

而軟弱,多少弯曲,下部中部均有分枝。叶 3—4 枚輪生,基出者早枯,茎生者有短柄,柄长 0.5 厘米;叶片大者可达 18 毫米,寬 9 毫米,一般长 1 厘米,寬 0.7 厘米,卵状长圓形至卵形,羽状浅裂,裂片 5—6 对,鈍头,有缺刻状齿,长 2 毫米,寬 1 毫米。花以 4 枚成輪,花輪 2—4 枚,各各疏距,下远上近,但不連接;苞片叶状,下部者与花等,上部者长于萼而短于花冠;萼全无毛,小而鐘形,长仅 2.5 毫米,前方仅略略开裂,具 5 齿,齿均长圓形,膜質而无綠色,长不达 1 毫米,內有疏网脉;花冠在基部以上 3 毫米处几以直角向前而略偏上方作膝屈,上段长约 7.5 毫米,在其中上部再度向上弯曲,故其下綫作圓臃,在下段与上段基部仅寬 1.5 毫米左右,在上段向上轉折处寬約 2.5 毫米,至喉部则扩大至 4.5 毫米,下唇小,长仅 5.5—7 毫米,側裂斜倒卵形鈍头,中裂倒卵形而圓,基部狹縮,約等側裂的半大,盔指向前上方或有时几垂直而指向上方,长 4—5 毫米,基部三角形而寬,有厚褶,寬約 3 毫米,上部細,寬仅 1.6 毫米左右,全长多少作鑷状弓曲,額平而不凸,下緣无任何凸出;花絲着生于相当于子房中部的花管上,两对均无毛,药对并生;花柱伸出。

为我国特有种,产四川西部康定一带。

这一种在亲緣上說来是最与三角齿馬先蒿相近,如在叶形,上部分枝,花冠下唇的形状等等,不过这一种的花序极疏散,花輪均各各疏距,中部几乎都有分枝,花冠之管有些象小唇馬先蒿 *P. microchila* 一样地再次向上轉折,故其上段的下綫很膨臃,还是容易区别的。

149. 微唇馬先蒿 图版 XLI, 1—5

Pedicularis minutilabris Tsoong, sp. nov., in Addenda 407.

一年生草本,高可达 25—30 厘米,然有时仅高 6 厘米即开花,干时綠色,完全光滑无毛。根圓錐状,下部有細側根,长达 3—5 厘米,根頸有卵形至披針形鱗片若干枚,发出 1—8 条直立或稍稍傾斜上升的茎。茎有縱条紋,节多者达 8 枚,疏距,中間之节間长达 9 厘米。叶下部者有时对生,中部以上者輪生,下部者具細长之柄达 20 毫米,上部者柄較短;叶片卵形至椭圆状卵形,长 1.5 厘米,寬 1 厘米,上面干时黑綠色,下面綠色而有清晰之网紋,羽状深裂,裂片倒卵形、长圓形或多少方形,每边 3—4 对,緣有缺刻状重齿,齿有刺尖。花序之花輪均疏远,偶有近頂处稍稍稠密者,有时从基部以上第一輪叶中即着花,故常占茎的大部长度;上方之苞片有細长之柄,仅有三枚小裂而甚短于柄;花小,长仅 9—10 毫米,具长 1 毫米的短梗;萼小,长仅 3 毫米,卵状鐘形,前方开裂达 $2/5$ 处,脉 8—10 条,粗而黑,其余部分薄膜質而无脉,齿 5 枚,后方一枚最小,长仅 0.7 毫米,其余 4 枚較大,长约 1 毫米,均基部三角形,中下部狹縮而上

部扩大,暗綠色,几无齿;花冠长约5毫米,約在2毫米处以 45° 角向前膝屈,全长几等粗,仅在近喉处下方有囊状膨大,下唇細小,显短于盔,长仅2.5—3毫米,中裂倒卵形,基部狹縮,向前伸出,端有微凹,側裂倒卵形,端几方而截形,中間有明显之凹缺,后緣直而不圓,因而組成整个下唇的楔形基部,寬仅略多于1毫米,盔狭而长,达4毫米,上下几等寬,頂平截而額不圓凸;雄蕊花絲两对均无毛。蒴果短,长仅8—9毫米,三角状卵形,扁平,有清晰的网紋,下部为宿萼所斜包,前端有刺尖,具长2毫米的柄,柄端弯曲而使蒴果水平生长或多少横展;种子褐色,长圓形,长3毫米。 花期7月。

