

菊科新资料

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Novelties of Asteraceae

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Abstract Seven new taxa, including one new section, three new species and three new varieties, are described; one new name, *Ligularia pojarkovana* S. W. Liu et T. N. Ho, and one new combination, *Ligularia liatroides* (C. Winkl.) Hand.-Mazz. var. *shifangensis* (G. H. Chen et W. J. Zhang) S. W. Liu et T. N. Ho are made; five species are mentioned as new records. The seven new taxa are *Youngia* sect. *Cyanoglossa* S. W. Liu et T. N. Ho, *Youngia zhenduoi* S. W. Liu et T. N. Ho, *Y. cyanea* S. W. Liu et T. N. Ho, *Mulgedium qinghaicum* S. W. Liu et T. N. Ho, *Cremanthodium campanulatum* (Franch.) Diels var. *flavidum* S. W. Liu et T. N. Ho, *Ligularia amplexicaulis* DC. var. *nepalensis* S. W. Liu et T. N. Ho, and *L. paradoxa* Hand. Mazz. var. *palmatifida* S. W. Liu et T. N. Ho.

Key words Asteraceae; New taxa; New records; Revision

摘要 记述了菊科 6 个属的一些新分类群和新分布,包含 1 个新组、3 个新种、3 个新变种、1 个新名称、1 个新组合和 5 个种的新记录。这些新分类群是黄鹌菜属蓝舌组、振荡黄鹌菜、蓝花黄鹌菜、青海乳苣、黄苞垂头菊、尼泊尔橐吾和半裂橐吾。

关键词 菊科;新分类群;新记录;订正

1 黄鹌菜属 *Youngia* Cass.

本属约 40 种,主产我国西南山地。主要特征是舌状花黄色;瘦果纺锤形,稍扁压,具多数不等形纵肋,无喙。但我们的两个新种舌状花深蓝色,瘦果的主肋 4 条,果体全部被白色小刺毛,在本属中极为特殊,为此建立了一个新组——蓝舌组。

1.1 蓝舌组 新组

Youngia sect. *Cyanoglossa* S. W. Liu et T. N. Ho, sect. nov.

Herba perennis. Flosculi ligulati cyanei. Achenium ipsum omnino minute albo-setulosum, erostatum; costae 4.

Type: *Youngia cyanea* S. W. Liu et T. N. Ho

2 species, endemic to Qinghai Province.

多年生草本。舌状花深蓝色。瘦果全部被白色小刺毛,无喙;主肋 4。

组模式:蓝花黄鹌菜

两种,特产中国青海。

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1.1.1 振铎黄鹌菜 新种 图 1: 1~3

Youngia zhenduoi S. W. Liu et T. N. Ho, sp. nov. Fig. 1: 1~3

Inter *Youngias* flosculis ligulatis cyaneis excellens. Species *Y. cyanae* S. W. Liu et T. N. Ho affinis, sed caule glabro, foliis ellipticis usque lanceolatis differt.

Herba perennis, circa 30 cm alta. Rhizoma breve, radices carnosas emittens. Caules erecti, glabri, fasciculati, e basi ramosi. Folia basilaria et inferiora caulina numerosa, petiolata, petiolis 1.5~2.5 cm longis, anguste alatis; laminae elliptico-lanceolatae usque lanceolatae, 2.5~6 cm longae, 3~8 mm latae, utrinque glabrae, apice longe acuminatae vel raro acutae, basi attenuatae in petiolos alatos, margine integrae vel raro lobatae, lobis terminalibus hastato-lanceolatis, lateralibus 1-jugis, triangulato-dentatis, circa 2 mm latis; illa supera et media caulina lineari-lanceolata usque subulata, bracteiformia. Calathia numerosa, in paniculato-racemos laxos disposita, ramis cum 1~3 calathiis cymosis; pedunculi aequilongi, glabri; involucri anguste cylindricum, 7~8 mm longum, 1.5~2 mm latum, basi 1-bracteolatum; involucri phyllaria circa 4-seriata; illa extima minima, ovata, circa 1 mm longa; illa mediana oblonga vel lanceolata, 2.5~4 mm longa, circa 1 mm lata, apice acuta; illa intima anguste lanceolata vel oblonga, 7~8 mm longa, 1~1.2 mm lata, apice obtusa, nigro-purpurea, dorso glabra, margine anguste membranacea. Flosculi ligulati 5~7; ligulae cyanae, oblongae, 5~6 mm longae, apice 5-denticulatae, tubo 1.5~2 mm longo, glabro. Achenia fusiformia, compressa, flavido-rufa, breve albo-setulosa, apice contracta erostrata; costae laterales 2, medianae 1 vel 2. Pappi setae albae, 4~5 mm longae.

