

## 青海黄芪属新分类群\*

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**摘 要** 青海黄芪属新分类群: 贵南黄芪 *Astragalus guinanicus*; 都兰黄芪 *Astragalus clulanensis*; 白花松潘黄芪 *Astragalus polyclandous*; 大花多枝黄芪 *Astragalus polyclaclus*; 长苞东俄洛黄芪 *Astragalus tongolensis*; 少毛格尔木黄芪 *Astragalus goluensis*; 多毛多花黄芪 *Astragalus floridus*; 白花丛生黄芪 *Astragalus confertus*  
**关键词** 黄芪属, 新分类群

## NEW TAXA OF THE GENUS ASTRAGALUS FROM QINGHAI

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**Key words** *Astragalus*; New taxa

### 1. 贵南黄芪 新种 图 1

*Astragalus guinanicus* Y. H. Wu, sp. nov.

Species nova affinis *A. mahoschanico* Hand - Mazz., sed foliis lineari - lanceolatis 20 - 30mm longis, pedunculis c. 20 mm longis, corollis purpureis, vexillis c. 10 mm longis, alis apice obtusis differt.

Suffrutex. Caules erecti 50 - 70cm alti, pilis nigris brevibus disperse vestiti. Folia 7 - 1 - cm longa, petiolis 4 - 6mm longis; stipulae liberae, triangulo - lanceolatae, c. 3 - 4mm longae, subtus pilis nigris vestitae; foliola 8 - juga, lineari - lanceolata, 20 - 30mm longa, 1 - 2.5mm lata, apice acuminata, basi cuneata, supra glabra, subtus pilis albis adpressis vestita. Pedunculi axillares foliis manifeste longiores, c. 20 mm longi, pilis nigris brevibus vestiti; inflorescentiae 28 - 32 cm longae, c. 25 - 50 - florum, laxae racemosae, ad rachidem pilis nigris densiuscule vestitae; bractae albae membranaceae, lanceolatae, 3 - 4mm longae, dorso pilis nigris

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vestitae; pedicelli c. 1 mm longi pilis nigris vestiti; calyces campanulati, 4 - 5mm longi, pilis nigris densiuscule obsiti, dentibus subulatis tubo subaequilongis; corollae purpureae; vexillum oblongo - obovatum c. 10mm longum, 5.5mm latum, apice obtusum vel emarginatum, basi sensim angustatum, alae oblongae 7 - 8mm longae, c. 2mm latae, apice obtusae, unguibus c. 2.5mm longis; carinae semiobovatae c. 5mm longae, 2mm latae, unguibus laminis subaequilongis; ovarium ellipticum pilosum vel glabrum, Legumen sphaericum, c. 4 mm diametro; semina reniformia c. 2 mm longa, 1.5 mm lata.

Qinghai: Guinan Xian (贵南县). alt. 3200m. 27, 1967. Li Bing - wen (李秉文) et Zhang He - zeng (张盍曾) 071, (Typus, HNWP).

亚灌木植物。茎直立,高 50—70cm,散生黑色并混有白色短柔毛。羽状复叶长 7—10cm,叶柄长 4—6mm;托叶离生,三角状披针形,长 3—4mm,外面被黑毛;小叶 17 枚,条状披针形,长 20—30mm,宽 1—2.5mm,先端渐尖,基部楔形,上面无毛,下面被白色伏。贴毛,几无小叶柄。总状花序长达 32cm,具 25—50 朵花,总花梗显著长于叶,长达 20cm,疏被黑色短柔毛;苞片披针形,白色膜质,长 2.3—4mm,外被黑柔毛;小花梗长约 1mm;花萼钟状,长 4—5mm,连同花序轴和小花梗被较密的黑色柔毛,萼齿钻状,与萼筒近等长;花冠蓝紫色;旗瓣长圆状倒卵形,长约 10mm,宽约 5.5mm,先端钝或不明显微凹,基部渐狭成爪;翼瓣长圆形,长 7—8mm,宽约 2mm,先端钝圆,爪长约 2.5mm,耳短;龙骨瓣半倒卵形;长约 5mm,宽约 2mm,爪与瓣片近等长;子房椭圆形,被毛或无毛。荚果圆球形,径约 4cm;种子肾形,长约 2mm,宽约 1.5mm,栗褐色。花期 6—7 月,果期 7—8 月。

本种同马街山黄芪 *A. mahoschanicus* Hand - Mazz. 相似,但小叶条状披针形,长达 30mm,总花梗长达 20cm,花冠紫色,旗瓣长约 10mm,翼瓣先端不裂可以区别。

## 2. 都兰黄芪 新种 图 2

*Astragalus dulanensis* Y. H. Wu, sp. nov.

