long, white hairy. Pedicels ca. 0.5 mm long, sparsely white and blacky hairy. Calyx campanulate, ca. 4 mm long, sparsely covered with appressed black hairs 0.1-0.3 mm long, with some white hairs mixed in; teeth subulate, 1.5-2 mm long. Petals whitish yellow when dry. Standard ca. 11 mm long; limb ca. 5.5 mm wide, elliptic, slightly emarginate, gradually narrowed into the short claw. Wings ca. 8 mm long; limbs oblong, rounded, ca. 5×1.5 mm; auricle wide, ca. 0.8 mm long, claw ca. 3 mm long. Keel ca. 6.5 mm long; limbs obliquely elliptic-triangular, with widely curved lower edge and ± straight upper edges subobtuse ca. 3.8×2.5 mm; auricle ca. 0.5 mm long, claw 3 mm long. Stamen-tube truncate at the mouth. Ovaries with a stipe ca. 1 mm long, glabrous. Legumes subsessile, obliquely oblong, slightly curved, 4-5 mm long, ca. 1.8 mm high and wide, keeled ventrally, widely grooved dorsally, with a beak ca. 0.5 mm long, unilocular, valves glabrous. Seeds 2.2 × 1 mm, dark blackish brown.

Specimens examined

Known only from the type material.

Astragalus yutianensis PODLECH & L.-R.XU, sp. nova (sect. Poliothrix)

Differt ab A. tibeticola PODLECH & L.-R.XU caulibus foliolisque pilis perbrevibus 0.02-0.2 mm (nec 0.4-0.7 mm) longis instructis, stipulis 2-3 mm (nec 6-9 mm) longis, eis foliorum inferiorum tantum a tergo caulis connatae (nec omnibus alte connatae), foliis 3-4 cm (nec 6-12 cm) longis, foliolis 4-6-jugis (nec 9-11-jugis), $4-8 \times 1.5-3 \text{ mm}$ (nec $7-17 \times 3-6 \text{ mm}$), pedunculis 7-12 cm (nec 5-6 cm) longis, calyce 3-4 mm (nec 4-5 mm) longo, ovariis glabris (nec pilosis).

Typus: China. Xinjiang, northern slopes of Kuen-lun range, near Yutian [= Keria], 81°35′ E, 36°50′ N, 4150 m, 06. 07. 1988, B.S.Li 11832 (holotypus PE).

Plants ca. 25 cm tall. Caudex with a pluricipital root-crown and branched subterranean stolons. Stems several to many, ascending, up to 20 cm long, branched at the base, angularsulcate, sparsely to partly loosely covered with appressed to subappressed white, at the nodes also black hairs 0.02-0.2 mm long, with few black hairs mixed in. Stipules whitish to green, 2-3 mm long, ovate-acuminate to narrowly triangular, shortly adnate to the petiole, those of lower leaves behind the stem vaginateconnate, those of upper leaves free from each other, sparsely hairy or subglabrous. Leaves 3-4 cm long; petiole 0.5-1 cm long, slender, hairy like the stem. Leaflets in 4-6 pairs, narrowly elliptic to elliptic, $4-8 \times 1.5-3$ mm, obtuse, on upper side glabrous, on underside sparsely to loosely hairy like the stem. Peduncles 7-12 cm long, hairy like the stem but in upper part with increasing black hairs. Racemes ovoid, rather densely 7-15-flowered. Bracts whitish, narrowly ovate to narrowly triangular, 2-3 mm long, sparsely predominantly black hairy. Pedicels 0.5-1 mm long, black hairy. Calyx campanulate, 3-4 mm long, slightly obliquely cut at the mouth, loosely covered with appressed black hairs ca. 0.1 mm long; teeth narrowly triangular, 1–1.5 mm long, sparsely black hairy on inner side. Petals probably violet, whitish when dry. Standard ca. 7 mm long; limb 5 mm wide, widely elliptic, emarginate, with a short, cuneate claw. Wings ca. 6 mm long; limbs obovate-spathulate, widest near the widely rounded tip, 4×2.2 mm; auricle ca. 0.8 mm long, claw ca. 2 mm long. Keel 5 mm long; limbs oblique-elliptic, rounded, 3×2 mm; claw 2 mm long. Stamen-tube truncate at the mouth. Ovaries subsessile, glabrous. Legumes unknown.

Specimens examined

Known only from the type material.

Astragalus sect. Pseudosesbanella PODLECH, sect. nova

Plantae caulibus bene evolutis, prostratis ad erectis. Pili basifixi. Stipulae virides, a petiolo et inter se liberae. Bracteae persistentes. Bracteolae evolutae, minutae. Calyx campanulatus. Stigma pilosum. Legumina stipite distincto suffulta, arcte e latere compressa, unilocularia vel incomplete ad complete bilocularia.

Typus: Astragalus hoffmeisteri (KLOTZSCH) ALI.

Plants with well developed, prostrate to erect stems. Hairs basifixed. Stipules green, free. Bracts persistent. Bracteoles present, minute. Calyx campanulate. Petals all of nearly the same length. Stigma hairy. Legumes stipitate, distinctly to strongly compressed laterally, unilocular or incompletely to completely bilocular.

