Hiroshi Hara*: **Critical notes on some type specimens of East-Asiatic plants in foreign herbaria (7)**

原 寛*: 欧米にある東亜植物基準標本の検討 (7)

18) **Fraxinus Sieboldiana** Blume and **F. sambucina** (Bl.) Koidzumi. *Fraxinus* common in Japan with terminal inflorescences and 4-petaled flowers was classified by Nakai in 1927 into two species, i. e. *F. Sieboldiana* with var. *serrata* and var. *angustata*, and *F. sambucina* with var. *pubescens*. In 1934, Hatusima regarded var. *angustata* as a species distinct from *F. Sieboldiana* var. *serrata*, but Nakai (1935), considering var. *angustata* merely as an extreme form, opposed Hatusima's opinion, and Ohwi (1952) also followed Nakai's view.

This group tends to be androdioecious, and is pretty variable in the shape and size of leaflets too. In this group, however, three races can be clearly distinguished. A common race in the *Castanea* belt of the lowland ranging from Honshu south to Kyushu and to a southern half of Korea has leaves with 2 (rarely 3) pairs of leaflets on the flowering branch, leaflets almost entire or with obscure depressed serration and with 5-8 pairs of lateral veins, and young branches, axes of inflorescence, and petioles are densely covered with very minute patent hairs and minute often stipitate glands under lens, and ovate or elliptic buds are greyish covered with scurfy dots, or blackish and almost smooth or with resinous dots. Its leaflets are often minutely dotted with yellow glands beneath, and a form with leaves densely dotted beneath was named as f. *Tobana* (Honda) Koidzumi. This race was treated by Hatusima as *F. angustata*, but Blume's *Fraxinus Sieboldiana* as well as its var. *angustata*, of which I have examined the types at Leiden, are certainly identical with this race.

Nakai's var. *serrata* is growing mainly in the *Fagus* belt of mountain districts of Japan northwards to Hokkaido and southern Kuriles. Its young branches, axes of inflorescence and petioles are glabrous or pilose with patent stiff hairs; its leaflets are generally distinctly serrate and sometimes larger; and its buds are elliptic or ovate, blackish, and almost smooth or pilose with patent stiff unicellular (rarely bicellular) hairs, and have closed bud-scales (Fig. 6. b). The degree of hairiness is variable in this race. A form with hairy buds was described as *F. lanuginosa* Koidzumi, which type in the Rijksherbarium at Leiden was compared

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with a specimen recently collected in the Chichibu district through the kindness of Dr. Steenis. *F. Sieboldiana* var. *pubescens* and var. *Koiei* are hairy on buds, branches, and petioles, and *F. sambucina* var. *velutina* from central Honshu is an extreme form which is hairy even on both surfaces of leaflets and on branches of last year's growth. Specimens from Hokkaido, are generally glabrous throughout, and belong to var. *serrata* in the strict sense.

The third race is *F. sambucina* in Nakai's meaning. It is near to a glabrous form of var. *serrata*, and its branches, inflorescences, and leaf-axes are quite glabrous, and its leaflets are distinctly serrate. However, as pointed out by Inokuma in 1931, this race is characterized in having open outer bud-scales. Its buds are broad ovate-cordate and often dark reddish brown, and nearly glabrous or minutely rusty-dotted, and its bud-scales are densely lanuginose with rusty wooly hairs on the margin and inside (Fig. 6. a). Its leaves on the flowering branch have generally 3 (sometimes 2 or 4) pairs of leaflets, and those on the vigorous shoot have often 4–5 pairs of leaflets. Its leaflets are often larger and elongate, and have (6) 8–13 pairs of lateral veins. This race occurs at the highest altitude (mainly 1400–1700 m) among the three races, and is found in the upper part of the *Fagus* belt of central Honshu. For this race Nakai adopted Koidzumi's *F. sambucina* which was based on *F. Sieboldiana* var. γ. *sambucina* Blume (1850). Blume's type specimen (No. 907. 273–79) at Leiden, however, does not belong to the group in question, but it is a sterile branch of *F. Spaethiana* Lingelsheim, although in a small packet attached to the sheet, a small branch of *F. Sieboldiana* var. *serrata* is included. So I here describe this third race as a new species, *F. apertisquamifera* Hara.

