

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* *flosculus* *ligulatis* *cyaneis* *excellens*. Species *Y. cyaneae* 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 cyaneae, 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. Involucre 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), Jiangda (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;总苞细圆柱状,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 superne et involucri longe cinereo-purpureo-pilosis differt.