Species nova affinis *A. petraeo* Kar. et Kir., sed foliis oblongis, vexillis c. 10mm longis laminis ovatis medio - inferne non constrictis, alis c. 10 mm longis unguibus c. 3.5mm longis, carinis c. 6.5mm longis unguibus c. 3.5mm longis differt.

Herba perennis. Radix subcrassa. Caules basi ramosi, erecti vel erecto - patenti, 10 - 20 cm alti, pilis canis versatilibus adpresse denseque vestiti. Folia 2 - 4 cm longa, petiolis 6 - 10mm longis, cum rachidibus pilis canis adpresse denseque vestitis; stipulae liberae, triangulo - lanceolatae, c. 3mm longae, subtus pilis canis vestitae; foliola 5 - 7 - juga, oblonga, 3 - 11 mm longa, 1.2 - 3mm lata, apice obtusa, basi rotundata vel late - cuneata margine saepe involuta, utrinque pilis canis versatilibus adpressis obsita. Racemi 4 - 6cm longi; pedunculi axillares foliis subaequilongi vel longiores pilis canis versatilibus adpresse vestiti; bracteae subulatae c. 2mm longae, pilis canis saepe nigrisque vestitae; bracteolae nullae; calyces tubiformes cumdentibus c. 6mm longi, extus pilis albis nigrisque dense vestiti, dentibus subulatis c. 2.5mm longis utrinque pilis obsitis; corollae purpureae, vexillum c. 10mm longum, 6mm latum, lamina ovata apice obtusa vel emarginata, basi sensim angustata; alae c. 10mm longae 1.8mm latae, laminis angusto - oblongis apice emarginatis, unguibus c. 3.5mm longis; carinae c. 6.5mm longae 2mm

latae, laminis semiobovatis, unguibus c. 3mm longis; ovarium oblongum subglabrum. Legumen ignotum.

Qinghai: Dulan Xian(都兰县). De - ling - ha (德令哈), alt. 3000m, 24V, 1974. Xizang Exp. 2981 ( Typus, NHWP).

多年生草本。根较粗壮。茎基部分枝,直立或斜升,高 10—20cm,密被灰白色伏贴丁字毛。羽状复叶长 2—4cm,叶柄长 6—10mm,与叶轴同被较密的灰白色丁字毛;托叶离生,三角状披针形,长约 3mm,外面被灰白色丁字毛;小叶 11—15 枚,长圆形,长 3—11mm,宽 1.2—3mm,先端钝圆,基部圆形或宽楔形,边缘常内卷,两面被灰白色丁字毛。总状花序长 4—6cm,生 8—12 花,腋生总花梗与叶等长或稍长,密被灰白色丁字毛;苞片钻状,长约 2mm,被白色或有时混有黑色毛,小苞片缺;花萼筒状,长约 6mm,外面密被黑白混生毛,萼片钻状,长约 2.5mm,两面均被毛;花冠紫色;旗瓣长约 10mm,宽约 6mm 瓣片卵形,先端不明显微凹,基部渐狭;翼瓣长约 10mm,宽约 1.8mm,瓣片狭长圆形,先端微缺,爪长约 3.5mm;龙骨瓣长约 6.5mm,宽约 2mm,瓣片半倒卵形,爪长约 3mm;子房长圆形,近无毛。荚果未见。本种同喜石黄芪 *A. petraeus* Kar. et Kir. 相近,但其小叶长圆形,旗瓣长约 10mm,中下部不缢缩,翼瓣长约 10mm,爪长约 3.5mm,龙骨瓣长约 6.5mm,爪长约 3mm 可以区别。

### 3. 白花松潘黄芪 新变型

*Astragalus sunpanensis* Pet. Stib. f. *albiflorus* Y. H. Wu, f. nov.

