

5~14 μ に至る。

根莖の縦断面を鏡檢するに外皮部に存する假纖維は紡錘形をなし脈管は網紋又は階紋脈管より成り、纖維束は紡錘形で特異の孔紋がある。分泌物細胞は橢圓形である。

根莖から稀に分岐せる細根につき横断面を鏡檢するに栲層は7~10層の栲細胞からなり明瞭な新生組織輪によつて皮部と木部とに分れ、木部には髓を缺き中心より髓線及び脈管交互に放射狀に射出し、脈管部は新生組織を隔てて篩管部に連らなること根莖の場合と略々同様である。分泌物細胞は皮部に於て多數を認める。

川芎につき一般分析の結果は次の通りである(%)。

種 類	水 分	灰 分	水製エキス	精 油
北海道産	10.35	4.13	25.14	1.0
市 販 品	12.67	5.07	49.17	0.8

尙、川芎の解剖學的所見に就ては藤田直市博士の解剖圖並に伊吹高峻氏の所見があるから参照せられ度い。

- 1) 藤田直市: 藥學雜誌 44 卷圖版 18 (大正 13)
- 2) 伊吹高峻: 東京女子藥學專門學校校友會誌 8.1.(昭和 10 年)
解剖圖略字解

C. 新生組織 efa, aef. 假纖維 Fa. 纖維. Gef. 脈管 K. 栲層 Obab. 破壊した篩管 M. 髓 M.s. 髓線 Pa. 柔細胞 Se. 分泌物細胞 Sieb. 篩管 Stä. 澱粉 Tu. 孔斑
(昭和 18 年 7 月稿)

古澤 潔 夫* シホガマギク屬の解説 (三)

Isao HURUSAWA: Genus *Pedicularis* (3)

前回迄にオニシホガマ亜屬の各節を解説したが、從來の群概念と區分に若干の摺れもあるので、學名變更を含めて整理すると以下の如くなる。

Pedicularis Linn., Sp. Pl. 607. (1753)

Subgenus *Sceptrum* Bunge emend. Hurusawa. (sensu amplificat.)

I. sect. *Anodon* Bunge in Ledeb., Fl. Ross. 3-9, 268, 299. (1847-1850) (sensu emendato)—series *Edentulae* Stevea sensu Benth. (1846) pr. part. quoad subser. *Foliosae* (Bunge) Benth. et subser. *Humiles* Benth.—tribus *Anodontae* Maxim. (1886) hic incl. sect. *Sceptra* (Maxim.), sect. *Acaules*

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(Benth.), sect. *Foliosae* (Maxim.), sect. *Limnogenae*, sect. *Roseae* (Maxim.) et sect. *Hirsutae* (Maxim.) Steininger—sect. *Anodontae* A. Sceptra et C. *Subbidentatae* (pro parte) Prain (1890)—sect. *Anodontae verae* Bonati (1910)—sect. *Anodontae alternifoliae* Limpricht (1924).

Subsect. 1. *Acaules* (Bentham) Hurusawa subsect. et stat. nov.—series *Edentulae* subseries *Acaules* Benth. in DC., Prodr. 581. (1846)—series *Sceptra* Maxim. (1877) pr. part.—sect. *Acaules* Steininger (1877)—series *Acaules* Prain (1890); Wettstein (1895).

Intra generem *Pedicularidem* primitissimus typus, caule subnullo, foliis omnibus longe petiolatis e terra cum floribus pedunculatis axillaribus solitariis caespitosis. Corollae galea apice obtusa edentata erostrataque longitudine labio brevior vel fere hoc aequans et huic subaccumbens. Calycis 5-fidi laciniae apicem versus paulatim dilatatae subfoliaceae margine serrulatae.

Pedicularis Artselaeri Maxim. in Mel. Biol. 10. 127. (1877) Modo crescendi insignis, area geographica procul ab affinis speciebus et inter se dispersius habitans, species reliqua videtur, varietates duae distributae.

var. *wutaiensis* (an typica) Locus typicus huius species Mongolica orientali-australis (secund. cl. Maximowiczium), prope Kalgan; planta shansiensis ex mt. Da-wutai-shan cum figura Maximowicziana, ex qua galea corollae magis incurva apice obtusiora (nec acutiuscula), lobis labii margine subundulatis (et pedicellis saepius longioribus ad 10cm attingentibus) leviter differre videtur. Nom. Jap. Hagakure-shiogama.

Hab. China, prov. Shansi, Wutai-shan. (M. Tatewaki)

var. *koraiensis* Hurusawa, var. nov. Planta ex omnibus partibus praesertim floribus cum foliis major galea corollae roseae apice magis obtusioribus et calyce glabriusculo e typo bene distinguitur sed constructione floris non abunde differt. Nom. Jap. Haruzaki-shiogama.