China. Qinghai (青海): Yushu (玉树), Jiangxigou (江西沟), Xialaxiu (下拉秀), on moist slopes, alt. 3600 m, 1980-09, Z. D. Wei 22222 (holotype, here designated, HNWP).

多年生草本,全株光滑,高约30 cm。根状茎粗短,具多数肉质根。茎直立,丛生,自基部起分枝。基生叶多数,具柄,柄长1.5~2.5 cm,具狭翅;叶片椭圆状披针形至披针形,长2.5~6 cm,宽3~8 mm,先端长渐尖,稀急尖,基部渐狭成翅柄,两面无毛,中脉明显,全缘或有时缺刻状分裂,顶裂片戟状披针形,侧裂片1对,齿状三角形,长约2 mm;茎中上部叶疏离,线状披针形至钻形,全缘,苞片状,其它一如基生叶。头状花序多数,从茎下部起排成疏离的圆锥状总状式复花序,花序分枝具1~3头状花序呈聚伞状;总花序梗近等长,光滑;总苞狭圆柱形,长7~8 mm,宽1.5~2 mm,基部常具1个小外苞片;总苞片4层,最外层短小,卵形,长约1 mm,先端急尖;中层长圆形或披针形,长2.5~4 mm,宽约1 mm,先端急尖;最内层狭披针形或长圆形,长7~8 mm,宽1~1.2 mm,先端钝,黑紫色,无附片,背部无毛,边缘狭膜质。舌状花5~7,深蓝色,舌片长圆形,长5~6 mm,先端5-齿裂,管部长1.5~2 mm。瘦果狭纺锤形,长约4 mm,略压扁,淡黄红色,顶端收缢,具4条主肋,边肋2,稍粗,每面具1或2中肋,间肋不明显,无喙,果体全部被指向上方的白色短刺毛。冠毛白色,长4~5 mm。