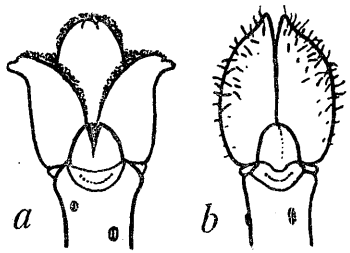

Fig. 6. Buds of a. *Fraxinus apertisquamifera*, and b. *F. lanuginosa*. ×3.

These three races are separable by several morphological characters and occupy different habitats, but they agree with each other in the characters of flowers and fruits, and may be regarded as subspecies of a single species, *F. Sieboldiana*, by some taxonomists.

Fraxinus longicuspis Sieb. et Zucc. is very often confused with the group of *F. Sieboldiana*, but it is a well-marked species with apetalous flowers, and its buds, its young branches, the upper side of its leaf-axes, and the axes of its inflores-

cences are densely clothed with brownish somewhat crisped multicellular hairs, and its lateral leaflets have more distinct petiolules. The specimens of *F. longicuspis* Sieb. et Zucc. (No. 908. 158-24 and No. 908. 158-25 in part, in Herb. Leiden) consisting of fruiting branches are certainly a narrow-leaved form of the specie here mentioned, but other specimens so named (No. 908. 158-35 and 908. 158-25 in part) with flowering branches are not true *F. longicuspis*, and belong to *F. Sieboldiana*.

Fraxinus Sieboldiana Blume, Mus. Bot. Lugd.-Bat. **1**: 311 (1850), e typo in Herb. Leiden.

F. Sieboldiana var. *angustata* Blume, l. c. (1850), e typo—Hara, Enum. Sperm. Jap. **1**: 115 (1949). *F. longicuspis* var. *subintegra* Koidzumi in Bot. Mag. Tokyo **28**: 286 (1914), e typo in TI. *F. Tobana* Honda (1932), e typo in TI. *F. angustata* (Bl.) Hatusima (1934). *F. Sieboldiana* var. *trijuga* Nakai in Bot. Mag. Tokyo **49**: 421 (1935), e typo in TI. *F. Sieboldiana* var. *barbinervis* Nakai (1942).

Dist. Honshu, Shikoku, Kyushu, and South Korea.

Fraxinus lanuginosa Koidzumi in Bot. Mag. Tokyo **40**: 342 (1926), e typo in Leiden. (Fig. 6, b)

F. Sieboldiana var. *pubescens* Koidzumi in Bot. Mag. Tokyo **38**: 98 (1924), e typo in KYO. *F. sambucina* var. *pubescens* (Koidz.) Nakai (1927). *F. sambucina* var. *velutina* Nakai (1927), e typo in KYO. *F. Sieboldiana* var. *Koiei* Honda (1940), e typo in TI.

var. **serrata** (Nakai) Hara, comb. nov.

F. Sieboldiana var. *serrata* Nakai, Tr. & Shr. Jap. ed. 2, 391, f. 186 (1927)—Hara, Enum. Sperm. Jap. **1**: 116 (1949). *F. Sieboldiana* subsp. *serrata* (Nakai) Hara, mss.

Lectotype. Nakai, Tr. & Shr. Jap. ed. 2, 391, f. 186 (1927).

Dist. South Kuriles, Yezo, Honshu, Shikoku, Kyushu (on mountains), and South Korea?

Fraxinus apertisquamifera Hara, sp. nov. (Sect. Ornus) (Fig. 6. a)

'*F. sambucina* Koidzumi' sensu Nakai, Tr. & Shr. Jap. ed. 2, 393, f. 187 (1927), excl. syn.-Inokuma in Bull. Tokyo Imp. Univ. Forest. **14**: 81 (1931)-Ohwi, Fl. Jap. 944 (1953), excl. syn. et var. — *F. Sieboldiana* subsp. *apertisquamifera* Hara, mss.

Arbor andro-dioica. Rami fusco-grisei, hornotini ab initio glabri. Gemmae ovato-cordatae brunneae vel fuscae, glabratae vel ferrugineo-punctatae, squamae exteriores apice mox apertae margine et intus dense ferrugineo-lanuginosae. Folia 2-3 (raro 4)-jugo-pinnatae in ramo florifero et 3-5-jugo-pinnata in ramo robusto sterile; petioli rachisque glabri supra canaliculati; foliola oblonga—ovato-oblonga longe acuminata distincte incurvo-serrata 3-10 (12) cm longa 1.5-4 (5) cm lata herbacea, lateralia sessilia vel brevissime petiolulata inferiora minora oblongo-ovata,

nerviis (6) 8–12-jugis supra leviter depressis, infra pallide viridia in parte inferiore secus nervis primariis elevatis dense patenter pubescentia. Paniculae terminales glabrae. Flores ut in *F. Sieboldiana*. Petala 4 lineari-spathulata alba. Samarae oblanceolatae apice obtusae vel leviter emarginatae 2.5–3 cm longae 3–5 mm latae.

