

短毛,再向前即渐細为长 5—5.5 毫米稍稍向下弓曲的喙,喙端显作 2 裂,下唇长 9 毫米,寬 14 毫米,基部心脏形,有緣毛,中裂为横置的肾脏形,寬达 7.5 毫米,基部两侧耳形而后渐狭为寬柄,柄长 2 毫米,侧裂稍較大,为不整齐的纵置肾脏形;雄蕊花絲有毛,前密后少。花期 6 月。

为我国特有种,产西藏昌都专区西南部(塔布地区,兰貢),生于空曠的湿草坡中。

285. 大砲馬先蒿 图版 LXXIV, 4—6

Pedicularis tapaoensis Tsong, in MS. Harry Smith: *Plantae Sinenses*, Scrophular. (1950), ined. ?, et in *Addenda*, 417.

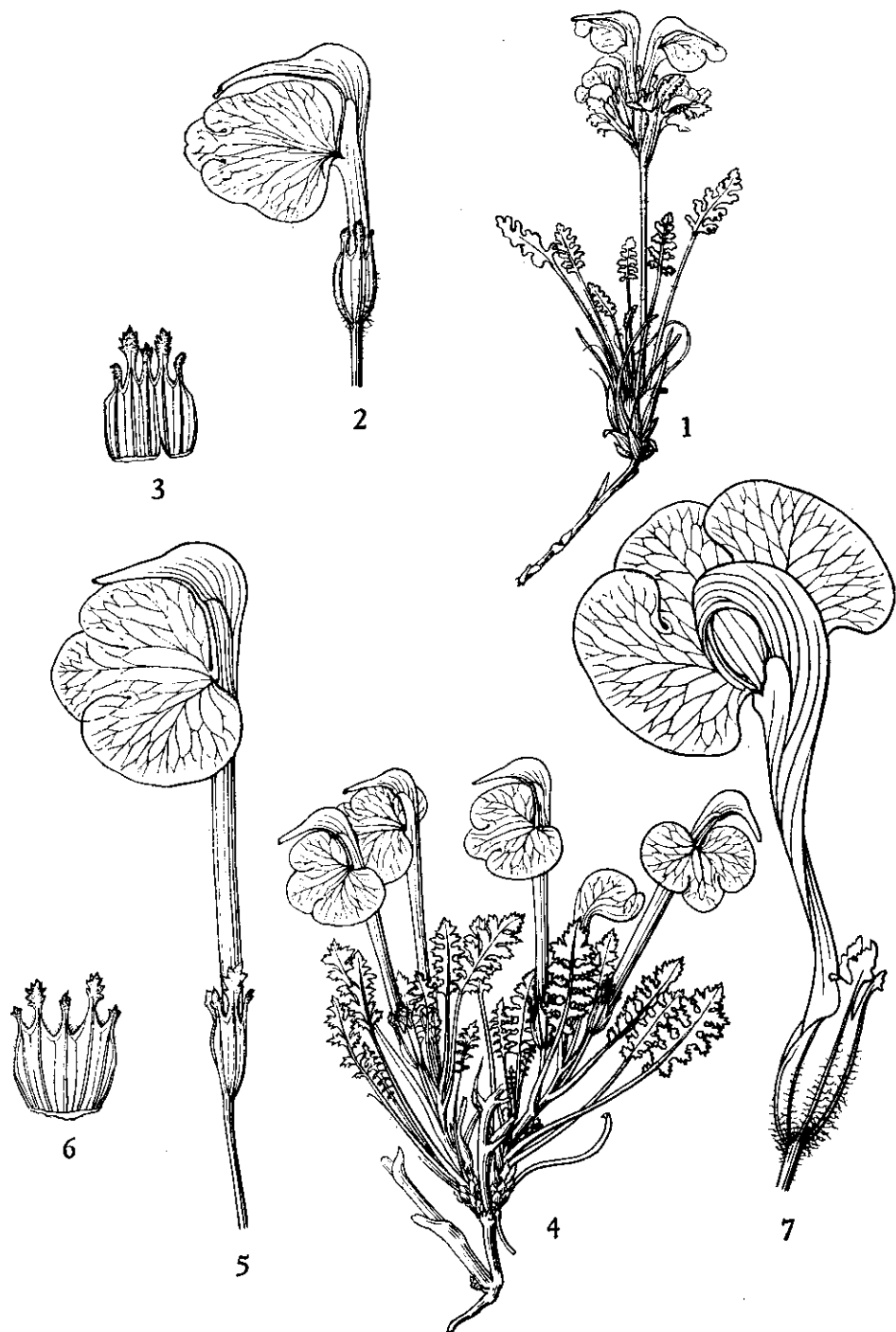
多年生草本,高达 6 厘米,干时不变黑色。根茎短,下方发出丛根,圓柱形而細,长达 5 厘米,根頸被有枯死的老茎与叶柄,及若干卵形至披針形膜質鱗片。茎丛生,极短,长几不及 1 厘米或几无有。叶基生与茎生集成密丛,叶柄长 8—22 毫米,薄而扁平,两侧有寬翅,无毛;叶片橢圓状卵形至长圓形,两面无毛,下面网脉清晰,长约 1 厘米左右,寬 4.5—7 毫米,羽状全裂,軸有狭翅,裂片 4—6 对,卵形,基部狭,自身亦为羽状开裂或有粗锯齿,齿有长刺尖。花有梗,梗有时直接从基叶腋中发出,有时則从短茎的叶腋中发出,在后一情况中有时与茎叶均亚对生,长达 1 厘米,黑色有微毛;萼圓筒状钟形,几无毛,边有緣毛,管长 5 毫米,前方开裂至 1/3 以上,薄膜質透明,主脉 5 条,細而清晰,次脉数不定,約 6—7 条,在近萼齿处有极疏网脉,齿 5 枚,后方 1 枚中大,前侧两枚最小,后侧两枚最大,均自三角形膜質基部向上渐細,除后侧两枚叶状膨大有粗锯齿外其余几不膨大,仅略有細齿;花冠紫紅色,管长 25 毫米,外面有疏毛,盔直立部分前緣約高 5 毫米,在近端处两边各有耳状凸起 1 枚,端約以 45° 角轉向前上方成为很粗壯的含有雄蕊部分,长达 5 毫米,寬达 3.5 毫米,額斜下而稍稍凸起,前方多少驟細成为轉指向前方或稍偏下方的直喙,喙长约 4 毫米,端斜截形,微微开裂;雄蕊花絲两对均有毛,前方 1 对較密。