为我国特有种,产四川西北部馬尔康、大金等处,生于海拔3,300—3,850米的冷杉林中有蘚处。

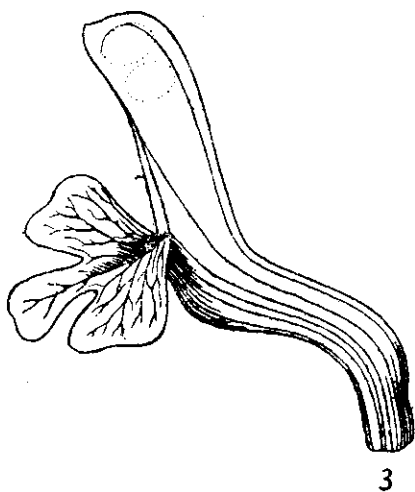
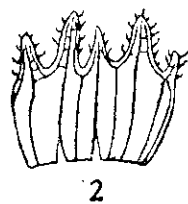
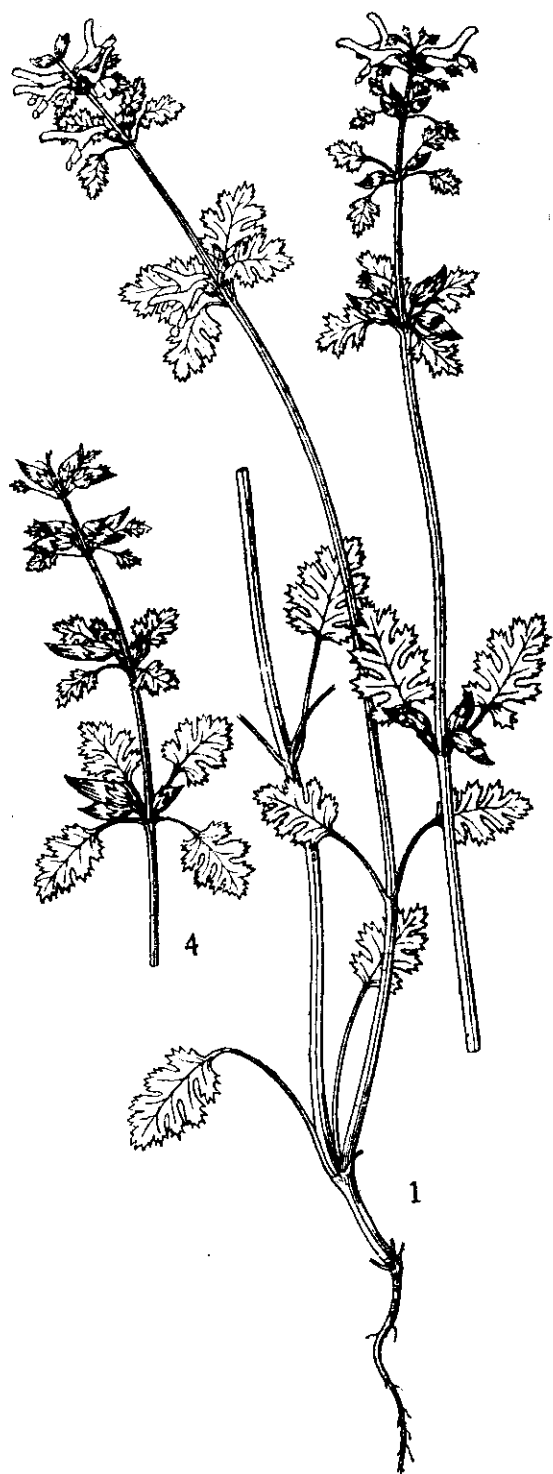
这一种的亲緣关系最与小唇馬先蒿(*P. microchila*)及軟弱馬先蒿相近,而尤以前者为相似,然而各种特征包括花与果的极小的尺度是易于分辨的,而且那一种的盔也多半有齿。

150. 条紋馬先蒿 图版 XXXVIII, 5—8

Pedicularis lineata Franch. ex Maxim. in Bull. Acad. St. Pétersb. XXXII (1888) 597, f. 118, et in Mém. Biol. XII (1888) 887, f. 118; Limpr. in Repert. Sp. Nov. XX (1924) 206, et XXIII (1927) 333; Li, in Proc. Acad. Nat. Sci. Philad. C (1948) 308, f. 36. — *P. szetschuanica* auct. non Maxim.: Bonati, in Notes Bot. Gard. Edinb. V (1911) 91. — *P. flaccida* auct. non Prain: Pai, in Contr. Inst. Bot., Nat. Acad. Peiping III (1934) 211. — *P. sparsissima* Tsoong, in Kew Bull. 1954, p. 447, syn. nov.

