Hiroshi HARA*: Critical notes on some type specimens of East-Asiatic plants in foreign herbaria (1)

原　寛*: 欧米にある東亜植物基準標本の検討 (1)

In the summer of 1954, I had an opportunity to investigate many authentic materials of East-Asiatic plants, especially Japanese ones, in European and American herbaria. As the result of this study, I have to change currently accepted interpretation of various species in many cases, and I will publish my opinion on those plants in this series of papers, aiming to fix their scientific names. Critical comparisons between the Japanese plants and continental Asiatic ones are much needed in future.

Here I wish to express my most cordial thanks to all persons in charge of the following herbaria who gave me facilities for examining specimens.

Muséum National d'Histoire Naturelle at Paris; Thunberg Herbarium of Uppsala University; Naturhistoriska Riksmuseet at Stockholm; Botaniska Trädgärden at Göteborg; Herbarium of Lund University; Rijksherbarium at Leiden; Botanical Museum and Herbarium at Utrecht; Royal Botanic Gardens at Kew; British Museum of Natural History at London; Royal Botanic Garden at Edinburgh; Smithsonian Institution at Washington, D. C., and Herbarium of Harvard University.

1) **Smilax trinervula** Miquel. On mountains and hills of middle Honshu, there is a dwarf species of *Smilax* which is called 'Sarumame' in Japanese. It is closely allied to *Smilax China* L. in the common sense, but differs from the latter in having erect (generally less than 30 cm high) slender, zigzag, and less spiny stems, smaller (often less than 4 cm long) and elliptic leaves with three main nerves, very short (less than 3 mm long) tendrils, and 1-4-flowered short racemes with linear-caudate bracteoles.

The plant was once referred to *S. japonica* A. Gray, but the type of *S. japonica* in the Harvard University proves to be merely a form of *S. China*. The eariest name for 'Sarumame' is *S. trinervula* Miquel, as Makino correctly identified it in 1895. The type specimen of *S. trinervula* in the Rijksher-

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barium at Leiden is a small sterile branch with three leaves only. It was sent to Siebold by a Japanese under the Japanese name 'Sarumame,' and it was probably collected by Keisuke Itō around Nagoya where this plant occurs commonly, and can not be the origin of China.

Smilax trinervula Miquel in Versl. Med. Kon. Akad. Wetens. ser. 2, **2**: 87 (1866); in Ann. Mus. Bot. Lugd.-Bat. **3**: 150 (1867)—Makino in Bot. Mag. Tokyo **9**: (112) (1895).

S. China var. *trinervula* (Miq.) Makino in Bot. Mag. Tokyo **14**: 184 (1900) —Matsum., Ind. Pl. Jap. **2** (1): 213 (1905).

'*S. japonica* A. Gray' sensu Nakai in Journ. Arnold Arbor. **5**: 72 (1924).

S. Sarumame Ohwi in Act. Phy. Geo. **6**: 149 (1937); Fl. Jap. 325 (1953).

2) **Corylopsis Kesakii** Sieb. et Zucc. The name *Corylopsis Kesakii* was adopted by Nakai in Journ. Jap. Bot. **15**: 737 (1939) for 'Kirishima-midzuki' which had been called as *C. glabrescens* Franch. et Sav. At Leiden there are two sheets of the specimen of *C. Kesakii* which were collected by 'Kesak.' Although they are sterile, Miquel in Ann. Mus. Bot. Lugd.-Bat. **3**: 207 (1867) apparently supplied the diagnosis of *C. Kesakii* based on these specimens, by which the name was validated. They are not the same as *C. glabrescens* but are sterile shoots of *C. spicata* Sieb. et Zucc., which were probably collected from the cultivated plant and not from high mountains of Kiusiu. G. Koidzumi examined the specimens in 1925, and identified them correctly, but he has not published his identification.

Thus *C. Kesakii* Sieb. et Zucc. ex Miquel becomes a synonym of *C. spicata*, and the correct name for 'Kirishima-midzuki' is *C. glabrescens* Franch. et Sav.

