

常为美丽的暗紫紅色，其毛有清晰的暗紫色細胞間隔障；萼亦生有与苞片相同的毛，多少管状，长达6毫米，管部后方高前方低，几不开裂，长2.5—3毫米，膜質，常有紅暈，具脉10条，中部以上有极疏的网紋，齿长1.7—2毫米，基部三角形，后方1枚仅在端部略略膨大，其余4枚上部膨大而綠色，全緣或有1—2枚大缺刻及小齿，常反捲，緣有稠密的具紫色隔障的长毛；花冠长约15—16毫米，为鮮丽的紫紅色，管在离基4毫米处向前上方膝屈，下段約寬1.8毫米，上段长7毫米，下綫中部多少向下膨脹，粗壮，近基处即粗2.6毫米，喉部亦仅寬4毫米，下唇极丰满，寬11毫米，长仅6毫米，緣有明显的深嚙痕状齿，裂片3枚均为圓卵形，几乎等大，盔短，长约4.5毫米左右，前緣中部稍稍圓凸而有內向皺褶，寬2.5毫米，上部仅寬1.5毫米，后頂圓形，向前緣稍稍昂起，而后突然向前下方以一截形的斜綫成一方角；花絲兩对均无毛；花柱从方角中伸出。花期8月。

为我国特有种，仅見四川西北部，生于海拔4,700米的碎石坡上。

这是輪叶系和其它相近的系中的唯一生有根茎的种类，分明是高山碎石山坡所促成的一个特殊的由四川馬先蒿或稜盔馬先蒿轉变而来的生态型。不計其他的特征，只就具有紫色細胞間隔障的长毛一点上來說，也是在靠近的种类中所不見的。

154. 后生四川馬先蒿 图版 XLII, 4—6

Pedicularis metaszechuanica Tsoong, sp. nov., in Addenda 410. — *P. szetschuanica* Maxim. subsp. *typica* var. *dentigera* Tsoong, in MS. H. Smith, *Plantae Sinenses*, Scrophul. (1950) ined.? — *P. szetschuanica* Maxim. in Bull. Acad. St. Pétersb. XXXII (1888) 601, pro parte, f. 125, pro parte, quoad florem sinistrum, et in Mém. Biol. XII (1888) 892, pro parte, f. 125, pro parte, quoad florem sinistrum.

一年生草本，高达25厘米，干时多少变黑。根多少圓錐状，不分枝或分枝，有极少須状側根，长可达5厘米，木質化。茎单一或2—7条自根頸发出，外围者基部多少偃臥而后上升，多白色伸张之长毛，节上尤多，成为毛茸状。基叶多少宿存，有細柄长达1—1.5厘米，多少有白毛；叶片小，多少长圓形至披針形，长达1厘米，寬2.5—4毫米，羽状浅裂，裂片4—6对，茎叶柄較短，叶片稍較大，柄上密生白色长毛，上面有压平的捲曲白毛，背面脉上有长白毛。花序頂生，下方一枚花輪有时相距甚远，其余多少連續成短穗状，下方者不計长达4厘米；苞片下部叶状，中上部者菱状寬卵形，基部广楔形膜質，生有密长毛；萼长4—6毫米，膜質，后方高前方低，不开裂，脉10条，暗綠而明显，近齿处与齿內略有网紋，齿三角形而短，5枚，多少不等，后側方者最大，端不膨大或仅稍稍膨大而为暗綠色；花冠长15毫米，紅紫色，管在基部下2.5—3毫米处向

前上方膝屈,但因萼的外傾而使花冠向前,上段長約 7 毫米,喉部擴大,寬 4.5 毫米,下唇長 6 毫米,寬 7—9 毫米,側裂倒卵形,中裂寬卵形,略小於側裂,邊緣多少蓋迭,蓋長 5.5—6.5 毫米,几与花冠下方一段同其指向,前緣下部稍圓凸,頂圓形,前額斜下与突然向前轉折之前緣頂端組成寬闊的方形喙狀凸出,再从其下緣伸出指向前方的細須狀齒 1 对;雄蕊花絲均无毛;花柱伸出。