Nom. Jap. Miyama-aodamo (nom. nov.)

Type. Honshu. Prov. Musashi: Jizô-tôge, Mt. Mitsumine, Chichibu (H. Hara, Sep. 8, 1955 in Herb. TI).

Dist. Middle Honshu (on mountains ca. 1000–1800 m high).

19) Ficus pumila L., Camellia japonica L. and Smilax China L. in the Linnaean Herbarium. When Linnaeus published these names in his Species Plantarum ed. 1 (1753), he seems to describe them mainly based on two elements, i. e. the descriptions and illustrations in Kaempfer's Amoenitatum Exoticarum (1712), and the specimens in his herbarium now preserved in London. As the Kaempfer's plants can easily be identified from its descriptions and illustrations, these Linnaean names have generally been interpreted from the Kaempfer's plants, and their applications have become established for a long time.

Ficus pumila L. has been applied to a scandent species now called 'Ô-itabi' in Japanese. Linnaeus in Sp. Pl. 1060 (1753) as well as in Amoen. Acad. **1**: 30 (1749), cited Kaempfer's Amoen. 803, t. 804. The Kaempfer's plant which was called 'Inu Itabu' by him is undoubtedly identical with 'Ô-itabi' in the current meaning. The specimen in the Linnaean Herbarium, however, is not viny 'Ô-itabi', but it is a fruiting branch of *F. erecta* Thunberg, an erect shrub now called 'Inu-biwa' in Japanese. It was (later ?) identified by Linnaeus himself with *Ficus pumila*, but J. E. Smith had already noticed the fact, and remarked ' ? erecta Thunb. ?' on the sheet. It is interesting to note that Kaempfer had recognized these two plants separately, as 'Inu Itabu' and 'Itabu'. In Kaempfer's original manuscript (No. 2914) of Amoen. Exotic. which I could examine in the manuscript section of the British Museum in 1954 by the courtesy of Mr. W. T. Stearn, both 'Inu Itabu' and 'Itabu' were finely illustrated on p. 30 t. XXXIII and p. 31, t. XXXIV respectively, but the latter figure of 'Itabu' which is certainly *F. erecta* was omitted when published.

As the original description of *F. pumila* L. used the phrase 'caule repente', it cannot be *F. erecta*. So *F. pumila* L. should be typified by Kaempfer's book, and the specimen of *F. pumila* (No. 1240. 11) in the Linnaean Herbarium is not to be considered as the type specimen. No specimen of this species is found in the Kaempfer's collection of Japanese plants.

Camellia japonica L. is another similar case. Linnaeus published it in Sp. Pl. 698 based solely on Kaempfer, Amoen. 850, t. 851, and repeated Kaempfer's diagnostic phrases, 'Tsubakki montanus s. sylvestris, flore roseo simplici', and then cited a cultivated form with large rose double flowers also based on Kaempf. Amoen. 852 as a variety β. without giving an epithet. So it is quite natural that *C. japonica* (var. *japonica*) in the strict sense has been interpreted as a wild form with rose single flowers, i. e. var. *spontanea* Makino.

The only specimen (No. 878. 1) in the Linnaean Herbarium, however, is a branch of f. *Otome* Makino (var. *rosacea* Curtis) with a double flower about 6 cm in diameter, and it bears the Linnaean handwriting '*Camellia japonica*', and is considered to have been there since 1753 when he first published the name. But this specimen clearly contradicts to the original diagnose, so it can not be regarded as the type. It is also to be noted that the specimen of *C. japonica* in the Kaempfer's collection (Herbarium Sloane No. 211) preserved in the British Museum has a double flower of the anemone-form (var. *anemoniflora* Sims), and it cannot be the type too. Thus no type specimen of *Camellia japonica* is extant, and the species should be typified by Kaempfer's description and illustration.