3) **Geranium japonicum** Franch. et Sav. and **G. Krameri** Fr. et Sav. Having examined the type of *G. japonicum* Franch. et Sav. at Paris, Nakai in 1935 interpreted it as 'Tachi-fûro.' In my notes on the Japanese species of *Geranium* in 1948, however, I called the attention to the fact that the original description of *G. japonicum* does not agree with 'Tachi-fûro' in the hairiness. The type specimen of *G. japonicum* at Paris is a flowering specimen labeled as 'in monte Hakone, Savatier no. 2446 bis.' It is not 'Tachi-fûro,'

but is a glabrescent form of *G. eriostemon* Fischer var. *Reinii* (Fr. et Sav.) Maxim. Its pedicels and sepals are densely pubescent with short hairs and also with long patent glandular hairs which are slightly shorter than those in the typical form of f. *Onoei* (Fr. et Sav.) Hara.

The correct name for 'Tachi-fûro'is *G. Krameri* Franch. et Sav. as follows:

Geranium Krameri Franch. et Sav., Enum. Pl. Jap. **2**: 306 (1877).

'*G. japonicum* Franch. et Sav.' sensu Nakai in Bot. Mag. Tokyo **49**: 351 (1935)—Hara in Journ. Jap. Bot. **22**: 167 (1948) ; Enum. Sperm. Jap. **3**: 2 (1954) —Ohwi, Fl. Jap. 703 (1953).

Historical Specim. Examined. Honshu: in prov. Simosa (Kramer 1873, Savatier no. 2006, Holotype of *G. Krameri*) ; ibid. (Kramer 1872, 2 sheets, a single branch belongs to f. *adpressipilosum*).

f. **adpressipilosum** (Hara) Hara, comb. nov.

G. japonicum var. *adpressipilosum* Hara in Journ. Jap. Bot. **22**: 168 & 171 (1948).

G. japonicum f. *adpressipilosum* (Hara) Hara, Enum. Sperm. Jap. **3**: 2 (1954)

4) **Oxalis japonica** Franch. et Sav. and **O. Griffithii** Edgew. et Hook. f. The name *Oxalis japonica* Franch. et Sav. has hitherto been applied to a Japanese race of *O. Acetosella* group which I treated as subsp. *japonica* in 1952, and in the original publication Franchet himself cited the Japanese name and illustrations of that race. The holotype (Savatier no. 2816) of *O. japonica* is a very poor specimen without rhizome collected by Ono, which consists of detached 2 flowering scapes with a single flower and 4 small leaves. It is unexpectedly *O. Martiana* Zuccarini which is naturalized to Japan from South America. Its leaflets are obcordate and round at the top of lobes and are glandular dotted on the margin, its sepals have two distinct oblong glands near the top, and its petals are purple. Franchet's description of rhizomes must be based on the Japanese illustration. Franchet identified the specimens of the Japanese race of *O. Acetosella* at Paris sometimes with *O. Acetosella* itself and sometimes with *O. obtriangulata* by mistake or with *O. japonica*.

I compared the Japanese race of *O. Acetosella* with many Chinese and Himalayan specimens, and come to the conclusion that they all are the same as *Oxalis Griffithii* Edgew. et Hook. f., of which type specimen I examined at

Kew. *O. Griffithii* in Himalaya and China is very variable in the shape of rhizomes and leaflets, and in the hairiness, but the limit of its variations coincides just with that of the Japanese race. The type of *O. Griffithii* has long creeping rhizomes, and the same form occurs in China and Japan too. Some Japanese plants have shorter rhizomes densely covered imbricately with the basal part of petioles, and such a form is found also among continental materials. The shape and hairiness of leaflets of the Himalayan specimens agree well with those of the Japanese ones. The flowers of the Japanese plants are generally white, but often rosy or purple (f. *rubriflora* Makino). *O. leucolepis* Diels and *O. hupehensis* Knuth may not be specifically separated from *O. Griffithii* too.

O. Griffithii is generally distinguished easily from *O. Acetosella* in having thicker rhizomes, larger and more hairy leaflets with divaricate and obtuse lobes, but intermediate forms between the two are sometimes found in Himalaya as well as in China and in Japan, as I have pointed out in 1952. So I wish to treat *O. Griffithii* as a geographical subspecies of *O. Acetosella* as follows:

Oxalis Acetosella L. subsp. **Griffithii** (Edgew. et Hook. f.) Hara, stat. nov.