本种的舌状花深蓝色在该属中非常特殊。它与蓝花黄鹌菜相近,但茎无毛,叶椭圆形至披针形而不同。

本种以魏振铎教授的名字为种加词,纪念他多年来为青海植物区系研究所做的杰出贡献。

1.1.2 蓝花黄鹌菜 新种 图 1: 4~6

Youngia cyanea S. W. Liu et T. N. Ho, sp. nov. Fig. 1: 4~6

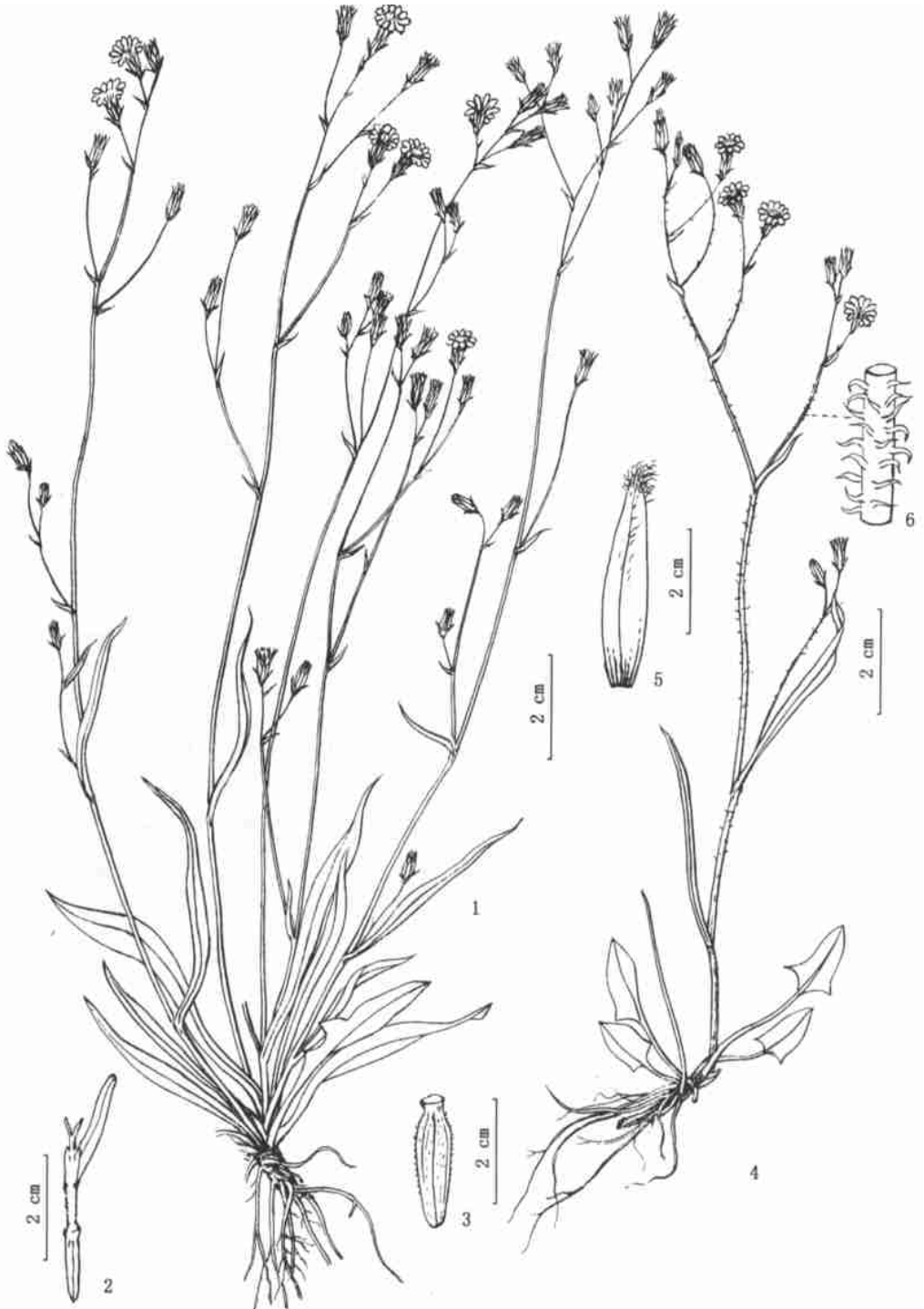


图1 1~3. 振铎黄鹌菜 1. 植株; 2. 舌状花; 3. 果实; 4~6. 蓝花黄鹌菜 4. 植株; 5. 总苞片; 6. 茎及毛。
 Fig. 1 1~3. *Youngia zhenduoi* S. W. Liu et T. N. Ho 1. Plant; 2. Ligulate floret; 3. Achene. 4~6. *Youngia cyanea* S. W. Liu et T. N. Ho 4. Plant; 5. Involucral bract; 6. Stem and hairs.

Habitu *Youngiae piliferae* Shih similis, sed caule albo-hamato-pilifero, foliis utrinque glabris, flosculis ligulatis cyaneis differt.

