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Hiroyoshi OHASHI: **Variation in *Sambucus javanica* (*Adoxaceae*)**

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Summary: *Sambucus chinensis* Lindl. (*Adoxaceae*) is regarded here as a form of *S. javanica* Blume, because it is distinguishable from the latter only by the red fruits instead of black or blackish purple fruits of the typical form. *Sambucus chinensis* var. *formosana* (Nakai) H. Hara, having slender extrafloral nectaries and var. *pinnatilobata* G. W. Hu with pinnatifid leaflets were recognized at the rank of form of *S. javanica*.

Sambucus chinensis Lindl. (*Adoxaceae*) has been considered as distinct from *S. javanica* Blume. This view by Nakai (1917) has been followed widely in Japan (Hara 1952, 1983, Ohwi 1965a, 1965b, Kitamura 1981, Ohba 1993, Ohashi et al. 2008), China (J. Q. Hu 1988, Hu et al. 2008), and Taiwan (Yang and Chiu 1998). The lectotype of *S. chinensis* Lindl. was designated with a photograph by Hu et al. (2008). However, the species has sometimes been treated as conspecific with *S. javanica* (Kern and Steenis 1951, Fukuoka 1987, Yang and Boufford 2011, Acharya and Mukherjee 2014). *Sambucus chinensis* was distinguished from *S. javanica* by the difference in color of their mature fruits: red in the former but black or blackish purple in the latter. However, color of fruits often varies in *Sambucus* and those variants in fruit-color are recorded as distinct taxa at the rank of form. For example, *Sambucus racemosa* L. subsp. *sieboldiana* (Miq.) H. Hara [f. *sieboldiana*] has typically dark-red fruits, but f. *aurantiaca* (Nakai) H. Hara is characterized in having orange-yellow fruits and f. *nakaiana* Murata has yellow fruits. Therefore, *S. chinensis* should be treated as a form of *S. javanica*.

There are two varieties of *Sambucus chinensis*. Var. *formosana* (Nakai) H. Hara has slender extrafloral nectaries as illustrated by Hara (1983) and Yang and Chiu (1998), but the shape of nectaries of *S. chinensis* and *S. javanica* varies in rounded or somewhat cylindric. Yang and Chiu (1998) included *S. formosana* Nakai in *S. chinensis*. The variety is considered to be a form of *S. javanica*.

Sambucus chinensis var. *pinnatilobata* G. W. Hu was found in Hunan Province in China and was characterized in having pinnatipartite or pinnatisect leaflets (Hu et al. 2008). A similar pattern of variation is known in *S. racemosa* and recognized at the rank of forma, i.e., f. *lacera* (Nakai) H. Hara and f. *dissecta* Murata. Var. *pinnatilobata* should be treated as a form of *S. javanica*.

Sambucus javanica Blume, Bijdr.: 657 (1825); Q. Yang & Boufford in Fl. China **19**: 612 (2011).

f. ***chinensis*** (Lindl.) H. Ohashi, **stat. nov.**

Sambucus chinensis Lindl. in Trans. Hort. Soc. Lond. **6**: 297 (1826) [Lectotype: fide G. W. Hu & al. in Novon **18**(1): fig. 1 (2008)]; Nakai in Bot. Mag. (Tokyo) **31**: 211 (1917); H. Hara, Enum. Spermatophyt. Jap. **2**: 50 (1952); Ohwi, Fl. Jap. ed. Engl.: 834 (1965) & l. c. ed. rev.: 1254 (1965); Kitam. in Satake & al., Wild Flow. Japan Herb. **3**: 143 (1981); H. Hara in Ginkgoana **5**: 293 (1983); J. Q. Hu in Fl. Reip. Pop. Sin. **72**: 6 (1988); H. Ohba in K. Iwats. & al., Fl. Jap. **3a**: 429 (1993); Yang & Chiu in Fl. Taiwan ed. 2, **4**: 750, pl. 346 (1998); G. W. Hu & al. in Novon **18**: 63, f. 1 (2008); H. Ohashi & al., New Makino's Illust. Fl. Jap.: 707, fig. 2865 (2008).

S. javanica subsp. *chinensis* (Lindl.) Fukuoka

in Acta Phytotax. Geobot. **22**(4–6): 166 (1967) & **27**: 157 (1976).

Distr. Japan (introduced?), Taiwan, China, N. Myanmar, Bhutan to Nepal and India (Assam).

f. ***formosana*** (Nakai) H. Ohashi, **stat. nov.**

Sambucus formosana Nakai in Bot. Mag. (Tokyo) **31**: 211 (1917) [**Type**: **TAIWAN**. Kelung. [4 Nov. 1896] T. Makino s.n. (TI. Lectotype, chosen by H. Hara 1983)]; Ohwi & Kitag., New Fl. Jap. revised: 1397 (1992).

S. javanica Blume var. *formosana* (Nakai) Schwer. Mitt. Deutsch. Dendr. Ges. **29**: 222 (1920); Toyoda, Fl. Bonin Is.: 263, t. 152 (1981); S. Kobay. & M. Ono in Ogasawara Res. no. 13: 26 (1987).

S. chinensis var. *formosana* (Nakai) H. Hara in Ginkgoana **5**: 295 (1983); H. Ohba in K. Iwats. & al., Fl. Jap. **3a**: 429 (1993).

Distr. Japan (Ogasawara, S. Kyushu, and the Ryukyus), Taiwan and the Philippines.

f. ***pinnatilobata*** (G. W. Hu) H. Ohashi, **comb. et stat. nov.**

S. chinensis var. *pinnatilobata* G. W. Hu in Novon **18**(1): 63, fig. 2A–B & fig. 3 (2008).

Distr. China (Hunan).

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大橋広好：**レンプクソウ科ソクズの変異**

佐竹義輔他（編）『日本の野生植物』（平凡社）を改訂する中でレンプクソウ科ソクズについて再検討した．ソクズの学名は Nakai (1917) 以来日本，中国，台湾では *Sambucus chinensis* Lindl. が当てられてきた．しかし Flora of China (2011) では Nakai 以前の扱いであった *Sambucus javanica* Blume に戻している．*S. chinensis* の核果は赤熟し，*S. javanica* では黒または黒紫色に熟す点で異なるとして区別されている．しかし，ニワトコ属では種内で果実の色の変異が見られ，その違いは品種レベルの違いと考えられるので，ソクズも *S. javanica* の品種としておきたい．タイワンソクズも核果は赤熟し，ソクズに比べると多くは蜜腺がやや小形となる．*S. javanica* の品種としておきたい．中国湖南省から記載された *S. chinensis* var. *pinnatilobata* G. W. Hu は日本のニワトコに見られる小葉の切れ込んだ形であるハゴロモニワトコ f. *lacera*（Nakai）H. Hara やサケバニワトコ f. *dissecta* Murata に似た変異を示すもので，*S. javanica* の品種が適当なランクと思われる．

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