Hab. Korea, prov. Kōkai-dō. (K. Tyō)

Subsect. 2. *Grandiflorae* Hurusawa subsect. nov.—*Pedicularis* B. *Prosopia* Reichenbach, Fl. Germ. Excurs. 393. (1831)—series *Personatae* Steven sensu Benth. (1845) pr. part.—subgen. *Sceptra* Bunge et incl. subgen. *Diacmandra* Bunge (1847~1850)—series *Sceptra* Maxim. (1877) pr. part.—sect. *Anodontae* A. *Sceptra* Prain (1890) excl. series *Acaules* Prain.

Series 1 *Lunares* Hurusawa series nov.

Habitu praesertim caule elato folioso cum foliis caulinis bene evolutis sect. Rhyncholopham spectans, sed galea corollae erostrata edentata hic collocanda. Calyx profunde 5-dentatus, dentibus longe triangularibus apicem versus acuminatis acutiusculis. Labium quam galea elongata lunata magis brevius et huic fere parallele se sustinens. Charactere labii ad seriem Brevilabres (species omnes Americanae) appropinquat. Typus: *Pedicularis lunaris* Nakai.

Praeterea in hac subsectionem sequentes series adnumerandae.

Series 2. Sceptra Maxim. sensu stricto (series Gloriosae Prain).

Series 3. Grandiflorae (uti Grandiflora) Prain

Series 4. Capitatae Prain

Subsect. 3. **Lanatae** Hurusawa subsect. nov.—sect. Anodontae C. Sub-bidentatae Prain (1890) pr. part.

Caulis evolutus, foliis caulinis alternis, cum radicalibus caespitosis, sparsis nonnumquam numerosis. Inflorescentia ad scapum spicata (nec flores solitarii uti in subsect. Acaules) interdum subcapitato-congesta vel interrupta. Galea apice obtusa vel edentata vel saepius infra apicem subbidentata (nec evidenter bidentata ut in sect. Lophiodon), labio e galea patente. Ex affinitate subsect. Grandiflorae ut sequentur distinguenda. Galea corollae cucullata vel plus minus apice obtusissima saepe rotundata labio parallela vel huic accumbens.—subsect. Grandiflorae. Galea corollae apice vulgo obtuso-edentata sed in speciebus nonnullis ad inferiorem angulum obsolete et minutissime bidentata, labio e galea distincto rectangulo-patente.—subsect. Lanatae.

Series 1. Hirsutae Maxim.

subseries 1. **Langsdorffianae** m. Inflorescentia longius spicata laxa centripetalis. Galea angulo frontali superiore obtusissima inferiore breve et abrupte acuta hic minutè bidentata.

Pedicularis Langsdorffii Fischer in Steven, Monogr. Pedic. 49. tab. 9. fig. 2. (Mem. Soc. Moscou 6) (1823) sensu strict. Nom. Jap. Beringu-shiogama.

Specim. examin. Siberia maxime orientalis, Nova-Marinsk. (K. Igawa, Jul. 1922)

subseries 2. **Oederianae** m. Inflorescentia spicata congesta centrifugalis. Galea angulo apicali utroque obtusissima vel inferiore tantum acutiuscula dentibus

obsoletis. Corollae galea e tubo rectiuscula labio subaequans, (*P. lanata*) vel e medio ad frontem versus labium subaccumbens et hoc superans, labio e galea rectangulo patulo. (*P. Oederi*)

Pedicularis Adamsi Hulten, Fl. Kamtch. 117. (1930)—*P. lanata* (non Cham. & Schlecht.) Willd. ex Steven—*P. Langsdorffii* Fischer var. *lanata* (Willd.) A. Gray (1886)—*P. lanata* var. *alopecurpides* Trautvetter (1877)—*P. alopecuroides* Adams ex Steven (1823) pr. part. ex herb. (apud Hulten, 1930) Nom. Jap. Igawa-shiogama.

Specim. examin. Siberia. orientalis, Archangel-Gabriel. (K. Igawa, Jul. 1922); Anadyr (F.C. Greatrex).

Pedicularis lanata Chamisso & Schlechtendal in Linnaea 2: 534. (1827). Nom. Jap. Aizawa-shiogama vel Wata-shiogama.

Specim. examin. Ins. Kuril, Shumushu. (K. Yendo, Jul. 1930)

Pedicularis Oederi Vahl in Hornemann, Dansk. Oekon. Plantef. ed. 2. 580. (1806)—*Pedicularis versicolor* Wahlenberg, Veg. Heivet. 118 (1813).

var. **sinensis** (Maxim.) Hurusawa comb. nov.—*P. versicolor* Wahlenb. var. *sinensis* Maxim. in Mel. Biol. 12: Tab. VII, fig. 177-b. (1888). Nom. Jap. Kibana-shiogama.