In describing Astragalus sect. Sesbanella BUNGE (1868) has cited four species: A. adesmiaefolius (= A. hoffmeisteri), A. falconeri, A. trichocarpus and A. sesbanioides (= A. trichocarpus). A. trichocarpus (incl. A. sesbanioides) clearly belongs to sect. Chlorostachys BUNGE, whereas the first two species belong to the section, which was called in Fl. SSSR sect. Sesbanella. PODLECH (1990) has choosen as lectotype for this section A. sesbanioides BENTH., therefore it is a synonym of sect. Chlorostachys. Therefore, the section to which A. falconeri and A. hoffmeisteri belong, has no name. It is described here as Astragalus sect. Pseudosesbanella. A section of hitherto three species: A. falconeri BUNGE, A. hoffmeisteri (KLOTZSCH) ALI and A. notabilis PODLECH, here described as a new species.

Astragalus notabilis PODLECH, sp. nova (sect. Pseudosesbanella)

Differt ab *A. hoffmeisteri* (KLOTZSCH) ALI caule prostrato, tenuissimo (nec erecto, 2–5 mm diametro), foliis 3–4 cm (nec 4–13 cm) longis, foliolis ca. 10–11-jugis [nec (10–)15–29(–22) jugis], apice rotundatum (nec retusis ad emarginatis), pedunculis 3–6 cm longis, post anthesin non elongatis (nec 6–12 cm longis post anthesin arcte elongatis), racemis 2–3 cm longis, post anthesis non elongatis, 3–5-floribus (nec 4–10 cm longis, post anthesin ad 22 cm elongatis, 5–20-floribus), leguminibus bilocularibus (nec fere unilocularibus).

Typus: Nepal, Mustang, Lower Puyun Khla between Yara and Dhi, 3450 m a.s.l., 83°59′ E, 29°06′ N, 15. 08. 2001, S. & G. MIEHE & K. KOCH 01-0-45-02 (holotypus MSB).

Plants very sparsely hairy, with appressed to subappressed white hairs 0.2-0.4 mm long. Stem ca. 65 cm long, slender, prostrate, in lower part branched, with flowering sidebranches up to 11 cm long, smooth, very sparsely hairy or partly subglabrous. Stipules green, 5-10 mm long, semicordate or obliquely ovate, at the base mostly auricule-like dilated, free, glabrous or partly very sparsely ciliate at the margins. Leaves 3-4 cm long, sessile to subsessile; rachis sparsely hairy. Leaflets in 10–11 pairs, elliptic to obovate, $3-6 \times 1-3$ mm, ± rounded, often minutely mucronulate, glabrous or on underside at midvein and margins sparsely hairy. Peduncles very slender, 3-6 cm long, not elongating after anthesis. Racemes 2-3 cm long, loosely 3-5-flowered, not elongated at fruiting time. Bracts whitish-membranous, linear to narrowly triangular, 2-3 mm long, ciliate at the margins. Pedicels ca. 1 mm long, sparsely hairy. Bracteoles ca. 1 mm long, linear, at the base of calyx. Calyx greenish, campanulate, 4–5 mm long, strongly obliquely cut at the mouth, glabrous; teeth unequal, triangular, 1.5-2,5 mm long. Petals probably pale yellow, partly pale lilac when dry, nearly all of same length. Standard ca. 13 mm long. Wings ca. 13 mm long; limbs narrowly oblong, subobtuse, ca. $8-9 \times 2$ mm; auricle ca. 1 mm long, claw ca. 4 mm long. Keel ca. 13 mm long; limbs obliquely elliptic, with widely, slightly curved lower edge and nearly straight upper edge, ca. 8 × 2.5 mm. Ovaries stiptate, glabrous; stigma densely hairy. Legumes with a stipe ca. 7 mm long, narrowly oblong, slightly to distinctly curved, acuminate at both ends, 18–20 mm long, 3.5–4 mm high, strongly compressed laterally, ca. 2 mm wide, sharply keeled ventrally, deeply grooved dorsally, bilocular; valves thin, greenish yellowish, glabrous. Seeds ca. 2 × 1.5 mm, dark brown.

Specimens examined

Known only from the type material.

References

BUNGE, A. 1868: Generis Astragali Species Gerontogeae. Pars 1: Claves diagnosticae. – Mém. Acad. Imp. Sci. Saint Pétersbourg 11(16): 140 p.

Flora Republicae Popularis Sinicae 1993: tomus **42**(1) Angiospermae, Dicotyledoneae, Leguminosae (4). – Science Press, Beijing.

Komarov, V. L. (ed.) 1946: Flora URSS, vol. 12. – Moskva, Leningrad.

Podlech, D. 1990: Die Typifizierung der altweltlichen Sektionen der Gattung *Astragalus* L. (Leguminosae). – Mitt. Bot. Staatssamml. München **29**: 461–494.

Adresses of the authors:

Prof. Dr. Lang-Ran Xu, Institute of Botany, Northwest A & F. University,

Yangling 712100, Shaanxi, The People's Republic of China

e-mail: lbwjf@163.com

Prof. Dr. Dietrich Podlech (corresponding Autor), Ludwig-Maximilians-University Munich, Faculty of Biology, Systematic Botany and Mycology, Munich, Menzinger Straße 67,

D-80638 München, Germany.

e-mail: podlech@lrz.uni-muenchen.de

Manuscript received: March 27th, 2006.