O. Griffithii Edgeworth et Hooker fil. in Hooker f., Fl. Brit. Ind. **1**: 436 (1872)—Knuth in Engl., Pfl.-reich IV-130, Ht. 95, 234 (1930).

O. Acetosella var. *japonica* Makino in Bot. Mag. Tokyo **22**: 171 (1908), excl. basonym—Ohwi, Fl. Jap. 705 (1953).

O. Acetosella subsp. *japonica* Hara in Journ. Fac. Sci. Univ. Tokyo sect. 3, **6**: 82 (1952), excl. basonym; Enum. Sperm. Jap. **3**: 8 (1954).

Historical specimens examined. Japan: in monte Kuruma Yama (Rein, Savatier no. 2816, ut *O. Acetosella*); in montibus Hakone (Savatier no. 3374, ut *O. obtriangulata*); in monte Fudsiyama (Savatier 1871, ut *O. obtriangulata*); in Paris.

China: Yunnan, Long-ki (Delavey no. 4917 & 5010); Tali range (Forrest no. 4286).

India: Bhotan? (Griffith, Holotype of *O. Griffithii* in Kew); Sikkim 8-11000 ped. (Hooker f.); Khasia 5-7000 ped. (Hooker f.); Manipur (Watts no. 6442).

Dist. Japan! (Honshu, Shikoku & Kyusyu), Formosa!, central & western China!, northern Burma, and eastern India! (west to Sikkim & Khasia).

5) **Mitrasacme pygmaea** R. Brown and **M. alsinoides** R. Brown When I referred the Japanese species called 'Ai-nae' to *Mitrasacme nudicaulis* in 1940, I mentioned that it will probably be conspecific with *M. pygmaea* of Australia. In the British Museum I have examined the type of *M. pygmaea* R. Brown, and confirmed that it agrees exactly with *M. nudicaulis* of China and Japan. It is a small annual having stems covered with very short hairs, its upper two pairs of leaves are approximate, oblong-ovate, and often much larger than the lower ones, and its flowers are small (3–4 mm long). This plant is widely distributed in south-eastern Asia.

M. malaccensis Wight differs slightly from this plant in having several pairs of narrower leaves of equal size, and may better be treated as a variety of the species. *M. capillaris* Wallich is nearer to *M. pygmaea* than to *M. malaccensis.*

As I have also noticed in 1940, *M. polymorpha* R. Brown is a distinct perennial species from *M. pygmaea.* Its stems are woody, attaining 20 cm or more high with longer patent hairs, densely branched and densely leaved, and its leaves are linear (ca. 1 mm wide) and long-ciliate at least on the lower margin, and its flowers are larger (5–6 mm long).

The other species of *Mitrasacme* on Japan is generally identified as *M. alsinoides* R. Brown of Australia. In this case, however, the Australian plant is not quite the same as the East-Asiatic one. The leaves of the Australian plant are ovate and acute attaining 7 mm long 4 mm wide, minutely ciliate on the lower margin, and its flowers are often larger. Whereas the plants from Japan as well as those from Malaysia and India are nearly glabrous, and have narrower oblong leaves and smaller flowers. But intermediate forms are found in Burma and Malaysia, so I think that it is proper to treat this East-Asiatic plant as a variety of *M. alsinoides.*

Mitrasacme pygmaea R. Brown, Prodr. Fl. Nov. Holl. **1**: 453 (1810).

M. capillaris Wallich ex Roxburgh, Fl. Ind. ed. Carey, **1**: 420 (1820); Cat. no. 4348 (1831).

M. nudicaulis Reinwardt ex Blume, Bijdr. Fl. Neder. Ind. **14**: 849 (1826)—Hara in Journ. Jap. Bot. **16**: 155 (1940); Enum. Sperm. Jap. **1**: 130 (1949)—Ohwi, Fl. Jap. 945 (1953).