A typo recedit corollis albis, foliolis supra tantum prope margines pilis albis adpressis sparsim obsitis.

Qinghai: Xinghai Xian (兴海县), Heka(河卡), in pratis, alt. 3200m. Guo Ben - zhao (郭本兆) 19 , 1965, 6166 (Typus, HNWP).

本变型同原变型的区别在于:花冠白色,小叶上面仅在靠近边缘处散生少量白色伏贴柔毛。

### 4. 大花多枝黄芪 新变种

*Astragalus polycladus* Bur. et Franch. var. *magniflors* Y. H. Wu, var. nov.

A typo recedit floribus 10 - 11 mm longis, stipulis triangulis vel ovato - lanceolatis, foliolis oblongis vel obovatis c. 10mm longis 6mm latis, supra subglabris.

Qinghai: Tongde Xian (同德县), Xiu - ma (秀麻乡), Jiang - Qun (江群), in pratis. alt. 3190m. 17 , 1990, Wu Yu - hu (吴玉虎) 6895, (Typus, HNWP).

本变种同原变种的区别在于花长达 10—11mm;托叶三角形或卵状披针形;小叶长圆形或倒卵形,长可达 10mm,宽可达 6mm,上面几无毛。

### 5. 长苞东俄洛黄芪 新变种

*Astragalus tongolensis* Uibr. var. *longibracteatus* Y. H. Wu, var. nov.

A typo recedit bracteis filiformibus 10 - 13mm longis, calycibus 12mm longis, dentibus 3 - 5.5mm longis.

Qinghai: Nangqian Xian(囊谦县), alt. 3800 - 3900m. 31 , 1972, Tibet medicinal plant exp. 1221 (Typus, HNWP); Jiuzhi Xian(久治县), alt. 4100m. 3 , 1971, same exp. 580.

本变种同原变种的区别在于苞片线形,长达 10—13mm,花萼长达 12mm,萼齿长 3—5.5mm。

#### 6. 少毛格尔木黄芪 新变种

*Astragalus golmuensis* Y. C. Ho var. *paucipilus* Y. H. Wu, var. nov.

A typo recedit foliolis oblongis conduplicatis supra glabris, stipulis tantum margine pilosis, bracteis pilis nigris obsitis, corollis minoribus.

Qinghai: Maqin Xian (玛沁县), Youyun community (优云乡), alt. 4300m, 4, 1981, Maqin Exp. 1087 (Typus, HNWP).

本变种同原变种的区别在于小叶长圆形,对折,上面无毛;托叶仅沿边缘被毛;苞片被黑毛;花冠较小。

#### 7. 多毛多花黄芪 新变种

*Astragalus floridus* Benth. var. *multipilus* Y. H. Wu, var. nov.

A typo recedit foliolis oblongis utrinque pilis albis adpressis obsitis, caule pilis albis dense vestito, bracteis linearibus 6 - 8mm longis, pedicellis tantum c. 3 mm longis.

Qinghai: Yushu Xian (玉树县) Jiang Xi - Gou (江西沟), alt. 4000m, 30, 1971, Guo Ben - zhao (郭本兆) 8403 (Typus, HNEP).

本变种同原变种的区别在于小叶长圆形,两面被白色柔毛;茎上密被白色开展的柔毛;苞片长 6—8mm,线形;小花梗长仅 3mm。

#### 8. 白花丛生黄芪 新变型

*Astragalus confertus* Benth. ex Bunge f. *albiflorus* R. F. Huang et Y. H. Wu, f. nov.

(*Astragalus conterus* var. *albiflorus* R. F. Huang in sched.)

A typo recedit corollis albis, foliolis 1.6 - 1.9mm longis.

Qinghai: Yushu (玉树), Hoh Xil (可可西里), in alpine pratis, alt. 4800m. 5, 1990, Wu Su - gong (武素功) et Huang Rong - fu (黄荣福) K - 953 (Typus, HNWP); 25, 1990, K - 856.