Specim. examin. China, prov. Shansi, mt. Wu-tai shan (M. Togashi, Jul. 1942); Japonia, Yezo, mt. Daisetsu. (T. Nakai, Aug. 1928); Honshu, prov. Yettyū. Shimo-niikawa-Gun, mt. Yariga-take. (M. Kishida, Jul. 1909) hoc postremum paulisper cum dubio.

var. **yezoana** (Nakai) Hurusawa, comb. nov.—*P. versicolor* Wahlenb. var. *yezoana* Nakai in Bot. Mag. Tokyo 23: (101) (1909) "Corolla rubra. Calycis dentes serrati.

Nom. Jap. Tishima-shiogama vel Uruppu-shiogama.

Specim. examin. Kuril, ins. Shumushu. (K. Yendo, Jul. 1903)

Praeterea huc adnumerandae.

Series 2. Rosae Maxim.

Series 3. Foliosae Maxim. (subseries Foliosae sensu Prain, l. c. 98 pro serie, et subseries Exaltatae sensu mihi, Prain l. c. pro serie, hic inclusae) Subseries posterior calyce antice fisso tantum a praecedente, subser. Foliosae recedit, qui calycem non fissum possidet, eum interim pro subserie huius series habeo.

Series 4. Limnogenae (Steininger) Prain (ut Limnogenae)

II. sect. **Metanodontae** Hurusawa, sect. nov.—series Verticillatae Steven(1823); Benth.(1845) pr., part.—sect. Cyclophyllum Bunge pr. part.—tribus Verticillatae Maxim. pr. part.—subgen. Verticillatae.(Maxim.) Steininger pr. part.—sect. Anodontae B. Cyclophylla Prain pr. part.—sect. Anodontae-verticillatae Bonati(1910); Limpricht(1924).

Pedicularis refracta Maxim. loc. cit. 11: 289 (1881)—*P. verticillata* var. *refracta* Maxim. (1877)

var. **transmorrisonensis** (Hayata) Hurusawa, stat. nov.—*P. transmorrisonensis* Hayata, Icon. Pl. Formos. 5: 126 (1915) Nom. Jap. Niitaka-shiogama.

III. sect. Lophiodon Bunge (loc. cit. p. 258.) emend. (sensu amplificat.) —sect. Lophodon (sphalmate?) sic Bunge loc. cit. p. 284. et simul sect. Pharyngodon Bunge loc. cit. p. 263, 282. includenda.—series Bicuspidatae Steven (1823); Benth. (1846)—tribus Bidentatae Maxim.—subgen. Bidentatae (Maxim.) Steininger, incl. sect. Sudeticae (Maxim.), sect. Comosae (Maxim.), sect. Palustres (Maxim.), sect. Canadenses (Maxim.) et sect. Striatae (Maxim.) Steininger.—sect. Bidentatae B. Verae Prain et C. Striatae Prain et D. Racemiflorae Prain (1890)—sect. Bidentatae verae Bonati (1910)—sect. Bidentatae alternifoliae Limpricht (1924).

Subsect. 1. Striatae (Maxim.) sensu Prain(1890).

Subsect. 2. **Comosae** (Maxim.) Hurusawa stat. nov. et emend.—series Comosae Maxim. 1. c. 116. et simul. incl series Sudeticae Maxim. 1. c. 114.—sect. Bidentatae B. Verae Prain. 1. c. 87.

Comosae sunt formae typicae huius sectionis Lophyodontarum speciebus intra sectionem numerosissimis in series sequentes distribuendae.

Series 1. Sudeticae Maxim.

Series 2. Comosae Maxim.

Pedicularis mandshurica Maxim. 1. c. 10: 120 (1877). Nom. Jap. Manshū-shiogama.

var. **coreana** (Bonati) Hurusawa, comb. nov.—*P. coreana* Bonati in Bull. Soc. Bot. Fr. 54: 374. (1907). Specim. examin. Korea, mt. Diamant. (Faurie, n. 881?)

Pedicularis nigricans Nakai in Bot. Mag. Tokyo 30: 145 (1916)—*P. atropurpurea* Nakai in Bot. Mag. Tokyo 29: 3 (1915), non Nordman (1837). Nom. Jap. Iwa-shiogama.

Subsect. 3. **Palustres** (Maxim.) Hurusawa stat. nov. et emend. (sensu amplificat.)—sect. Pharyngodon Bunge, l.c. 269, 282.—series Paucidentis Steven (1823); Benth. (1846) pr. part. (excl. subseries 1. Longirostres sensu Benth.)—sect. Palustres (Maxim.) Steininger (1886)—sect. Bidentatae C. Racemiflorae Prain (1890).