M. chinensis Grisebach in Meyen, Observ. Bot. 51 (1843).

Dist. Japan! (Honshu to Ryukyu), Korea!, Formosa!, China!, Indo-China, Siam, India!, Malaysia (Malay, Philippines!, Borneo, Sumatra, Timor!), Micronesia!, Australia!, and New Caledonia!

var. **malaccensis** (Wight) Hara, stat. nov.

Limnophylla campanuloides Bentham ex Wallich, Cat. no. 3908 (1831), nom. nud.

Mitrasacme malaccensis Wight, Icon. Pl. Ind. Or. **4**: 15, t. 1601. 2 (1850).

Dist. Southern Burma, and Malay.

Mitrasacme alsinoides R. Brown, Prodr. Fl. Nov. Holl. **1**: 453 (1810).

Dist. Australia!, New Guinea, and Bali!

var. **indica** (Wight) Hara, stat. nov.

M. indica Wight, Icon. Pl. Ind. Or. **4**: 15, t. 1601. 1 (1850).

M. pusilla Dalzell in Hooker, Journ. Bot. & Kew Misc. **2**: 136 (1850).

M. crystallina Griffith, Not. Pl. Asia. **4**: 87 (1854); Icon. Pl. Asia. t. 383, f. 2 (1854).

'*M. alsinoides* R. Brown' sensu Hara, Enum. Sperm. Jap. **1**: 129 (1949)—Ohwi, Fl. Jap. 945 (1953).

Dist. Japan! (Honshu to Ryukyu), Korea!, Formosa!, China!, Indo-China, Siam!, Burma!, India!, and Malaysia (Malay, Philippines!, Borneo, Java).

6) **Mosla dianthera** (Hamilt.) Maxim. *Mosla dianthera* of northern India matches well with *M. grosseserrata* Maxim. of temperate East-Asia in all respects. The shape of leaves, the hairiness, the shape of calyces, and the reticulation on the surface of seeds are the same in both plants.

Mosla dianthera (Hamilt.) Maximowicz in Bull. Acad. Sci. St.-Pétersb. **20**: 457 (1875).

Lycopus dianthera Hamilton ex Roxburgh, Fl. Ind. ed. Carey, **1**: 145 (1820); ed. 2, **1**: 144 (1832).

Cunila Buchanani Sprengel, Syst. Veg. **1**: 54 (1824).

C. nepalensis D. Don, Prodr. Fl. Nepal. 107 (Feb. 1825).

Melissa nepalensis (Don) Bentham in Wallich, Pl. Asia. Rar. **1**: 66 (1830).

Mosla ocymoidcs Hamilton ex Bentham, l. c. 66 (1830), pro syn.—Mukerjee in Rec. Bot. Surv. India **14**: 101 (1940).

Moschosma ocimoides Reichb. in Wallich, Cat. no. 2712 (1831), nom. nud.

Hedeoma napalensis (Don) Bentham, Labiat. Gen. Sp. 366 (1832-6)—Jacquemont, Voy. Ind. 133, t. 138 (1844).

Mosla grosseserrata Maximowicz, l. c. 458 (1875).

M. formosana Maxim., l. c. 459 (1875).

M. lysimachiiflora Hayata, Icon. Fl. Formos. **8**: 104 (1919).

Orthodon grosseserratum (Maxim.) Kudo in Mem. Fac. Sci. & Agr. Taihoku Univ. **2** (2) : 79 (1929)—Hara. Enum. Sperm. Jap. **1**: 216 (1949)—Ohwi, Fl. Jap. 1012 (1953).

O. formosanum (Maxim.) Kudo, l. c. 79 (1929).

O. diantherus (Hamilt.) Handel-Mazzetti, Symb. Sin. **7** (4) : 933 (1936).

Dist. Japan! (Hokkaido to Ryukyu), Korea!, Ussuri, Amur!, Manchuria!, China!, Formosa!, Indo-China, Burma, northern India! (Bengal, Khasia Mts., Himalaya west to Kashmir), Philippines, and Sumatra!

As regards the generic name, I adopted *Orthodon* Bentham ex Oliver (1865) in my Enum. Sperm. Jap. Part 1 (1949) following the opinion of Kudo (1929). But it is a later homonym of *Orthodon* Bory ex Schwaeger, Suppl. **2**: 23 (1823) (Musci), so *Mosla* Hamilton ex Maxim. (1875) is the correct generic name.