Herba perennis, 15~22 cm alta. Rhizoma breve, radices carnosas emittens. Caulis erectus, simplex, albo-hamato-pilifer, supra medium ramosus. Folia basilaria petiolata, petiolis tenuibus 1.3~3 cm longis, margine albo-hamato-piliferis; laminae ovato-sagittatae vel ovatae, 1~1.8 cm longae, 6~8 mm latae, apice acutae vel obtusae, integrae, basi sagittatae, truncatae vel rotundatae, utrinque glabrae; illa inferiora et media caulina elliptico-ovata, lanceolata vel anguste lanceolata, 1.8~2.2 cm longa, 3~7 mm lata, integra, basi cuneata vel attenuata, utrinque glabra, petiolis 1.7~2.8 cm longis; illa superna caulina lineari-lanceolata, bracteiformia. Calathia 5~10, in corymbos laxos vel paniculato-corymbos disposita; pedunculi albo-hamato-piliferi; involucri anguste cylindricum, 6~7 mm longum, circa 1.5 mm latum; involucri phyllaria circa 4-seriata; illa extima minora, ovata, 1~2 mm longa, circa 1 mm lata; illa mediana oblonga vel lanceolata, 2.5~4 mm longa, circa 1 mm lata, apice acuta; illa intima oblonga, 6~7 mm longa, 1~1.5 mm lata, apice nigro-purpurea, albo-hamato-pilifera, dorso glabra. Flosculi ligulati 4~6; ligulae cyaneae, oblongae, 4~5 mm longae, circa 1 mm latae, apice 5-denticulatae, tubo circa 2 mm longo, glabro. Achenia (immatura) fusiformia, compressa, flavido-rufa, breve albo-setulosa, apice contracta erostrata; costae laterales 2, medianae 1 vel 2. Pappi setae albae, 4~5 mm longae.

China. Qinghai (青海): Yushu (玉树), Jiangxigou (江西沟), Jianga (江达), river banks, alt. 3700 m, 1980-07-22, Z. D. Wei 21708 (holotype, here designated, HNWP).

多年生草本,高 15~22 cm。根状茎短,具肉质根。茎直立,单生,被白色钩状毛,上部分枝。基生叶具柄,柄较细,长 1.3~3 cm,边缘被毛,基部略膨大;叶片卵状箭形或卵形,长 1~1.8 cm,宽 6~8 mm,先端急尖或钝,全缘,基部箭形,平截至圆形,两面无毛;茎中下部叶椭圆状卵形、披针形或狭披针形,叶片长 1.8~2.2 cm,宽 3~7 mm,全缘,基部宽楔形或渐狭,两面无毛,叶柄长 1.7~2.8 cm;茎上部叶线状披针形,苞叶状。头状花序 5~10,在茎端排成疏伞房状或近似圆锥状伞房花序;花序分枝和花序梗被白色钩状毛;总苞圆柱状,长 6~7 mm,宽约 1.5 mm;总苞片约 4 层,最外 2 层短小,卵形,长 1~2 mm,宽约 1 mm,中层长圆形或披针形,长 2.5~4 mm,宽约 1 mm,最内层长圆形,长 6~7 mm,宽 1~1.5 mm,先端黑紫色,被白色柔毛和钩状毛,背部无毛,边缘狭膜质。舌状花深蓝色,4~6,舌片长圆形,长 4~5 mm,宽约 1 mm,先端 5 齿裂,管部长约 2 mm。瘦果(未熟)淡黄红色,狭纺锤形,长约 4 mm,边肋 2,稍粗,每面具 1 或 2 中肋,间肋不明显,无喙,果体全部被白色指向上方的小刺毛。冠毛白色,长 4~5 mm。

本种的体态与糙毛黄鹌菜十分相似,但舌状花深蓝色,茎及花序分枝被白色钩状毛,叶两面无毛而不同。

2 乳苣属 *Mulgedium* Cass.

2.1 青海乳苣 新种 图 2: 1~5

Mulgedium qinghaicum S. W. Liu et T. N. Ho, sp. nov. Fig. 2: 1~5

Species nova *M. monocephalo* (Chang) Shih similis, sed foliis integris vel dentatis, caule surperne et involucri longe cinereo-purpureo-pilosis differt.