本变型同原变型的区别在于花冠为白色,小叶小,长 1.6—1.9mm。

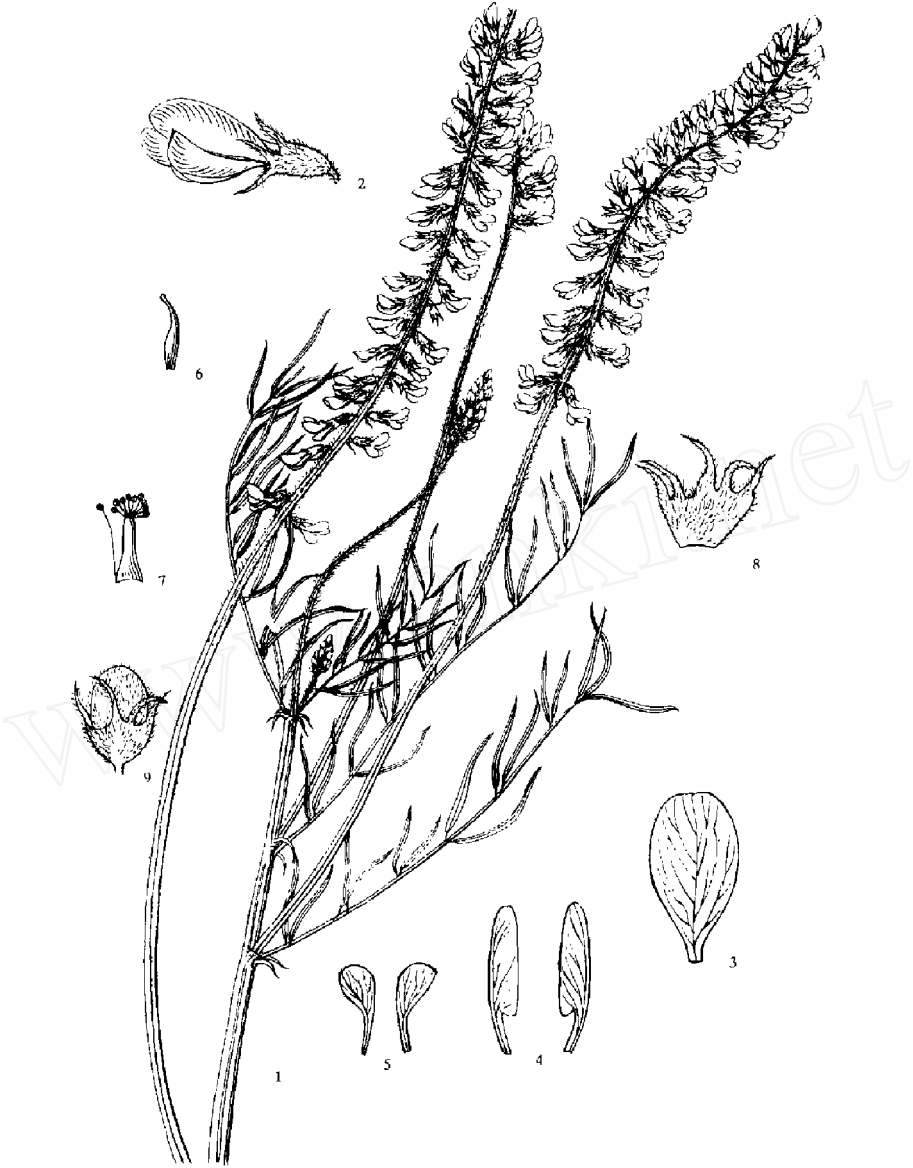


图1 贵南黄芪 (*Artragalus guinanicus*)

1. 植物中、上部 ×1 2. 花萼 ×4 3. 旗瓣 ×4 4. 翼瓣 ×4 5. 龙骨瓣 ×4 6. 子房 ×4 7. 雄蕊 ×4 8. 萼片 ×4 9. 果实 ×4  
 1. middle and up part of the plant ( ×1) 2. flower ( ×4) 3. standard ( ×4) 4. wing ( ×4) 5. keel ( ×4) 6. ovary ( ×4) 7. stamen ( ×4) 8. calyx ( ×4) 9. fruit ( ×4)