多年生草本,直立,一般高20—35厘米,高升的植株可达60厘米,干时不变黑色,草質。根多丛生,几不变粗,多少圓錐状而細,长3—7厘米,生有須状細根。茎单条或自根茎发出多条,中空,圓柱形,有条紋,沟中有成条之毛,久后几光滑,稻草色,不分枝,或下部上部均能分枝,枝細弱,对生或輪生。叶基生者早枯,有长而膜質之柄,长达15厘米;叶片圓卵形而小,长寬約仅7毫米,具裂片約3对,茎叶4枚輪生,中部者具长达6毫米的柄,上部者几无柄,叶片形状大小多变,心脏状卵圓形、橢圓状长圓形至綫状长圓形,面有疏短腺毛,背面脉上有白色疏长毛,长0.7—6厘米,寬6—25毫米,生于茎的中部者最大,緣羽状浅裂至半裂,裂片卵形至长圓状卵形,每边5—8枚,有具短刺尖的重鋸齿,有时齿端有胼胝而反捲,长自約1毫米起,达10毫米,寬亦

图版 XLI 1—5 微唇馬先蒿 *Pedicularis minutilabris* Tsoong, 1. 植株×1; 2. 花萼×8; 3. 花冠×8; 4. 果枝×1; 5. 果实×4。(繪图人张荣厚)



longum, 7.5—10.5 mm. latum, basi late cuneatum usque subtruncatum, margine pilis brevissimis ciliatum, lobo medio minore, anguste obovato, porrecto, basi attenuato breve stipitato, lobis lateralibus plus minus oblique rhomboideo-ovatis vel leviter obovatis, margines eius haud superpositis, galea fere recta, oblique directa, margine antico 3.5—5.5 mm. alta, fronte truncata, apice apiculata; filamentis staminum glabris; stylus nunc exsertus nunc inclusus. Capsula deltoideo-lanceolata, loculis leviter inaequalibus, sed ambitu vix obliqua, 10—15 mm. longa, apice acuta vel angustata acuminata; semina brunnea, circ. 1 mm. longa, immatura.

Szechuan: Pao-shin Distr., Teng-tzu-kou, alt. 3300 m., in forest (T. H. Tu 4345), (type); same distr., Shiao-chi, Ma-hwang-kou, alt. 2300 m., in forest (H. S. Chang & Y. S. Jen 5729), VI, 30, 1958. Ta-king Distr., Ka-sha Hsian, Kong-ka Shan, Chi-tien-tzu, alt. 3400 m., grassy slope (H. Li 77541), V, 30, 1958. Siao-king Distr., Si-ho-kou, Ta-shui-kou, alt. 3600 m., (H. S. Chang & Y. S. Jen 6179), VII, 24, 1958. Ma-erh-kang Distr., Pai-tsian-ma Ho, alt. 3100 m., riverside (H. Li 71653), VI, 22, 1957. "Dongrergo, Kuan-yin-miao, in silva muscosa, alt. 3700 m. (H. Smith 3488), VIII, 8, 1922."

Pedicularis triangularidens Tsoong, subsp. **triangularidens**, var. **angustiloba**, var. nov.

A var. *triangularidente* differt lobis labii inferioris angustioribus, iis lateralibus tantum 2.5 mm. latis, lobo medio ultra medium labii inciso, 3.5 mm. longo, 2 mm. lato, liguliforme, basi vix angustato, sinubus labii triangularibus omnibus partibus floris etiam gracilioribus.

Szechuan: Ta-king Distr., Pa-cha-kou, alt. 2750 m., side of river (Eighth Forest Survey no. 4152), VII, 9, 1958, (subsp. type).

Pedicularis triangularidens Tsoong, subsp. **chrysosplenoides**, Tsoong, subsp. nov.

A subsp. *triangularidente* recedit planta 10 cm. circ. alta, foliis infimis subreniformi-cordatis usque rotundato-ovatis, eisque mediis iam floriferis, eorum laminae rotundato-ovatae, basi subcordatae, 18 mm. longae, utrinsecus lobis 3—4 tantum praeditae, petiolis lamina aequilongis, eis supremis solum rhomboideo-ovatis basi cuneatis, brevius petiolatis; floribus minoribus, calyce 3.5 mm. tantum longo, intra propeque dentes laxae reticulato, corolla 9 mm. tantum longa.

Szechuan: "Tsi-pu La, in silva coniferum, ca. 3600 m.s.m. (H. Smith 4161)", VIII, 2, 1922, (subsp. type).

149. **Pedicularis minutilabris** Tsoong, sp. nov. (Ser. praeced.)