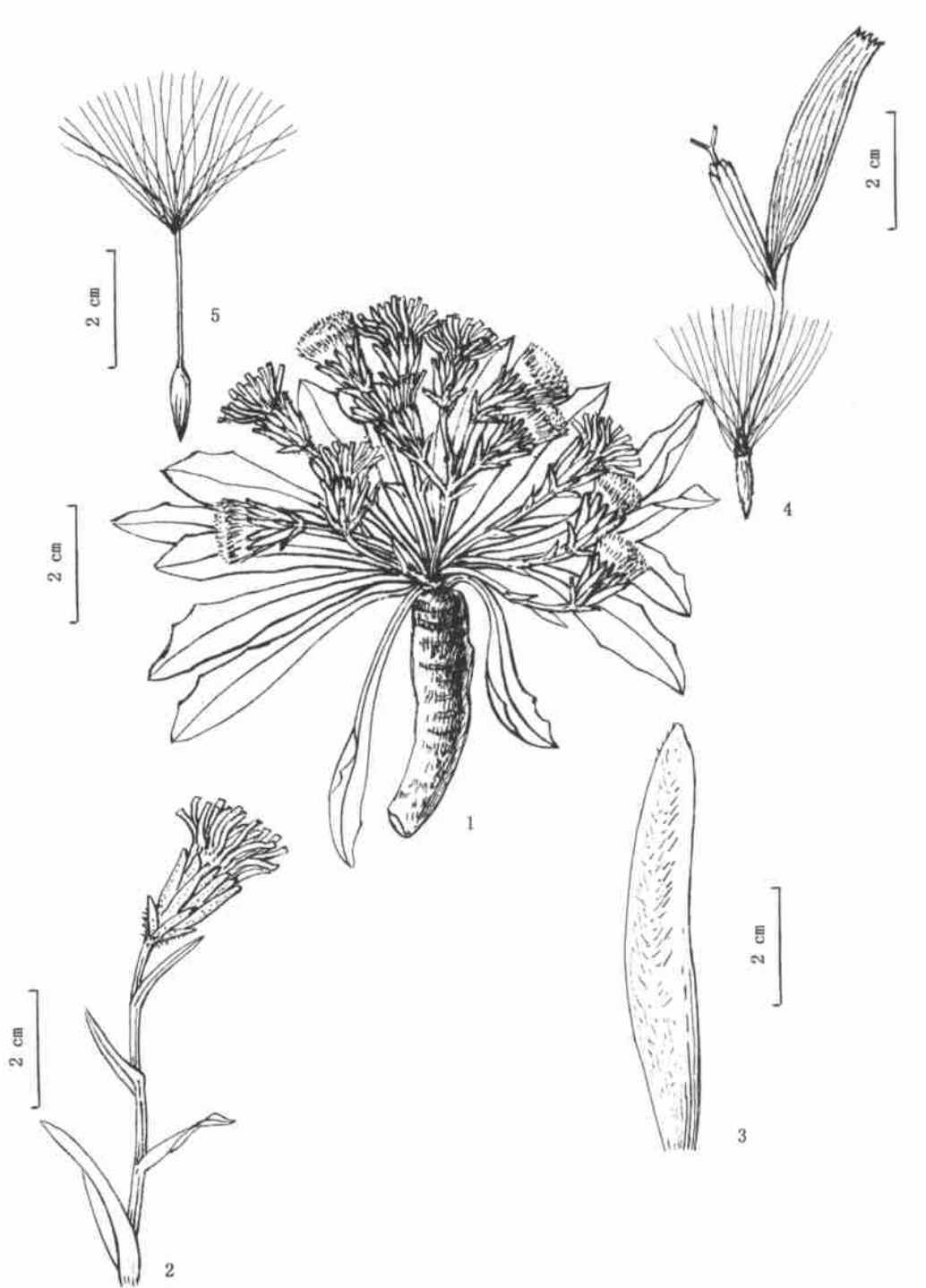


图2 1~5. 青海乳苣 1. 植株; 2. 花茎; 3. 总苞片; 4. 舌状花; 5. 果实。

Fig. 2 1~5. *Mulgedium qinghaicum* S. W. Liu et T. N. Ho 1. Plant; 2. Flowering stem; 3. Involucral bract; 4. Ligulate floret; 5. Achene.