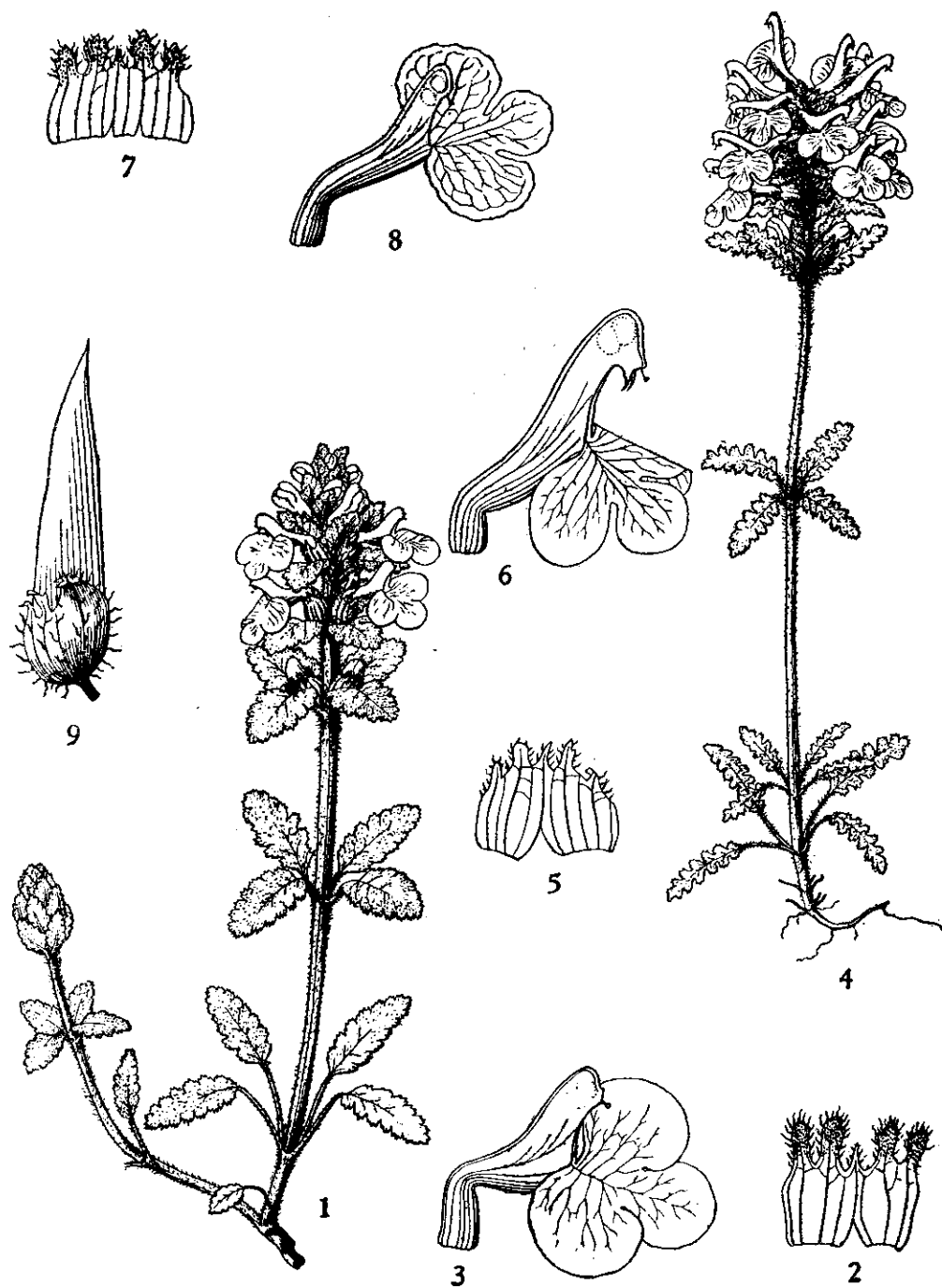
为我国特有种,产四川北部松潘、黃胜关一带,生于海拔 3,200—3,400 米的开曠草地中。

这一种为麦克齐莫維奇氏籠統地归在四川馬先蒿內。在他的图 125 中是为左手方一图所代表。它与四川馬先蒿,除花蓋有齿外,并无其他重要区别,但在这里齿显然表示明确的进化步骤,而且还有其他相近种类,有此表现,所以不能仅作为四川馬先蒿的一个变种。

155. 小唇馬先蒿 图版 XLIII, 5—8

Pedicularis microchila Franch. ex Maxim. in Bull. Acad. St. Pétersb. XXXII (1888) 595, f. 113, et in Mém. Biol. XII (1888) 884, f. 113; Limpr. in Repert. Sp. Nov. XX (1924) 207; Li, in Proc. Acad. Nat. Sci. Philad. C (1948) 309, f. 39.

