



NOTE

Sedum sarmentosum Bunge (Crassulaceae), a Newly Naturalized Herb in Taiwan

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ABSTRACT: *Sedum sarmentosum* Bunge (Crassulaceae), a newly naturalized fleshy herb in Taiwan, is reported here. The taxonomic description, line drawing, and photographs are provided. The population is colonized on Mt. Tatun, Yangmingshan National Park, north Taiwan. Since this species was reported being invasive, its impacts on the local ecosystem should be concerned.

KEY WORDS: Crassulaceae, *Sedum sarmentosum*, naturalized plant, Taiwan.

INTRODUCTION

Sedum L., the largest genus of Crassulaceae, contains ca. 470 species in the world (Fu and Ohba, 2001). In the publication of Flora of Taiwan, second edition, 14 species of *Sedum* were recognized in Taiwan (Tang and Huang, 1993).

In 2007, the second author found an unknown species of *Sedum* when performing a plant inventory on Mt. Tatun, Taipei City, north Taiwan. This unknown herb is characterized by a ternately whorled phyllotaxis and flat leaf blades, which is quite different from other congener. After careful examination of literature (Fu and Ohba, 2001) and herbarium material (from PE, TAIF, and MO), it is determined to be *Sedum sarmentosum* Bunge. The description, line drawing and photos are provided in the followings.

TAXONOMIC TREATMENT

Sedum sarmentosum Bunge, Enum. Pl. China Bor. 30. 1833; Fu & Ohba in Fl. China 8: 250. 2001. Type: China, locality and date unknown, *Bunge 183* (holotype: LE; isotype: PE).

垂盆草 Figs. 1 & 2

Perennial fleshy herb. Stems glabrous, slender, creeping, rooting at nodes. Leaves ternately whorled, sessile; blades glabrous, oblanceolate to rhombic-obovoid, 1.3–3.0 cm long, 0.5–1.0 cm wide, apex subacute, base abruptly narrowed. Cyme short, 1–few flowered; flowers sessile; sepals 5, green, lanceolate, 3–5 mm long; petals 5, yellow, lanceolate,

5–8 mm long; stamens 10, slightly shorter than petals; pistils about equal to stamens; carpels 5, free, oblong, ca. 5 mm long. Fruits not seen.

Native to China, widely distributed in rocky places below 1600 m of Anhui, Fujian, Gansu, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Jilin, Liaoning, Shaanxi, Shandong, Shanxi, Sichuan, Zhejiang provinces. Widely cultivated in the world for an ornamental purpose and naturalized in America, Japan, Korea, north Thailand, and numerous European countries.

Notes: *Sedum sarmentosum* in a broad sense contains two morphological types of leaves. The narrow-leaved type was published as another species named *S. angustifolium* Z.B. Hu & X.L. Huang (Hu et al., 1981). The plant naturalized in Taiwan belongs to the broad-leaved type. Therefore, we determine it to be *S. sarmentosum*. *Sedum sarmentosum* is used for ornamental, medicinal, and sometimes vegetable purposes. Nowadays it has been cultivated widely in Europe, America, and Japan (Sirbu et al., 2011). However, due to its vegetative reproduction and environmental tolerance, it has become an invasive plant in Japan, North America and numerous European countries, such as Spain, Montenegro, Slovenia, Czech, Switzerland, Belgium, Hungary, Croatia, and Austria (Miyawaki and Washitani, 2004; Sirbu et al., 2011).

In Taiwan, *Sedum sarmentosum* was not documented in Flora of Taiwan (Tang and Huang, 1993), neither in the reports for the plant inventory of Mt. Tatun (Simozawa, 1941; Huang et al., 1986; Wang, 1995), where we first discovered this plant on 2007. However, the newly found population was just beside the road and dominant. Therefore, we proposed it to be