Herba perennis, circa 4 cm alta. Radix carnosae, circa 7 mm diam. Caules 9, aequilongi, fasciculati, erecti, simplices, superne longe cinereo-purpureo-pilosi. Folia basilaria rosulata, petiolata, petiolis alatis, 1 ~ 1.5 cm longis, basi dilatatis, amplexicaulibus; laminae ellipticae vel oblongae, 1.5 ~ 2 cm longae, 4 ~ 10 mm latae, apice acutae, integrae vel denticulatae, basi cunetae, attenuatae in petiolo, utrinque glabrae, costa crassa; illa caulina 4 ~ 5, ovato-lanceolata usque subulata, bracteiformia, 5 ~ 20 mm longa, apice acuminata, integra, basi rotundata, semiamplexicaulia, utrinque glabra. Calathia circa 12, solitaria atque 4 in cymas ad apicem caulis centralis disposita; involucri campanulatum, 9 ~ 12 mm longum, 5 ~ 6 mm latum; involucri phyllaria 4 ~ 5-seriata, lanceolata, 1.5 ~ 2 mm lata, apice obtusa vel acuta, dorso longe cinereo-purpureo-pilosa; illa extima medianaque minora, longitudine 1/2 ~ 1/3 intimis breviora; illa intima 9 ~ 12 mm longa, margine anguste membranacea. Flosculi ligulati circa 20, coeruleo-purpurei; ligulae oblongae, 7 ~ 9 mm longae, circa 1.5 mm latae, apice 5-denticulatae, tubo 3 ~ 4 mm longo, glabro. Achenia (immatura) fusiformia, compressa, utrinque attenuata, ipsa circa 2 mm longa, rostro usque 4 mm longo. Pappi setae albae, 2-seriatae, 5 ~ 6 mm longae, longitudine tubum corollae aequantes.

China. Qinghai (青海): Hualong (化隆), in poplar forests, alt. 2600 m, 1988-09-18, S. W. Liu 3536b (holotype, here designated, HNWP).

多年生草本, 高约 4 cm。主根肉质, 径约 7 mm。茎 9 条, 等高, 丛生, 具多数苞片状叶, 上部被灰紫色有节长柔毛。基生叶莲座状, 具翅状柄, 柄长 1 ~ 1.5 cm, 基部扩大, 鞘状抱茎; 叶片椭圆形或长圆形, 长 15 ~ 20 mm, 宽 4 ~ 10 mm, 先端急尖, 全缘或具小尖齿, 基部楔形, 渐狭成柄, 两面无毛, 中脉较粗; 茎生叶 4 ~ 5, 苞片状, 卵状披针形至钻形, 长 5 ~ 20 mm, 先端渐尖, 全缘, 基部近圆形, 半抱茎。头状花序 12 个, 单生茎顶和 4 个在中央的茎上成聚伞状排列; 总苞钟形, 长 9 ~ 12 mm, 宽 5 ~ 6 mm; 总苞片 4 ~ 5 层, 披针形, 宽 1.5 ~ 2 mm, 先端钝或急尖, 背部被灰紫色有节长柔毛, 外层和中层稍短或较短, 长为内层的 1/2 ~ 2/3, 内层较长, 边缘狭膜质。舌状花约 20 个, 蓝紫色, 舌片长圆形, 长 7 ~ 9 mm, 宽约 1.5 mm, 先端具 5 齿, 管部长 3 ~ 4 mm, 光滑。瘦果 (未熟) 纺锤形, 两端渐狭, 果体长约 2 mm, 喙长达 4 mm。冠毛白色, 2 层, 长 5 ~ 6 mm, 与花冠管部等长。

新种与单头乳苣相近, 但叶全缘或有小齿, 茎上部及总苞被灰紫色有节长柔毛而不同。

3 垂头菊属 *Cremanthodium* Benth.

3.1 黄苞垂头菊 新变种

Cremanthodium campanulatum (Franch.) Diels var. **flavidum** S. W. Liu et T. N. Ho, var. nov.

A var. *campanulato* differt involucri phyllariis albis vel flavidis, longe albo-pilosis.