Thus the plant which is very near to *M. dianthera*, but has leaves pubescent with long soft hairs, and lower lobes of the calyx narrower and more pointed, should be called as follows:

Mosla hirta Hara in Journ. Jap. Bot. **12**: 44 (1936), pro syn.

Orthodon hirtum Hara, l. c. 44 (1936); Enum. Sperm. Jap. **1**: 216 (1949).

Dist. Honshu!, Kyusyu!, southern Korea!, and Formosa!.

1954 年 7 月から 10 月にかけて欧米の重要な標本館で東亜植物のタイプスペシメンを検討する機会を得た。この結果色々な種類について，近年うけいれられている解釈と異つた結論になつたものも多いので，これらについて順次私の見解を発表して行きたいと思う。

特に感じられるのは，これまで日本の植物はアジア大陸のものとの比較が充分に行われなかつた点で，今後研究が進むにつれて，日本のものがヒマラヤ或は中南支産と同一か又はその地方的変異と見なされる場合がかなり多く出てくることが予想される。これらの問題はなるべく我々の手で今後解明して行きたい。

又オランダ，ライデン国立標本館には伊藤圭介翁が主に尾張附近で採集しシーボルトに送つたと思われる標本が予想以上に多数所蔵されていて，これらが Miquel によつてシーボルト自身の採品の様に引用されていたり，産地が日本字のため誤記されていたりして種の同定を困難にしている場合がしばしばある。

1) サルマメ　本種の学名は既に 1895 年に牧野先生が考定された通り *Smilax trinervula* Miq. が正しい。その基準標本はライデンにあり，和紙にはさんだ三葉をつけた一枝であつて，'サルマメ 花師以為漢種非' と墨で記してある。多分伊藤圭介翁が名古屋附近で採られたものと思われ支那原産ではない。

2) キリシマミズキ　近年はこの学名に *Corylopsis Kesakii* Sieb. et Zucc. が用いられるが，ライデンにある Kesak (二宮敬作?) 採集の基準標本はトサミズキの若枝であり，キリシマミズキではない。

3) タチフウロ　中井先生 (1935) によつて *Geranium japonicum* Fr. et Sav. はタチフウロであるとされたが，原記載には腺毛があると記され符合しないことは私が本誌上 (1948) で指摘した。今回パリーでその基準標本を見ると，それはグンナイフウロの毛のやや少い形であつたので，タチフウロの学名は *G. Krameri* Fr. et Sav. が正しいことになる。

4) ミヤマカタバミ　*Oxalis japonica* Fr. et Sav. は今日までミヤマカタバミと考えられ，Franchet 自身も原記載に本草図譜，草本図説のミヤマカタバミの図を引用している。しかし不幸にもパリーにある基準標本は花茎と葉とがばらばらになつたムラサキカタバミであつた。ミヤマカタバミは根茎や葉の形に変化が多いが，同様な変異が支那中西部やヒマラヤの *O. Griffithii* Edgew. et Hook. f. にも見られ，この両者は同一と考えられる。コミヤマカタバミとの関係は日本でも時に中間形をみるが，大陸でも往々中間形があり同一種中の地方亜種として取扱いたい。

5) ヒメナエとアイナエ　ヒメナエが *Mitrasacme nudicaulis* Reinw. にあたることは，私が本誌 (1940) でのべ，更にそれがオーストラリアの *M. pygmaea* R. Brown と同一であろうと記した。大英博物館で後者の基準標本をみて両者が全く同じであることを確かめ，この種が広く南方に分布していることを知つた。一方アイナエはオーストラリアの *M. alsinoides* R. Brown より葉ほそく無毛でその変種 var. *indica* (Wight) Hara として扱う。この形はインドから東南アジアに広く分布している。

6) ヒメジソ　これはヒマラヤに広く分布している *Mosla dianthera* (Hamilt) Maxim. と同一種である。なお属名には工藤博士 (1929) 以来 *Orthodon* が用いられたが，藤類により古い同名があるので使用できず，やはり *Mosla* が正しい。従つてヒメジソ属の諸種は *Mosla* の属名の下の学名を用いることになる。