一年生草本,干时不变黑色,高可达 40 厘米。根不分枝,細而直,有时弯曲,长达 4 厘米,須狀側根少。莖单一或在強大植株中多至 5 条,从根頸发出,直立或外方者基部稍稍弯曲上升,草質而弱,有縱条紋,下部均无毛,中部以上亦光滑或在沟紋中有毛,节上尤然。叶稀少,基生者早枯,莖生者最下方一节上者常对生,自此以上均为 4 枚輪生,最下部者具长达 2 厘米而几为膜質的叶柄,第二輪之柄一般較短,长仅 1 厘米左右,再向上者即无柄;叶片長圓形至橢圓形或卵形,最下部者最小,长不达 1 厘米,中部者最大,一般长 20 毫米,最大者达 35 毫米,寬 13 毫米,两端都鈍头,基部有时略作心脏形抱莖,具缺刻狀淺裂或重鋸齿 6—10 对,小裂片亦有重齿,两面均无毛,背面細网脉明显。花序由 1—8 个花輪組成,每輪含花 2 或 4 朵,各各疏距,仅極頂數輪在开花时視如相連;苞片叶狀至卵狀团扇形,有短柄;萼卵狀鐘形,指向前上方,長約 4.5 毫米,具脉 10 条,5 主 5 次,齿 5 枚相等,三角狀卵形,有不显著之齿,脉与齿上均有毛;花冠之管与下唇淺紅色,蓋紫色而較深,全长达 20 毫米,管基部一段与萼管同一指向而与之等长,至萼喉稍稍膝曲而轉指前方,長約 3.5—4 毫米,然后其上綫(背綫)突然以近乎或过于直角的角度轉折向上而成为蓋,其下綫(腹綫)則繼續向前并稍扩大成寬 2/5 毫米的喉部而連于下唇,下唇長約 7 毫米,側裂橢圓形較大,中裂有



basi late cuneata usque subrotundata, supra pilis sparsis appressis subtus ad costas pilis longis setiformibus vestita. Inflorescentiae fere continuae, longiores ad 5 cm. longae, illae ramorum lateralium saepe breviores et capitatae, omnino densissime fusco-pilosae; bractae deltoideo-cordatae usque late rhomboideo-ovatae, crenato-dentatae, flore multo breviores, saepe pulchre atropurpureae, pilis manifeste purpureo-septatis vestitae; calyx eodemmodo pilosus, plus minus tubulatus, ad 6 mm. longus, tubo membranaceo, 2.5—3 mm. longo, saepe colorato, 10-costato, supra medium laxissime reticulato, dentibus 1.7—2 mm. longis, basi deltoideis, postico apice tantum leviter dilatato, reliquis validiore expansis, viridibus, integris vel 1—2 incisus et dentatis, parte superiore saepe reflexis, margine pilis longis colorato-septatis densissime ciliatis; corolla circ. 15—16 mm. longa, pulchre purpurea, tubus ca. 4 mm. supra basin geniculus, parte inferiora 1.8 mm. lata, superiora 7 mm. longa, plus minus curvata, basi 2.6 mm., oreque ad 4 mm. lata, labium inferum amplum, 6 mm. tantum longum, 11 mm. latum, margine manifeste erosum, lobis omnibus ovatis, fere aequalibus, galea brevis, circ. 4.5 mm. longa, margine antice medio plus minus convexa et introrse plicata, 2.5 mm. lata, superne 1.5 mm. tantum lata, apice dorso rotundata, antice leviter elevata, deinde subito angulam oblique truncatam formata; staminum filamentis omnibus glabris; stylus ex angulo galeae exsertus.

Szechuan: "reg. bor., Dongrergo, in declivitate microlapidosa, c. 4700 m.s.m. (H. Smith 3147), IX, 8, 1922". (typus).

154. **Pedicularis metaszetschuanica** Tsoong, sp. nov.—*P. szetschuanica* Maxim. subsp. *typica* var. *dentigera* Tsoong, in MS. H. Smith, Plantae Sinenses, Scrophul. (1950).—*P. szetschuanica* Maxim. in Bull. Acad. St. Pétersb. XXXII (1888) 601, pro parte, f. 125, pro parte, quoad florem sinistram, et in Mém. Biol. XII (1888) 892, pro parte, f. 125, pro parte, quoad florem sinistram.

Per omnia cum *P. szetschuanica* Maxim. congruens, sed galea apice manifeste bidentata diversa.

Annua, ad 25 cm. alta, siccitate plus minus nigrescens. Radix leviter conica, nonnumquam ramosa, radiculis fibrosis paucis munita, ad 5 cm. longa, lignosa. Caules singulus vel 2—7, laterales leviter adscendentes, undique sed ad nodos densius pilis albidis patentibus obtecti. Folia basalia saepe persistentia, petiolis gracilibus 1—1.5 cm. longis, plus minusve albo-pilosis, lamina parva, oblonga usque lanceolata, ad 1 cm. longa, 2.5—4 mm. lata, pinnato-lobata, lobis utrinsecus 4—6, folia caulinarum brevius petiolata, lamina paulo majora, supra appresse albo-crispato-pilosa, subtus secus costam longe pilosa. Inflorescentia terminalis, verticillaster infimus florum saepe longe distantus, reliqui continui et in spicam breves ad 4 cm. longam aggregati; bractae inferiores foliiformes, mediae et superiores late rhomboideo-ovatae, basi late cuneatae et membranaceae, pilis longis dense obtectae; calyx 4—6 mm. longus, membranaceus, non fissus, costis 10, atroviridibus, prominentibus, prope dentes leviter reticulatus, dentibus 5, breve deltoideis, plus minus inaequalibus, postero-lateralibus maximis, apice vix vel leviter dilatatis, atroviridibus; corolla 15 mm. longa, purpureo-rubra, tubus 2.5—3 mm. supra basin geniculatus, parte superiore circ. 7 mm. longus,