China. Sichuan (四川): Muli (木里), in gravel zone on high mountains, alt. 4450-4460 m, 1929-06, Rock 17919 (holotype, here designated, GH); the same locality and habitat, 1929-09, Rock 18130 (GH); the same locality, alt. 4830 m, 1932-10, Rock 24470 (GH).

与原变种的区别是总苞片淡黄色或白色, 被白色有节长毛。

4 橐吾属 *Ligularia* Cass.

4.1 尼泊尔橐吾 新变种

Ligularia amplexicaulis DC. var. **nepalensis** S. W. Liu et T. N. Ho, var. nov.

A var. *amplexicauli* caule superne breve flavido-brunneo-piloso, foliis ovato-cordatis, 7 ~ 13 cm longis, 5 ~ 9.5 cm latis, ala petioli circa 5 mm lata, dentata, involucris anguste campanulatis 6 ~ 7 mm longis, 3 ~ 4 mm latis, ligulis 10 ~ 12 mm longis, usque 2 mm latis differt.

C. Nepal: Bagma Zone (28 15 N, 85 10 E), alt. 4000 m, 1994-08-04, F. Miyamoto & K. Rajbhandari 94-20157 (holotype, GH!).

与原变种的区别是茎上部被淡黄褐色有节短柔毛;叶卵状心形,长 7 ~ 13 cm,宽 5 ~ 9 cm;叶柄的翅宽约 5 mm,具齿;总苞狭钟形,长 6 ~ 7 mm,宽 3 ~ 4 mm;舌状花的舌片长 10 ~ 12 mm,宽至 2 mm。

4.2 半裂橐吾 新变种

Ligularia paradoxa Hand.-Mazz. var. **palmatifida** S. W. Liu et T. N. Ho, var. nov

A var. *paradoxa* differt foliis palmatifidis, lobis circa 17, 1.5 ~ 3 cm latis, lobatis vel dentatis.

China. Yunnan (云南): Zhongdian (中甸), Habaxueshan (哈巴雪山), on grassy slopes, alt. ca. 4000 m, 1939-08-23, K. M. Feng 2154 (holotype, GH!).

与原变种的区别是叶掌状半裂,裂片约 17 个,宽 1.5 ~ 3 cm,再浅裂或具齿。

4.3 箭叶橐吾

Ligularia sagitta (Maxim.) Mattf. ex Rehder et Kobuski.

E. Himalaya, Gyong, 4330 m, 1912-09-12, R. Lepcha 187 (GH).

本种分布于中国西藏(东北部)、四川、青海、甘肃、宁夏、陕西、河北、内蒙古。据 R. Lepcha 记载, Gyong 属东喜马拉雅。然而在西藏仲巴县也有一条河叫 Gyang-qu, 为马泉河的支流,与 Gyong 同音,它们是否为同名,尚需考证。如是,则西藏的西南部(仲巴)也有分布。

4.4 总状橐吾

Ligularia botryodes (C. Winkl.) Hand.-Mazz.

Nepal: Pura, 4000 m, 1954-07-27, Stainton, Sykes & Williams 7411 (GH), new record.

现知本种分布于中国四川、甘肃。尼泊尔为新分布。

4.5 紫花橐吾

Ligularia dux (C. B. Clarke) Ling

Myanmar. N Tama Bum, F. Kingdon-Ward 21643 (GH), new record.

现知本种分布于中国西藏东南部和印度东北部。缅甸为新分布。

4.6 舟叶橐吾

Ligularia cymbulifera (W. W. Smith) Hand.-Mazz.

E. Himalaya, 4660 m, R. Lepcha 196 (GH), new record.

China. Xizang (西藏): Phari (亚东,帕里), 4666 m. 1916-09-20, G. H. Cave s. n. (GH), new record.

现知本种分布于中国云南西北部和四川西南部至西部。西藏和东喜马拉雅地区为新分布。

4.7 垂头橐吾

Ligularia cremanthodioides Hand.-Mazz.

Nepal. Darjiling, G. Ghose & Co s. n. (GH), new record.

