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A New Treatment in *Sciaphila* (Triuridaceae) in Taiwan and Japan

Hiroyoshi Ohashi

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ABSTRACT: *Sciaphila tosaensis* Makino, endemic to Japan, and *S. megastyla* Fukuy. & T. Suzuki, endemic to Lanyu Island in Taiwan, are regarded to be identical with *S. secundiflora* Thwaites ex Benth., which is widely distributed in the Pacific islands, Malesia, Hongkong and Sri Lanka.

KEY WORDS: Japan, *Sciaphila*, *Sciaphila secundiflora*, Taiwan.

INTRODUCTION

In preparing a manuscript of Triuridaceae for the Flora of Taiwan second edition which will be published at the end of 2000, a poorly known species of *Sciaphila*, *S. megastyla* Fukuy. & T. Suzuki, was studied. This species was described by Fukuyama and Suzuki (1936) based on several plants collected by Suzuki in a tropical rain forest in a mountain, west of Mt. Omori-yama, in southern Lanyu Island (Botel Tobago) in 1935. There are no specimens of the species in Taiwan and Japan, although it was recorded as its holotype is kept in TAI. However, the original publication with description, illustration and notes were well prepared. Based on the publication, I could compared *S. megastyla* with related species. In this paper I intended to clarify the taxonomic position of *S. megastyla* and its relation with other species for the Flora of Taiwan second edition.

Sciaphila megastyla Fukuy. and T. Suzuki was distinguished from *S. tosaensis* Makino in having the exserted club-shaped style as indicated by its specific epithet. They recognized, based on its original description by Makino (1905), *S. tosaensis* as having its style slightly exceeding the ovary (Fukuyama and Suzuki, 1936). This character seems, however, to be not stable in *S. tosaensis* , because Nakai and Maekawa (1936) clearly showed that the style of *S. tosaensis* (as *Parexuris tosaensis*) is exserted from the ovary. They described that the style is laterally and adaxially inserted at below the half of the ovary and that the style exceeds the ovary; and the fruits become larger and the ovary exceed the style. Also, according to Meerendonk (1984), in genus *Sciaphila* fruits are 3-8 times as large as the ovaries with persistent, partly shriveled style. It is clear that the diagnostic character of *S. megastyla* is not useful. *Sciaphila megastyla* very closely resembles *S. tosaensis* in other characters as stated by Fukuyama and Suzuki (1936). Although new material is much needed to be discovered in Lanyu Island, *S. megastyla* Fukuy. & T. Suzuki is indistinguishable from *S. tosaensis* Makino.

Makino (1905) noted in the original publication that *Sciaphila tosaensis* Makino is close to *S. secundiflora* Thwaites, although distinction between the two was not mentioned. *Sciaphila secundiflora* was found by Thwaites in Ceylon and was described simply by

1. Botanical Garden, Tohoku University, Sendai, 980-0862 Japan.

Sciaphila secundiflora Bentham. This species is known by its disjunctive distribution in Malesia and Hongkong. It is a very polymorphic species. Plants are reddish purple to reddish in Japan and Taiwan, but, according to Meerendonk (1984), they are white (when young), red, pale mauve or purplish in Malesia. Meerendonk (1984) regarded 12 species as synonymous with *S. secundiflora*. Among 14 species of *Sciaphila* of Malesia the species is characteristic in having unisexual flowers (the female towards the base and the male towards the apex), 4-8 equal perianth-segments of the male flower, 3 stamens, and club-shaped style. *Sciaphila tosaensis* Makino agrees with *S. secundiflora* in these diagnostic characters, although it has usually 6 perianth-segments of the male flowers. The description of *S. secundiflora* by Meerendonk (1984) well matches with plants referable to *S. tosaensis*. These two species are apparently conspecific.

TAXONOMIC TREATMENT

Sciaphila secundiflora Thwaites ex Benth. in Hook. J. Bot. Kew Misc. **7**: 10 (1855) [Type: Ceylon. Thwaites (K holotype, not seen)]; Meerendonk in F. Males. ser. I, **10**: 116 (1984).

