



NOTE

A Newly Naturalized Species in Taiwan: *Pilea nummulariifolia* (Swartz) Weddell (Urticaceae)

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ABSTRACT: This report is regarding the naturalization status of an introduced ornamental species, *Pilea nummulariifolia* (Swartz) Weddell. *Pilea nummulariifolia*, a member of Urticaceae, is originated from tropical America, and has been widely cultivated through out the island of Taiwan. This species can be identified by its rounded leaves with toothed edges and long ascending or procumbent stem with densely hairs. This paper describes this newly naturalized species and provides line drawing and photograph for identification.

KEY WORD: Urticaceae, *Pilea nummulariifolia*, Naturalized, Taiwan.

INTRODUCTION

Naturalization is the most important milestone of biological invasions (Richardson et al., 2000); therefore, naturalized species are often considered as potential invaders and employed for relevant ecological approaches on plant invasions. As more and more attentions are paid to plant invasions in Taiwan, reports of newly naturalized species have been common and easy to access. These reports have become the essential sources of local ecological studies on plant invasions (Wu et al., 2003, 2004 and 2005).

In our recently field collection, a weedy species, *Pilea nummulariifolia* (Swartz) Weddell (Figs. 1 & 2), was found in the eastern Taiwan (Fig. 3). This species can be identified by its rounded leaves with toothed edges and long ascending or procumbent stem with densely hairs.

As an ornamental, this species was introduced from Tropical Americas and wildly cultivated in Taiwan. Its native distribution ranges from Caribbean region (Adams, 1972; Liogier, 1984; Acevedo-Rodríguez and Angell, 1996) to Guatemala (Standley and Steyermark, 1952), Panama (Nevling, 1960), and Peru (Brako and Zarucchi, 1993).

Since *Pilea nummulariifolia* survived in abandoned fields and reproduced without human efforts, we defined this species as a naturalized species.

In Asia, this is the first report of its naturalization. This paper describes this newly naturalized species and provides line drawing and photograph for identification.

TAXONOMIC TREATMENT

Pilea nummulariifolia (Swartz) Weddell, Ann. Sci. Nat. Bot., ser. 3. 18: 225. 1852. Figs. 1 & 2

Urtica nummulariifolia Swartz, Kongl. Vetenskaps Academiens Nya Handlingar 8: 63-64, pl. 1, f. 2. 1787.

Perennial herbs, ascending or procumbent; stem terete, densely hirsute. Leaves opposite, equal or slightly unequal in pairs, membranous to chartaceous, orbicular to oval, 3.5-5 cm long, apex obtuse, base cordate, margins crenate, 3-nerved, with hirsute along nerves beneath; petiole 0.6-2 cm long, densely hirsute; stipules 2, free, membranous, orbicular, 0.5-0.6 cm long, margins hirsute. Male inflorescences axillary, dense and head-like; female inflorescences axillary, lax and paniculately branched; flowers monoecious; male flowers: perianth 4-partite, segments concave, hirsute on the tips; stamens 4; pedicels hirsute on the upper part, ca. 0.7 cm long; female flowers: perianth 3-partite, segment small, unequal, ovary laterally compressed, oblong; stigma penicillate-capitate; achene ovate, compressed.

Specimen examined: Hualien county. Chung-kwong community, elev. ca. 176 m, on the abandoned field and fallow field, 22 Aug, 2008, Tsai 526 (TAI).