E. Himalaya: Bokta, 4300 m. 1919-09-01, G. H. Cave s. n. (GH), new record.

China. Xizang (西藏): Yadong (亚东), Kalaeree, 5300 m. R. Lepcha 430 (GH), new record.

据现有记载本种产中国西藏东部(朗县)和云南西北部。中国西藏南部(亚东),尼泊尔和东喜马拉雅山地区为新分布。

Kalaeree (卡拉里)是一个小地名,据一些植物志记载,其位置在春丕(Chumbi),即中国西藏亚东县境内。但在康马县另有一个地名卡拉(Kala),为亚东至江孜必经之路,两个地名是否是同一个,还需查证。

4.8 远东橐吾 新名称

Ligularia pojarkovana S. W. Liu et T. N. Ho, nom. nov.

Ligularia longipes Bjark. in Fl. URSS 26: 816, 890. 1961, non Chang in Acta Phytotax. Sin. 1: 319. 1951.

Russia. Siberia orient., Amur.

4.9 什邡缘毛橐吾 新组合

Ligularia liatroides (C. Winkl.) Hand.-Mazz. var. **shifangensis** (G. H. Chen et W. J. Zhang) S. W. Liu et T. N. Ho, comb. nov.

Ligularia shifangensis G. H. Chen et W. J. Zhang in Acta Phytotax. Sin. 35(2): 181. Fig. 1. 1997.

China. Sichuan (四川): Shifang (什邡), alt. 3200-3650 m, 1997-07-18, Huang Mao-shou 79-813 (holotype, CDC).

与原变种的不同是叶及总苞被黄褐色有节短毛。

5 千里光属 *Senecio* L.

5.1 北美千里光

Senecio websteri Greenman in Bot. Gaz. 53: 511. 1912. TYPE: The United States of America, on talus slopes of Mt. Angeles, Callam County, Washington, alt. 2000 m, 1909-09-02, E. B. Webster 109 (MO).

Ligularia websteri (Greenman) W. A. Weber, in Phytologia 51(6): 374. 1982, syn. nov.

The United States of America: Washington, F. G. Meyer 1095, 1238 (MO); W. Thompson 5163, 7461, 7962, 9904, 10075, 11024, 14197 (MO); E. B. Webster 109 (MO).

见到了密苏里植物园标本馆收藏的模式标本及模式产地的9号标本。多年生草本,叶无鞘,头状花序常单生,总苞基部有多数小外苞片,总苞片多数,1层,线状披针形,先端渐尖,花柱分枝顶端截形,有毛。此类结构是典型的千里光属的特征。

另外,据记载北美还有 *Ligularia poterii* (Greenman) W. A. Weber 和 *Ligularia bigelovii* (Gray) W. A. Weber 可能也是千里光属植物,因为我们见过的美洲千里光属及近缘属的植物标本,其体态与橐吾属完全不同。但未见标本,故在此不加更改。

6 碱菀属 *Tripolium* Ness.

6.1 碱菀

Tripolium vulgare Ness. Gen. et Sp. Aster. 152. 1833; Y Ling et Y. L. Chen in Fl. Reip. Pop. Sin. 74: 282. pl. 71, figs. 1~3. 1985.

China. Qinghai (青海): Gonghe (共和), Qugou (曲沟, 黄河支流, 龙羊峡水库), on saline-alkali-lands of river banks, stream banks, scrubs, alt. 2500 m, 1996-09-18, HBG (ho Ting-nong, B. Bartholomew & M. G. Gberlt) 3091 (HNWP), new record.

本种分布于我国西北、华北、东北、华东;亚洲、欧洲、北美洲和非洲北部也有。碱菀在青海是首次发现,为青海植物区系增添了一个新记录的单种属。该种显系多年生草本,有较粗的主根。生于河滩盐碱地者丛生状,矮小,高4~10 cm,生于水边者也矮小,但叶和头状花序发育正常,生于河岸灌丛中者高达40 cm,上部有分枝,其它性状一如志书所载。此种在青海的分布极为局限,迄今在其它相同环境的地区尚未采到。显然是青藏高原隆升后的残遗种,表明它的分布区在退化,处于灭绝的边缘。

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