Sciaphila tosaensis Makino in Bot. Mag. (Tokyo) **19**: 140 (1905) [Type: Japan. Shikoku. Kochi Pref. (Prov. Tosa). Chigaidyama. *Y. Tokihisa s. n.* 26 July 1905 (TI syntype, not seen), loc. cit. *Y. Uyematsu s. n. 10* Sept. 1905 (TI syntype, not seen)]; Ohwi, Fl. Jap.: 68 (1953); Maekawa *et al.*, Makino's New Illust. Fl. Jap.: 702 (1961); Kitamura, Murata & Koyama, Col. Illust. Herb. Pl. Jap. 3: 389, pl. 104 (1964); Ohwi, Fl. Jap. ed. Engl.: 131 (1965) & ed. rev. 82 (1965); Hatusima, Fl. Ryuk. 655 (1971); Walker, Fl. Okinawa 156 (1976); Yamashita in Satake *et al.*, Jap. Herb. Pl. 1: 19, pl. 10 (1982); Ono *et al.*, Rev. Makino's New Illust. Fl. Jap.: 842 (1989); Ohwi & Kitagawa, New Fl. Jap. Rev. 92 (1992); Shimabuku, Check List Vasc. Fl. Ryukyu rev. ed.: 602 (1997), *syn. nov.*
Seychellaria tosaensis (Makino) T. Ito in Bot. Mag. (Tokyo) **21**: 85 (1907).
Parexuris tosaensis (Makino) Nakai & F. Maek., Icon. Pl. As. Orient. **1**: 23, tab. 11 (1936).
Sciaphila megastyla Fukuy. & T. Suzuki in J. Jap. Bot. **12**: 412 (1936) [Type: Taiwan. Lanyu Island (Ins. Kotosyo; in pluviisilvis monte Omori-yama, c.300 m. alt. *Suzuki 3616.* Mai.23, 1935 (TAI holotype, not seen; not found in TAI)]; H.Giesen. in Pflanzenrich 104(IV. 18): 69 (1938); L.Y. Zhou & X.W. Zhong in Fl. Reip. Popul. Sin. 8: 191 (1992), *syn. nov.*
Sciaphila boninensis Tuyama in Bot. Mag. (Tokyo) **50**: 425 (1936) [Type: Japan. Bonin. Chichi-jima. *M. Okabe s. n.* 29 July 1935 (TI holotype, not seen)].

Saprophytic herb, white, pink or reddish, not green, glabrous. Stems slender, simple, rarely branched, 4-12 cm long, 0.5-1.5 mm in diameter, with a few alternate scales. Scales ovate or narrowly ovate, acuminate, 2-4 mm long. Inflorescences terminal, racemose, erect, 3-9-flowered. Flowers small, actinomorphic, unisexual (pistillate flowers towards the base, staminate ones towards the apex), short-pedicellate; perianth-segments 3-8, usually 6, valvate in bud, equal, subulate, 2-3 mm long, glabrous. Stamens 3 or 2, subsessile. Ovaries 10-80, free, 1-locular, with 1 ovule, clustered, obovate, 0.5-1 mm long, upper part papillate, apex rotund; style inserted basally, clavate, apex papillate, exceeding the ovary. Ovules solitary, with 1 integument. Fruits achene, obovoid, with persistent style. Seeds 1, ellipsoidal, surface reticulate.

Distribution: Sri Lanka, Malesia, Hongkong, Taiwan, Japan and the Pacific islands. Taiwan, recorded in rain-forest.

LITERATURE CITED

Fukuyama, N. and T. Suzuki 1936. Three new saprophytic species of plants from the Island of Kotosyo, Taiwan. J. Japan. Bot. **12**: 410-416.

Makino, T. 1905. Observations on the Flora of Japan. Bot. Mag. (Tokyo) **19**: 131-158.
Meerendonk, J. P.M. van de 1984. Triuridaceae. In: Flora Malesiana ser. I, **10**: 109-121.
Nakai, T. and F. Maekawa 1936. Tabula XI. *Parexuris tosaensis* Nakai et F. Maekawa (Triuridaceae). Nakai, T. (ed.), Iconographia Plantarum Asiae Orientalis **1**(2). Shunyodo Shoten, Tokyo.

台灣及日本霉草屬（霉草科）植物的訂正

大橋廣好

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摘　　要

日本特有種土佐霉草（*Sciaphila tosaensis* Makino）及台灣特有種蘭嶼霉草（*Sciaphila megastyla* Fukuy. & T. Suzuki）經比對後，發現與錫蘭霉草（*Sciaphila secundiflora* Thwaites ex Benth.）極為相似，應屬同種，因此正確學名應該採用後者。錫蘭霉草廣泛分佈於太平洋諸島、馬來西亞、香港及斯里蘭卡。

關鍵詞：日本，霉草屬，錫蘭霉草，台灣。

1. 東北大學植物園，仙台市 980-0862，日本。