Smilax China L. is a little more complicated case. Besides Kaempfer, Amoen. 781, t. 782, Linnaeus in Sp. Pl. 1029 cited also Bauhin, Pinax 296 (misprinted as 896) and Plukenet, Amalth. 101, t. 408, f. 1. Judging from these literatures, the plant has been identified with a common species of *Smilax* in China and Japan with spiny zigzag stems, roundish leaves, and red berries which is called 'Sarutori-ibara' in Japanese. Its ligneous rhizomes together with those of *Heterosmilax* were used for medicinal purposes as Radix China.

In the Linnaean Herbarium, there have been two sheets (No. 1182. 6 & 7) of *Smilax China* since 1753. As Linnaeus supplied in this case a short diagnose of his own, 'Petioli *bidentati*. Folia *ovato-cordata*, *obtusa cum acumine*', the specimens might be one of the elements which constituted his concept of *Smilax China* when it was published. They, however, are unfortunately not the same as the plant mentioned above, and consist of spineless sterile branches with ovate acutish leaves, and they may belong to a species of *Heterosmilax*. While a specimen on page 26 of the Kaempfer's collection under the name 'Sankira' is certainly the plant generally called *Smilax China* (Sarutori-ibara).

Under the circumstances I wish to select the Kaempfer's plant as the lectotype of *Smilax China* so as to preserve the long established usage.

Ficus pumila L., Sp. Pl. ed. 1, **2**: 1060 (1753), excl. specim. in Herb. L.—Maxim. in Bull. Acad. Sci. St.-Pét. **27**: 554 (1882)—Makino in Bot. Mag. Tokyo **18**: 152 (1904).

Lectotype. Kaempfer, Amoen. Exot. 803, t. (804) (1712).

Camellia japonica L., Sp. Pl. ed. 1, **2**: 698 (1753), excl. specim. in Herb. L.—Hara, Enum. Sperm. Jap. **3**: 159 (1954).

Thea japonica α. spontanea Makino in Bot. Mag. Tokyo **22**: 160 (1908).

Lectotype. Kaempfer, Amoen. Exot. 850, t. (851) (1712).

Smilax China L., Sp. Pl. ed. 1, **2**: 1029 (1753), excl. specim. in Herb. L.—Maxim. in Bull. Acad. Sci. St.-Pét. **17**: 171 (1872), excl. syn. *S. ferox* Wall. et *S. Sebeana* Miq.—Nakai, Fl. Sylv. Korea. **22**: 102, t. 17 (1939).

S. japonica (Knuth) A. Gray, Narr. Perry Exped. **2**: 320 (1856).

Lectotype. Kaempfer, Amoen. Exot. 781, t. (782) (1712).

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18) アオダモとその近縁種 アオダモ類は仲々変化があつて分類が難しいが，大きく3型に分けられる。一はマルバアオダモ（ホソバアオダモ）で一番低地に普通に産し，本州から九州・朝鮮南部に分布し，若枝・葉柄・花軸などに極めて微細な毛と短腺毛とが密生し，小葉の鋸歯は往々不顕著になり，芽鱗は閉じていて外面に灰色の粉状物があるか又はほぼ平滑になる。初島博士（1934）はこの型を認識して区別されたが，中井博士（1935）はこれに反対され，大井博士も中井博士に従われた。

次にアオダモ（コバノトネリコ）は北海道から九州の主に山地のブナ帯に多く，腺毛はなく，各部が無毛か又は立つた粗毛が散生している。芽鱗は閉じ，黒褐色で無毛か又は立つた粗毛がある。全体殆ど無毛な形が var. *serrata* Nakai にあたり，又特に多毛で芽や2年生の枝，葉の両面にまで粗毛のある形がビロウドアオダモであるが，両形の中間形が多くケアオダモはその一形である。*F. Sieboldiana* Blume の基準標本はこの型ではなく，マルバアオダモである。従つてこの型の種名としては芽に毛の多い形に与えられた *F. lanuginosa* Koidzumi が最も早い。

本州中部（福島県から岐阜県まで，他では不確実）のブナ帯上部にはもう一つの型があり，アオダモの無毛形に似ているが全体粗大で，小葉は花枝で通常3対，嫩枝では時に4-5対，往々長大で脈数も多くなる。この型の最も著しい特徴は，猪熊博士（1931）が指摘された通り，芽の外側の芽鱗が早くから左右に開き，縁や内面に茶褐色の綿毛が密生していることである。中井博士（1927）はこれを小泉博士（1926）のコバシジノキ（*F. sambucina*）にあてられたが，その名の基になつた Blume の基準標本を見ると，それはシオジの無花枝であつた。それ故この型にはミヤマアオダモ（*F. apertisquamifera* Hara）の新名を与える。

