

A Hybrid, *Salix japonica* × *S. udensis* (*Salicaceae*) in Japan

Hiroshi YOSHIYAMA^a and Junichi YAMAGUCHI^{b,*}

^aYoshiyama Hybrid Willow Garden,
157-26, Nishiasakawa-machi, Hachioji-shi, Tokyo, 193-0842 JAPAN;

^bPlant Reference Research Team,
5-25-25, Shakujidai, Nerima-ku, Tokyo, 177-0045 JAPAN

*Corresponding author: bluegrass-JY@nifty.com

(Accepted on August 6, 2020)

A hybrid between *Salix japonica* Thunb. and *S. udensis* Trautv. & C. A. Mey. (*Salicaceae*) is described with a new name, *S. ×tamagawaensis* Yoshiyama & J. Yamag., from Tokyo, Japan.

Key words: Japan, hybrid, *Salix japonica*, *Salix ×tamagawaensis*, *Salix udensis*, Tokyo.

In 2009, last author found an unfamiliar shrub of *Salix* within a population of *S. japonica* on a cliff along Tama River in Hamura-shi, Tokyo. He repeatedly observed the habitat in 2009–2012 and presumed it as a hybrid between *S. japonica* and *S. udensis* (Yamaguchi 2016) as the latter species was also growing in the floodplain of Tama River adjacent the present habitat. For more detailed study, he collected a living branch of the willow in 2014 to propagate in the Hybrid Willow Garden of the other author. The plant has grown up a medium-sized shrub (4.5 m tall in April 2019) with flowers and fruits. We have observed its habit and variation in living conditions through these years. Now we confirmed that this plant is a hybrid between *S. japonica* and *S. udensis* based on its habit and morphological characteristics of leaves and flowers.

The hybrid may be the same as that recorded by Sugimoto (1984) as ‘*Salix sachalinensis* × *japonica*’ with a Japanese name ‘Shibaonoe yanagi’ from Suyama in Shizuoka Pref. with no description and voucher specimens. We recorded

the hybrid as a hybrid formula (Yamaguchi 2016, Yoshiyama and Mogi 2019). In this paper, we describe this hybrid with a new scientific name and description.

Salix ×tamagawaensis Yoshiyama & J. Yamag., **hybr. nov.** [Figs. 1–3]
= *Salix japonica* Thunb. × *S. udensis* Trautv. & C. A. Mey.

Holotype: JAPAN. Honshu. Tokyo Pref. Cultivated at Yoshiyama Hybrid Willow Garden, Nishiasakawa-machi, Hachioji-shi (originally collected on the bank of Tama River, 35°46′ 19″ N 139°17′ 46″ E, alt. 138 m, in Hamura-shi, 2 April 2014), 30 March 2019, Junichi Yamaguchi 301-1 (TUS 511320; Fig. 1).

A shrub, stems slightly curved, bark dark greenish brown; sapwood ridged; one-year-old branch glabrous. Winter (floral) bud narrowly ovoid, apex acute, about 6 mm long, 2.8 mm wide, dark brown, glabrous, tightly stuck to branch. Leaves alternate, revolute when young except for tip, narrowly elliptic, apex acute, 8–12 cm long, 1–3 cm wide, upper (adaxial)

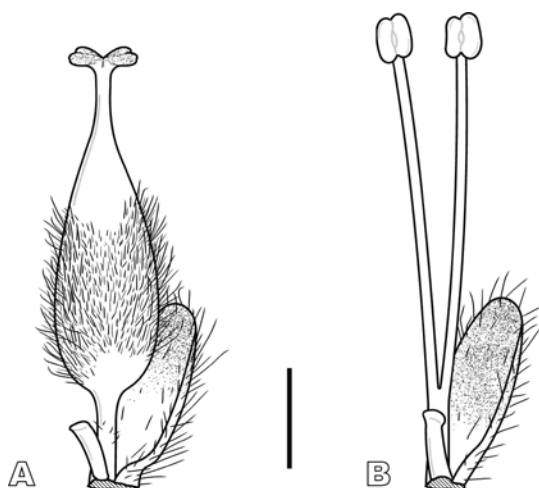


Fig. 3. *Salix* × *tamagawaensis*. A. Female flower. B. Male flower. Scale bar: 1 mm.

dark green, main and lateral nerves curved. Leaf margin undulate, low-serrated. Bract pubescent, with dark brown part. Ovary pubescent (Fig. 3A). This hybrid has flowers of different sexes mixed, with most catkins consisting of male and female flowers, few are unisexual.

Salix japonica has a narrow distribution range endemic to southeastern part of Honshu Island, in Kanto and Tokai regions, where it is common on dry slopes and cliffs. On the other hand, *S. udensis* is widely distributed in cool temperate regions of northeastern Asia, including cooler

regions of Hokkaido and Honshu Islands extending to the montane area of Shikoku Island (Kimura 1989 as *S. sachalinensis*, Ohashi 2016). Although *S. udensis* becomes rarer in warmer areas of Honshu Island such as the southern part of Kanto district or Tokai Regions, it grows occasionally in hillside floodplains of rivers (Yamaguchi 2016). The habitat of the present hybrid is one such place where the populations of the above two species come into contact.

The author would like to thank Dr. H. Ohashi, Professor Emeritus, Tohoku University, for his invaluable assistance and encouragement.

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吉山寛^a, 山口純一^b: 東京都産ヤナギ科の雑種シバオノエヤナギ

著者のひとり山口は、2009年に東京都羽村市の多摩川沿い崖下(35°46'19"N 139°17'46"E, alt. 138 m)において、シバヤナギとオノエヤナギとの雑種と推定される低木を発見した。周辺はシバヤナギの群落地で、樹形や枝ぶりはシバヤナギによく似るが、成葉の表面主脈と側脈は凹入して裏面に細脈までが突出し、新葉は縁が裏側に強く巻きこむなど、オノエヤナギが持つ葉の特徴をよく示していた。2014年に挿枝を採り以後八王子市の吉山雑種柳観察園で育成し、5年後の2019年には高さ4.5 mの中低木となり多数の花序をつけた。樹形、葉や花の形質、胚珠数や木部に隆起条があるなど、本個体が示す

多くの形質からシバヤナギとオノエヤナギとの雑種個体であると結論した。この雑種は杉本順一が静岡県植物誌(1984)に「*Salix sachalinensis* × *japonica* シバオノエヤナギ(新称)間種(シバヤナギ×オノエヤナギ)」として記録したものと多分同じと思われるが、雑種式だけで記載がない。また、山口(2016)と吉山・茂木(2019)も「シバオノエヤナギ」として記録している。そこで我々は東京産の標本をタイプとして学名と記載をつけ、ここに発表した。

^a吉山雑種柳観察園,
^b植物検索研究会)