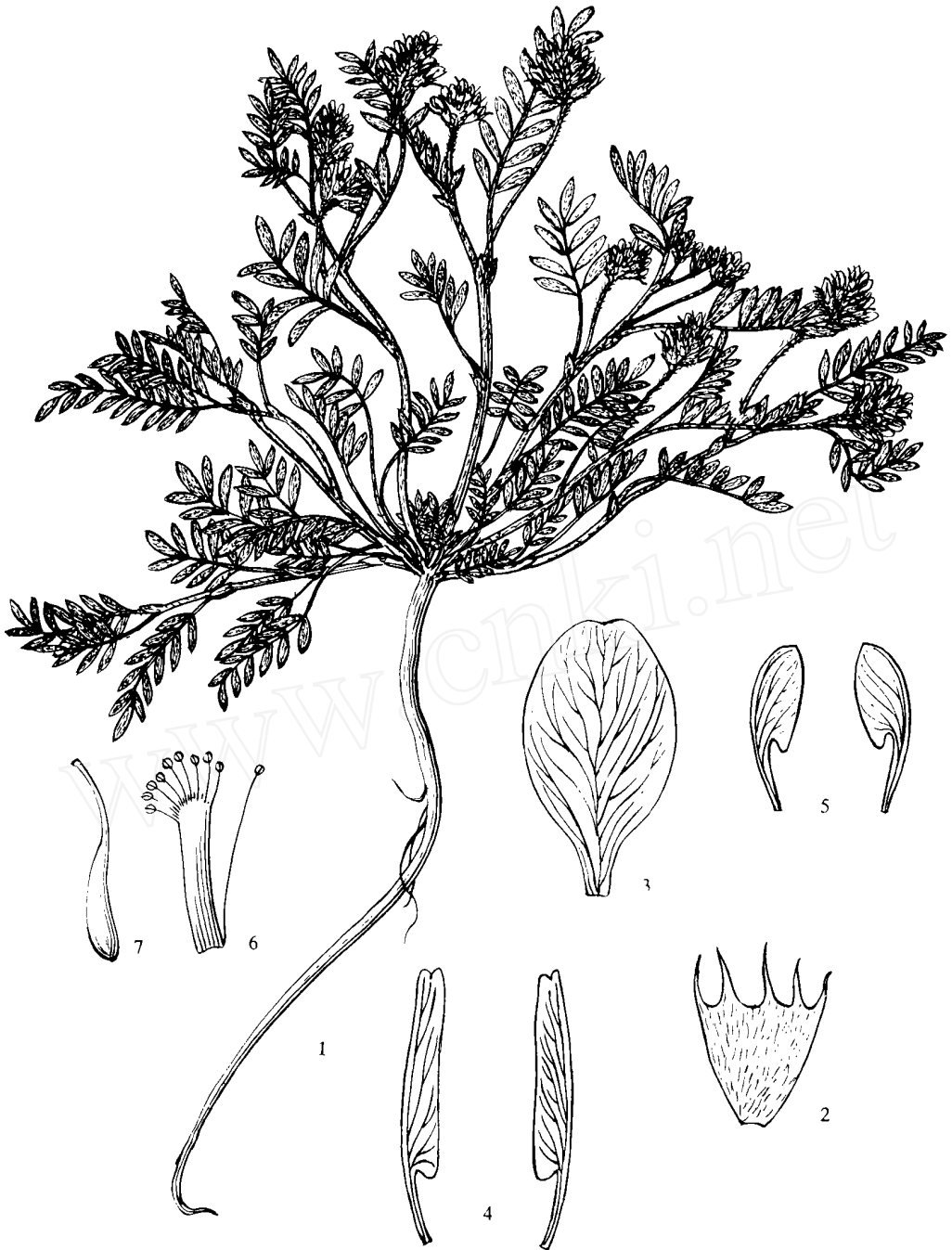


图 2 都兰黄芪 (*Astragalus dulanensis* Sp nov.)

1. 植株  $\times 1$  2. 花萼  $\times 5$  3. 旗瓣  $\times 5$  4. 翼瓣  $\times 5$  5. 龙骨瓣  $\times 5$  6. 雄蕊  $\times 5$  7. 雌蕊  $\times 5$

1. the plant (1) 2. flower ( $\times 5$ ) 3. standard ( $\times 5$ ) 4. wing ( $\times 5$ ) 5. keel ( $\times 5$ ) 6. stamen ( $\times 5$ ) 7. pistil ( $\times 5$ )