19) *Ficus pumila* L., *Camellia japonica* L., *Smilax China* L. の標本 これらの種はリンネ（1753）によつて命名されたが，主に Kaempfer, Amoen. Exot. 中の記事や

図に基いて記載された。それ故 Kaempfer の図と文から判断して，それぞれオオイタビ，ヤブツバキ，サルトリイバラに同定され，それらの学名として一般に用いられている。一方ロンドンのリンネ腊葉庫にはリンネ自身によつて同定された標本が現存するが，それらは意外にもイヌビワ，オトメツバキ及びカラスキバサンキライ属の一種であつた。しかしこれらの標本は原記載と矛盾する性質を持ち，従つて基準標本と見なすことはできず，これらの種は所謂 book species として Kaempfer の書に基いて解釈し今迄通りの意味で使用したい。

○樹木雑記 (杉本順一) Junichi SUGIMOTO: Notes on the trees and shrubs of Japan

1. **ヒメマルバウツギ** (新称) 筆者は昭和 13 年 5 月 26 日駿河国安倍郡梅島村に於てウツギ属の 1 種を採集して比較した所，良くヒメウツギとマルバウツギとの中間の形質を有し，両者の間種と考察した。静岡市の大村敏朗氏は本年 (昭和 30 年) 4 月 25 日三河国新城町に於て同様のものを採集して筆者に提供下さつた。其の学名は既に **Deutzia candelabrum** Rehd. の名があつて，其の記載と一致するので，之を用いることとし，和名は新にヒメマルバウツギと定める。三種の比較は：

E. gracilis Sieb. et Zucc. ヒメウツギ 二年枝は灰色，葉は背緑色の短柄あり，葉質うすく，基部は鋭形又は鈍形，鋸歯は平伏する，星毛は極めて乏少，5-8 岐す。蕚には圧伏星毛を粗生する。花糸に鋭鋸歯あり。

D. candelabrum Rehd. ヒメマルバウツギ 二年枝は淡褐色，花序下の葉は緑色の極微かの柄あり。葉質はやや薄く，基部は円形で，鋸歯は平伏する，星毛はやや密生し，4-6 岐する。蕚には圧伏星毛を密生する。花糸は鋸歯有無混生す。

D. Sieboldiana var. *Dippeliana* C. K. Schn. マルバウツギ 二年枝は赤褐色，花序下の葉は全く無柄で基部は凹形，花なき枝の葉は褐色の短柄あり。葉質はやや厚く細脈が著しい，鋸歯は内曲する，星毛は密生し，3-4 岐する。花序には斜出毛を交へる，蕚には斜立星毛を密布する。花糸は鋸歯を欠く。

2. **ケナシアイヅシモツケ** 静岡県立韮山高等学校教官羽田昌氏は昭和 27 年 6 月 7 日伊豆半島の北西部の鷲頭山でシモツケ属の 1 種の果季の標本を採集して筆者に送られた。翌年 4 月 4 日再び花季の標本を採つて送られ，同年秋に現地を案内下さつて自生を確め調べた所，日本に多い有毛のアイヅシモツケに似て，全体無毛で，葉は広卵を呈し基部は截形である。北村博士の鑑定を頂いた所，ケナシアイヅシモツケ (キタシモツケ) **Spiraea Chamaedrifolia** L. であつて，本品は東亜大陸に多く産し，日本では初めてのものの如くであるから，茲に北村博士及び羽田氏に代つて報告する。伊豆の如き暖地の低い所に自生があることは分布上注目すべきと思う。

3. **ハコネコメツツジ** 本種は葯の裂開口の形だけで *Rhododendron* ツツジ属から分けて *Tsusiophyllum* ハコネコメツツジ属を建てて久しく踏襲されて来たが，筆者は大いに疑念を持ち，コメツツジに極めて近縁のもので，之より変成したもので，ツツジ属中の異端種にすぎぬと考えた。静岡生物同好会通信 4 号 (1952 年 5 月) で *Rhododendron Tsusiophyllum* Sugimoto の組合せを用意して仮発表した。其後大井博士の日本植物誌 (1953) を見ると，属を合併するのは同様なるも其の学名を *Rhododendron Tanakae*