为我国特有种,产四川西部(康定大砲山),生于海拔 4,700 米的空曠高山草地中。

系 100 魏氏系——*Ser. Wilsoniae* Li, in *Proc. Acad. Nat. Sci. Philad.* CI (1949) 181.

分 种 检 索 表

- 1(2) 叶深羽裂;萼具 3 齿;花冠全部帶紅色;喙长约 2 毫米..... 286. 魏氏馬先蒿 *P. wilsonii* Bonati
- 2(1) 叶有波状浅裂;萼具 2 齿;花冠盔部紫色,下唇黃色,喙长 4—5 毫米, S 形..... 287. 二色馬先蒿 *P. bicolor* Diels



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,

subtus manifeste reticulata. Flores pedicellati, pedicellis haud raro basalibus, vel ex axillis foliorum caulinarium, ubi ut illa saepe dissite oppositis, ad 1 cm. longis, nigrescentibus et leviter pubescentibus; calyx cylindrico-campanulatus, fere glaber, margine ciliatus, tubo 5 mm. longo, antice ultra $1/3$ fissus, tenuiter membranaceo hyalino, nervis primariis 5, gracilibus sed distinctis, nervis intercostalibus 6—7, prope dentes calycis laxissime reticulatus, dentibus 5, postico-lateralibus maximis, antereo-lateralibus minimis, omnibus e basi deltoidea membranacea sursum attenuatis, postico-lateralibus apice foliaceo-expansis exceptis non dilatatis, serratulis minutis tantum praeditis; corolla purpureo-rubra, tubus 25 mm. longus, extus laxe pubescens, galea margine antica circ. 5 mm. alta, prope apicem utrinsecus auriculis parvis munita, apice circ. angulo 45° in partem antherigeram validam 5 mm. longam 3.5 mm. latam inflexa, fronte oblique attenuata sed leviter elevata, antice plus minus subito in rostrum rectum 4 mm. ca. longum apice truncatum leviter lobatum angustata; staminum filamentis omnibus, anterioribus densius, barbatis.

Szechuan (Sikang): "Kangting Distr., Ta-pao-shan in prato alpino aperto, ca. 4700 m.s.m. (H. Smith 11460), VIII, 22, 1934", (typus).

288. **Pedicularis neolatituba** Tsoong, sp. nov. in MS. H. Smith: *Plantae Sinenses*, *Scrophular.* (1950). (Ser. *Neolatitubae*)

Species habitu proprio *P. mycophilae* Marq. et Shaw aemulens, sed calyce antice profunde fissus valdeque ventricosus *P. franchetianae* Maxim. et *P. mussoti* Franch. simillimo, a utraque tubo corollae multo magis elongato galeaque ad apicem partis verticalis valde contorto excellens. Ab omnibus speciebus longitubis et imprimis contortigaleatis habitu peculiare petiolis elongatissimis primo aspectu distinguenda.

Perennis, humilis, vix ultra 10 cm. alta, siccitate plus minus nigrescens, habitu illo *P. mycophilae* simillima. Rhizoma breve, radículas paulo carnosas emittens. Caules saepe vix evoluti vel plus minus elongati ad 2—4 cm. longi, debiles, flexuosi, glabri vel fere laeves. Folia plerumque basalia, longe petiolata, petiolis ad 23 mm. longis, ut costa laminae pilis patentibus longis multicellularibus demum deciduis vestitis; lamina lanceolato-oblonga usque anguste lanceolata, 10—20 mm. longa, 3.5—7 mm. lata, pinnatisecta, segmentis utrinsecus 6—8, ovatis usque oblongis, margine duplicato-serrata, serratulis saepe reflexis, folia caulinarum saepe quasi opposita, paulo minora, petiolis basi saepe membranaceo-dilatatis, ad 15 mm. longis, pilosis. Flores singulus axillares vel nonnulli quasi oppositi, vel etiam ob pedicellos elongatos ad 4 cm. longos intense coloratos glandulosos ex axillis foliorum basaliū; calyx 7—9 mm. longus, tubus antice ad $3/4$ fissus, fissura valde dilatata, nervis primariis 3, vix bene evolutis, iis secundariis multis, superne anastomosantibus, calycis dentes 3, postico minore subulato, reliquis medio stipitato-angustatis, superne deltoideis, fere aequaliter trilobatis, lobis lobulato-dentatis, margine valde reflexis; corolla purpureo-rubra, tubus elongatus, 5 cm. longus, 0.7 mm. diam., extus pilis brevibus dilute purpureis patentibus praeditus, galea parte verticali brevis, 2 mm. supra basin circinnate incurva margine antica auriculata, parte antherigera circ. 4 mm. longa, 2.5 mm. lata, antice in rostrum tenue 6—7 mm. longum apice leviter bilobum sensim