

多年生草本,干时变黑,高 5—7 厘米,多毛。侧根多条,线形而细或稍稍增粗,长约 4 厘米,径 1—2 毫米,顶端宿存去年枯叶,其枯叶多连叶片宿存,亦常有去年枯茎宿存,再加当年生多数基叶乃成为极密之丛。茎 3—5 条,不分枝,相当粗壮,具稜沟,沿稜有锈色多细胞毛组成的密毛线,他处亦生疏毛,基部被有长 4—5 毫米的宽卵形膜质鳞片。叶全部基生,柄长 2—3 厘米,膜质,扁平,沿中肋有宽翅,宽约 2 毫米,沿缘密被长毛,他处几无毛,叶片长 1—1.5 厘米,宽 5—6 毫米,卵状长圆形或长卵形,草质,两面均有锈色疏毛,下面杂有糠枇状及白色肤屑状物,羽状全裂,裂片每边 5—6 枚,宽卵形,互相接近,边缘有反卷的细圆齿。花序顶生,亚头状,花 3—5 朵,密聚;苞片约与萼等长,柄短而变宽,上部深 3 裂,裂片有少数羽裂;花梗短,长约 2—3 毫米,被毛;萼圆筒状钟形,厚膜质,长约 7 毫米,前方不开裂,被长毛,脉不规则,主脉约 5 条,由许多细脉组成,宽而不很凸起,次脉 6—7 条,较细,更有多数纵行的细网脉,齿 5 枚,长约 5 毫米,为管的一半弱,不等,下部三角形,中部稍狭细成柄状,端绿色而厚,多 3 裂,齿常反卷;花冠紫红色,盔的地平部分色较深,长 12—15 毫米,花管伸直,稍过于萼,端略扩大,盔直立部分前缘约高 4 毫米,几以直角向前转折成为含有雄蕊的部分,惟转角处多少镰状,后者长约 5 毫米,前方多少急狭为 1 圆柱形的喙,额部多少凸起,喙长约 5 毫米,伸直而稍稍偏指下方,端斜截形,微有齿,下唇长约 10 毫米,有长缘毛,侧裂斜椭圆形,中裂仅侧裂的半大,宽卵形,大部向前凸出,基部迭置于侧裂之下;雄蕊着生于花管中部,前方 1 对花丝有疏毛;子房长卵形,长约 4 毫米,柱头伸出于喙端。

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269. 季川馬先蒿

Pedicularis yui Li, in Proc. Acad. Nat. Sci. Philad. CI (1949) 102, f. 167.

季川馬先蒿季川变种 图版 LXX, 1—4

Pedicularis yui Li var. *yui*

二年生?,干时变为黑色,低矮,高约 6—7 厘米,近于无毛。根茎纤细,斜入地中或多少水平伸展,多节,节上常有膜质三角形鳞片,不定根少,或 3—5 条,长达 3 厘米,丝状或稍稍肉质增粗。茎常单条,有时仅长 1.5 厘米,直立不分枝,纤细,几无毛,基部有多数膜质披针形鳞片,亦有去年的枯叶柄宿存,但不成大丛。叶互生,全部基出,柄长 1.5—3 厘米,扁平,沿中肋有狭翅,边缘有疏长毛,叶片长卵形至卵状长圆形,厚

图版 LXX 1—4. 季川馬先蒿季川变种 *Pedicularis yui* Li var. *yui*, 1. 植株×1; 2. 花×3; 3. 花萼×3; 4. 下唇×3. 5—7. 宿叶馬先蒿 *P. tenacifolia* Tsoong, 5. 植株×1; 6. 花×3; 7. 花萼×3. (绘图人刘春荣)

termixtis vestita, pinnatisecta, segmentis utrinsecus 5—6, late ovatis, contiguis, margine minute dentatis dentibus reflexis. Inflorescentia terminalis, subcapitata; floribus 3—5, dense congestis; bracteae circiter dentibus calycis aequilongae, petiolis brevibus dilatatis suffultae, sursum alte trilobatae, lobis plus minus pinnatifidis; pedicellis brevibus, circ. 2—3 mm. longis, pilosis; calyx cylindrico-campanulatus, crasse membranaceus, circ. 7 mm. longus, antice non fissus, longe pilosus, nervis irregularibus circiter 5, sat latis sed vix elevatis, nervis secundariis 6—7, paulo tenuioribus, venis laxe reticulatis, calicis dentibus 5, inaequalibus, longitudine circ. dimidium tubi aequantibus, inferne triangularibus, medio angustatis stipiformibus, apice herbaceo-incrassatis viridibus saepe trilobatis, denticulatis, dentibus reflexis; corolla purpureo-rubra, galea intensius colorata, 12—15 mm. longa, tubus rectus, calycem paulo excedens, apice leviter dilatatus, galea margine antica circ. 4 mm. alta, apice fere angulo recto in partem antherigeram circ. 5 mm. longam subfalcato-geniculata, antice in rostrum cylindricum fere 5 mm. longum rectum apice oblique truncatum leviter denticulatum subito producta, fronte plus minus elevata, labium inferum circ. 10 mm. longum, longe ciliatum, lobis lateralibus oblique ellipticis, lobo medio eis dimidio minore, late ovato, valde producto; stamina ad medium tubi inserta, filamentis anticis sparse pilosis; ovarium anguste ovoideum, circ. 4 mm. longum, stylo ex apice rostri exserto.

Tibet: Chamdo Region, "Chianang, Langong, 14,500' (Ludlow, Sherriff et Taylor 3959), June 4, 1938", (type).

269. **Pedicularis yui** Li var. **ciliata** Tsoong, var. nov.

A var. *yui* recedit labio infero ciliato, filamentis anticis pilosis.

Yunnan: Upper Kiukiang Valley, Clulung, S. of Lungtsahmuru, alt. 4,000 m., alpine grassland (T. T. Yu 19863), Aug. 10 1938 (var. type).

276. **Pedicularis forrestiana** Bonati subsp. **flabellifera** Tsoong, subsp. nov.

A subsp. *forrestiana* differt multo elatior, racemis usque ad 20 cm. elongatis, floribus sparsis, bracteis longe petiolatis flabelliformibus.

Yunnan: "Kari Pass, Mekong-Yangtze Divide, open situation amongst heavy grass and scrub (G. Forrest 13130)." (subsp. type).

285. **Pedicularis tapaoensis** Tsoong, in MS. H. Smith: *Plantae Sinenses*, Scrophular. (1950). (Ser. Albiflorae)

Evidenter *P. taylorianae* m. valde accedens, galea imo apicem partis verticalis versus biauriculata, rostroque apice oblique truncato quasi eroso-denticulato differt.

Perennis, ad 6 cm. alta, siccitate nunquam nigrescens. Rhizoma breve, radices cylindricas graciles 5 cm. longas emittens, collo caulibus petiolisque vetustioribus et squamis ovatis usque lanceolatis membranaceis nonnullis praedito. Caules caespitosi, brevissimi, 1 cm. alti vel vix evoluti. Folia basalia et caulinarum dense caespitosa, petiolis 8—22 mm. longis, tenuibus et complanatis, utrinsecus late membranaceo-alatis, glabris; lamina elliptico-ovata usque oblonga, circ. 1 cm. longa, 4.5—7 mm. lata, pinnatisecta, rhachide anguste alata, lobis 4—6-jugatis, ovatis, basi angustatis, iterum pinnatilobatis vel grosse serratis, serratulis longe cuspidatis, utrinque glabra,