Structura floris cum galea elongata labium inferiorem magis superante *P. microchila* Franch. admonet, sed multo debiliore, floribus minoribus et imprimis lobis labii inferioris angustioribus liberis diversissima. Quo character quodammodo *P. triangularidente* m. appropinquatur, quae imo longitudine labii inferioris fere galeae, magnitudine floris quoque majore distat.

Annua, ad 25—30 cm., sed nonnumquam tantum 6 cm. alta, siccitate viridis, undique glabrescens. Radix conica, inferne fibroso-ramosa, 3—5 cm. longa; collo

squamis ovatis vel lanceolatis praedito. Caules 1—8, erecti vel leviter adscendentes, longitudinaliter striati, usque 8-nodosi, nodis remotis, iis mediis usque 9 cm. distantibus. Folia verticillata, inferiora nunnumquam opposita, petiolis usque 20 mm. longis suffulta, superiora brevius petiolata; laminae ovatae usque elliptico-ovatae, ad 1.5 mm. longae, 1 cm. latae, supra intense virides, subtus dilute virides et prominente reticulatae, margine pinnatipartitae, lobis utrinsecus 3—4, obovatis, oblongis vel plus minus rectangularibus, inciso-duplicato-serratis, dentibus aristato-cuspidatis. Inflorescentiae e verticillastribus remotis, eisque saepe secus totam longitudinem caulis distributis; bractee superiores saepe graciliter longeque petiolatae, lamina triloba, multo quam petiolo breviora. Flores parvi, 9—10 mm. tantum longi, pedicellis 1 mm. longis suffulti; calyx parvus, 3 mm. longus, ovoideo-campanulatus, antice ad $2/5$ fissus, costis 8—10 intense coloratis exceptis membranaceus et enervatus, dentibus 5, postico minimo, 0.7 mm. tantum longo, reliquis majoribus, 1 mm. longis, omnibus e basi deltoidea angustatis quasi stipitatis, superne dilatatis, atroviridibus, fere integris; corolla circ. 5 mm. longa, tubus 2 mm. supra basin sub angulo 45° geniculatus, labium inferum minutum, quam galea manifeste breviora, 2.5—3 mm. tantum longum, lobo medio obovato, basi contracto, porrecto, apice leviter retuso, lobis lateralibus obovatis, apice fere rectangularibus et truncatis, margine antice medio prominenter retusis, basin versus attenuatis, vix plus quam 1 mm. latis, galea multo longior quam latior, 4 mm. longa, tota longitudine fere aequilata, apice truncata et fronte vix convexa; staminum filamentis totis glabris. Capsula brevis, 8—9 mm. tantum longa, deltoideo-ovoidea, complanata, manifeste reticulata, apice mucronulata; semina brunnea, oblonga, 3 mm. longa.

Szechuan: Ma-erh-Kang, Wang-kia-tsai-kou, alt. 3600 m. (H. Li 7193), VI. 26, 1957, (type).

152. **Pedicularis angularis** Tsoong, sp. nov. (Ser. Metaverticillatae). — *P. szetschuanica* Maxim. subsp. *typica* var. *angulata* Tsoong, in MS. H. Smith, Plantae Sinenses, Scrophular. (1950). — *P. szetschuanica* Maxim. in Bull. Acad. St. Pétersb. XXXII (1888) 601, pro parte, f. 125, pro parte, quoad galeam sinistram, et in Mém. Biol. XII (1888), 892, pro parte, f. 125 pro parte, quoad galeam sinistram. — *P. szetschuanica* Maxim. var. *typica* Li, in Proc. Acad., Nat. Sci. Philad. C(1948) 317, quoad Rock 12620 saltem.

Nostra cum galea apice angulata ac *P. pseudoversicolor* H.-M. certe in evolutione structurae floris media inter *P. szetschuanicam* Maxim., cuius galea ut in *P. oederi* Vahl anodonta est, et *P. Metaszetschuanicam* m., quae ac *P. habachanensis* Bonati galeam bidentatam habet. Praeterea a utraque differt longitudine galeae labio inferiore breviora indumentoque denso fere villosa.

Annua, circ. 15 cm. alta, sed nunnumquam ad 40 cm. attingens, siccitate non nigrescens. Radix parva, simplex vel ramosa, plus minus lignosa, 2 cm. longa. Caules erecti, vel lateralibus plus minus adscendentes, longitudinaliter striati, pilis longis, patentibus, albidis vel fuscis, dense sed superne et ad nodos densius vestiti. Folia basalia evanida vel nunnumquam persistentia, petiolata, petiolis 7—20 mm. longis,