Corollae forma plus minus ad sect. Rhyncholopham vergunt, quoad galeam brevi-rostratam, interjectam inter hanc et illam sistunt. Dentes galeae, praeter apicales semper existentes, ad medium siti aut distinctissimus (ut in *P. sachalinensi*) aut desiderati (ut in *P. euphrasioides*).

Series 1. Palustres Maxim.

Series 2. **Sylvaticae** m., galea forma seriei praecedentis sed dentibus ad medium non praedita. *P. sylvatica* et *P. euphrasioides* hic numerandae.

Series 3. Canadenses Maxim.

IV. sect. **Hyporhyncholophae** Hurusawa, sect. nov.—sect. Cyclophyllum Bunge a. Erostrae Bunge, l.c. 269. pr. part. i.e. *P. subrostrata* tantum.—series Verticillatae Steven sensu Benth. subseries 2. Brevirostres Benth. (1846) pr. minore part.—tribus Verticillatae Maxim. (1888) pr. part. i.e. quoad series, Platyrrhynchae, series Superbae et series Lyratae Maxim.,—sect. Bidentatae A. Oppositifoliae Prain (1890)—sect. Bidentatae verticillatae Bonati (1910); Limpricht (1924)

Folia caulina generatim verticillata interdum opposita raro in unica planta ternatim verticillata et saepe infima parte opposita admixta. Inflorescentia spicata, aut laxa aut condensata interdum racemosa vel subcapitata. Calyx vulgo 5-dentatus, dentibus forma diversis, raro bilobatus, Galea corollae saepe longe saccata, apice breviter rostrata (subsect. Ikomanae) vel erostrata (subsect. Lyratae). Subsect. Ikomanae praesertim series Platyrrhynchae ex serie Comosis abiens et sensim ad seriem Myriophyllas sectionis Hypo-orthorrhyncharum transeunt. Characteribus floris, praesertim galeae dentibus infra apicem ad angulum inferiorem, a gregibus supra indicatis utroque distinguendae.

Subsectiones duae inter sese separandae.

Subsect. 1. **Lyratae** (Maxim) Hurusawa, stat. nov.—series Lyratae Maxim. l.c. 12: 781, 869 (1888)

Series 1. Melampyrifoliae Bonati (1808); Prain (ut Melampyrifolia) (1890); Limpricht (ut Melampyriflorae) (1924)—series Lyratae Maxim. (1888) pr. part.

Galea labium fere aequans infra apicem unidenticulata. Folia caulina omnia verticillata.

Series 2. Lyratae Maxim. sensu stricto; Prain (1890)

Galea longe saccata infra apicem uni-plūri-dentata labium magis superans. Folia caulina opposita ternatim verticillata intermixta.

Subsect. 2. *Ikomanæ* Hurusawa, subsect. nov.

Galea corollae fronte breviter rostrata, rostro lato a vertice porrecto evidenter ad inferiorem angulum bidenticulato. Folia caulina 4-natim verticillata. Labium ad galeam accumbens et eam aequans (series Superbae et series Rigidae) vel e galea rectangulo-patens et eam superans (series Platyrrhynchae) Typus huius subsectionis *P. Ikomai* Sasaki.

Series 1. Superbae Maxim.

Series 2. Rigidae Prain—series Platyrrhynchae Maxim. pr. part. quoad *P. rigida* et *P. compioniaefolia*.

Series 3. Platyrrhynchae Maxim. sensu stricto.—series Myriophyllae Maxim. (1877) pr. part. nec (1888)—series Amaenae Maxim. (1877) pr. part. quoad *P. subrostrata*.

Series 4. *Ikomanæ* Hurusawa series nov.

Galea corollae fronte verticali porrecta in rostrum breviter acuminatum apice bidenticulatum continua. Calyx saccatorus fauce 2-lobatus dentibus utrimque singulis praeditus. (Dentes, in *P. Ikomai*, apicem versus dilatati et margine serrulati). Caulis simplex, foliis verticillatis 4-natis pinnati-sectis. Galeae forma ad sect. Rhyncholopham (uti series Racemosae Prain) vergunt, vel alio sectionem Hypo-orthorrhynchas (uti series Myriophyllae) spectantes, sed dentibus distinctis apparatis a sectionibus supra indicatis utroque abhorrent. Affinitate comparata, ex serie Comosis sectionis Lophodontis abeuntes et per sectionem Hypo-orthorrhynchas ad sectionem Orthorrhynchas praesertim in subsectionem Euorthorrhynchas Prain transeunt. Typus. *Pedicularis Ikomai* Sasaki in Trans. Nat. Hist. Soc. Formos. 20: 164. (1930) Nom. Jap. Ikoma-so. Hab. Formosa.