ore inflatus, 4.5 mm. latus, labium inferum 6 mm. longum, 7—9 mm. latum, lobis margine plus minus sese tegentibus, lateralibus obovatis, medio late ovato, paulo quam lateralibus minore, galea 5.5—6.5 mm. longa, apice rotundata, antice subito cum marginibus anticis rostrum brevissimum oblique truncatum ad angulos inferos dentibus 2 filiformibus ornatos formata; staminum filamentis omnibus glabris.

Szechuan: "Sungpan, mont. orient., in prato aprico, 3200—3400 m.s.m. (H. Smith 2521), 1913, VII, 22", (typus).

158. **Pedicularis latirostris** Tsoong, sp. nov. (Ser. Cheilanthifoliae)

Proxima *P. cheilanthifoliae* Schrenk videtur, galea autem medio valde incurvata vix falcata parteque antherigera in rostrum latissimum oblique truncatum abeunte distinctissima.

Perennis, ad 12—24 cm. alta. Radix ramosa, gracilis, leviter fusiformis, 2.5 mm. diam., ad 8 cm. longa; collo squamis membranaceis ovatis usque lineari-lanceolatis ornato. Caules saepissime singuli, rarius 2, plus minusve quadriangulares et 4-fariam pubescentes, inflorescentia excepta plerumque 2—3 nodosi, internodio medio longissimo, ad 8 cm. longo. Folia inferiora longe petiolata, petiolis 2.5 cm. circ. longis, filiformibus, sparse pubescentibus vel laevibus; lamina anguste oblonga usque lineari-oblonga, 10—15 mm. longa, pinnatisecta, segmentis utrinsecus 6—8, ovatis usque lanceolatis, sed saepe e marginibus revolutis quasi linearibus, ad 2.5 mm. longis, 1.5 mm. latis, pinnatilobatis vel inciso-serratis, folia media brevius petiolata, petiolis 2.5—13 mm. longis, lobis laminae numerosioribus, usque 13-paribus. Inflorescentia subcapitata vel breve spicata, saepe continua, 2—5 cm. longa, sed verticillastri infimo nonnumquam reliquis longe distante; bractae inferiores foliiformes, superiores basi dilatatae et membranaceae, superne virides et 2—3-lobatae; calyx tubulosus, medio leviter inflatus, antice $1/2$ usque $2/3$ fissus, circ. 8 mm. longus, costis 8, inaequalibus, iis in dentes calicis postico-laterales extensis validissimis, dentibus 5, postico basi late triangulare, superne parvo, atroviride, postico-lateralibus maximis, 1.8 mm. longis ac latis, apice atroviridibus et latis, manifeste trilobatis, antero-lateralibus minimis, basi vix deltoideo-dilatatis, vix 1 mm. longis, anguste oblongis, atroviridibus, secus margines fissurae tubi decurrentibus; corolla alba, paulo purpureo-maculata absque parte horizontale galeae 20 mm. longa, tubus circ. 10 mm. longus, ad medium circ. angulo 35° geniculatus, labium inferum 6 mm. longum, 12 mm. latum, lobis lateralibus rhomboideo-ovatis, 5 mm. latis, lobo medio minore, multo latiore quam longiore, ad 3 mm. longo, 5.5 mm. lato, ovato-deltoideo, basi utrinque angustato, galea parte verticali leviter reflexa, margine antice circ. 4.5 mm. alta, medio plus minus inflata, apice sub angulo recto vel paulo ultra geniculata, dorso rotundato-falcata, parte horizontale circ. 10 mm. longa, antice gradatim in rostrum latum tantum paulo quam parte antherigera angustius attenuata, apice truncata vel paulo rotundata; filamentis staminum anteriorum solum apicem versus sparsissime pilosis, loculis antherarum apiculatis; stylus 1—2 mm. exsertus.

Kansu: Labrang, alt. 3800 m. (T. P. Wang 7292), VII, 19, 1937 (type).

172. **Pedicularis pseudocurvitiba** Tsoong, sp. nov. (Ser. Myriophyllae). — *P.*