

Peperomia sui and *Piper taiwanense*, New Species of Piperaceae from Taiwan

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ABSTRACT: Two new species of Piperaceae, *Peperomia sui* Lin & Lu and *Piper taiwanense* Lin & Lu, are described from Taiwan.

KEY WORDS: *Peperomia sui*, *Piper taiwanense*, Taiwan.

During the course of studying Piperaceae for the second edition of Flora of Taiwan in recent years, the authors found two new species. Their line-drawings are given as follows.

Peperomia sui Lin & Lu, sp. nov. (Fig. 1).

Herbae carnosaeque. Caulis ruber 10-30 cm longus erectus puberulus. Folia opposita vel ternata petiolata, obovata 1.5-5 cm longa 1-3 cm lata, apice obtusa, basi acuta vel obtusa, uterque pagine puberula, supra viridia, subtus pallida, trinervia, petiolis puberulis rubis 0.3-1 cm longis. Spica erecta terminalia vel axillara, 2.5-6 cm longa; rachis glabra; pedunculus puberulus 0.5-1.2 cm longus. Fructus globosus, minute glandulato-papillosus, 0.7 mm in diameter.

Typus: Taitung Co., Horngyeh Cycad Reserve, 9 June 1994, Lin 1399. (Holotype: TAIF).

A succulent herb, 10-30 cm high; stems tufted, erect, red, densely soft-puberulent. Leaves opposite or ternate, obovate, 1.5-5 cm long, 1-3 cm wide, obtuse at apex, acute to obtuse at base, entire, puberulous on both surfaces, green above, paler beneath, 3-nerved; petioles 0.3-1 cm long, puberulous, red. Spikes erect, terminal or axillary, 2.5-6 cm long; rachis glabrous; peduncles sparsely puberulous, 0.5-1.2 cm long. Fruit globose, 0.7 mm in diameter, minutely glandulato-papillose.

Peperomia sui is close to *P. japonica* Makino, but can be distinguished by its red stems and red petioles. The foliar epidermal cells of these two species is quite distinct. In *P. sui*, they are dome-shaped with scattered hairs (Fig. 2), whereas in *P. japonica*, they are flat with scattered hairs (Fig. 3).

This species is named in honor of Dr. Horng-Jye Su for his contribution in plant taxonomy and vegetation ecology in Taiwan.

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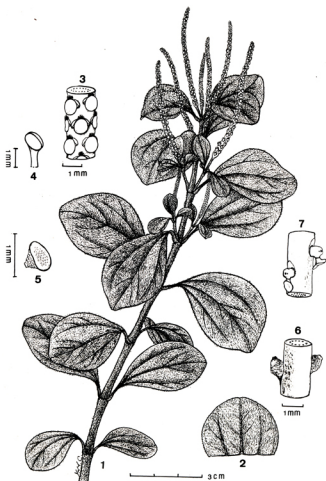


Fig. 1 *Peperomia sui* Lin & Lu. 1. Flowering branch. 2. Hairs on lower surface of leaf. 3. Portion of a flowering spike. 4. Stamen. 5. Side view of a bract. 6. Portion of a fruiting spike. 7. Portion of a spike after fruit detaching.



Fig. 2 SEM microscopy of adaxial leaf surface of *Peperomia sui*. (Scale bar = 100 μ m)

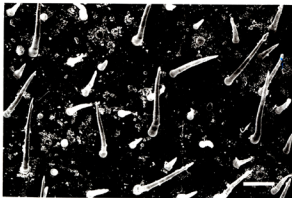


Fig. 3 SEM microscopy of adaxial leaf surface of *Peperomia japonica*. (Scale bar = 100 μ m)

Additional specimens examined:

Taichung Co.: Kukuan, *Lu 24730* (TAIF). Nantou Co.: Chichi, *Lu 24731* (TAIF).
Pingtung Co.: Shandihmen, *Lu 24745* (TAIF).

***Piper taiwanense* Lin & Lu, sp. nov. (Fig. 4).**

Caulis scandens, ad nodos radicans, sparse minute puberulus vel prope glaber. Folia chartacea, infra sparsa minuta puberula, ovata, oblonga-ovata, 4.5-12 cm longa, 2-9 cm lata,

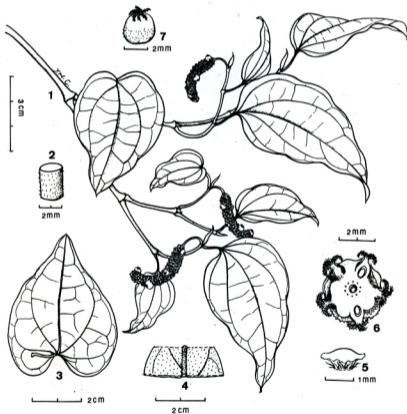


Fig. 4 *Piper taiwanense* Lin & Lu. 1. Leafy branch with pistillate spikes. 2. Hairs on branch. 3. Lower leaf. 4. Hairs on lower surface of leaf. 5. Side view of a bract. 6. Transverse section of a pistillate spike. 7. Fruit.

apice acuta vel obtusa, basi obtusa vel cordata 5- vel 7-nervia inaequalia vel aequalia, petiolis 0.7-1.5 cm longis. Flores masculini spicati, spicis subpendulis, oppositifoliis, 2-6 cm longis, pedunculis 0.8-1.5 cm longis. Flores feminei spicati, spicis subpendulis, oppositifoliis, 1-3.5 cm longis, pedunculis 0.7-2 cm longis; stigma 4-7. Fructus liberi.

Typus, Taichung Co.: between Tungshih to Wushihkeng, 24° 15'N, 120° 37'E, elev. ca. 500m, in a Chinese fir plantation, 19 May 1995, Lu 24728(♂), (Holotype: TAIF; isotype: HAST, TAI)

A climber; sparsely minutely puberulent or nearly glabrous; hairs 0.1 mm long. Leaves thick-chartaceous, ovate to oblong-ovate, 4.5-12 cm long, 2-9 cm wide, acute to obtuse at apex, obliquely or equilaterally obtuse to cordate at base, 5- or 7-nerved; petioles 0.7-1.5 cm long. Staminate spikes subpendulous, 2-6 cm long; peduncles 0.8-1.5 cm long. Pistillate spikes subpendulous, 1-3.5 cm long; peduncles 0.7-2 cm long; stigmas 4-7. Fruit free.

Piper taiwanense is related to *Piper kadsura* (Choisy) Ohwi, but differs from it by having minute hairs 0.1 mm long and ascending nerves leaving the midrib usually at the base of leaf. In addition, the leaves of the former have the odour similar to those of *Piper betle* L.

Additional specimens examined:

Miaoli Co.: Malabangshan, Huang et al. 15619 (TAI); Chuolan, Huang et al. 15605 (TAI). **Taichung Co.:** between Tungshih and Wushihkeng, Lu 24727(♀) (TAIF). **Nantou Co.:** between Shuili and Chichitashan, Lu 24733(♀), 24734(♂) (TAIF); Chinshueikeo, Huang 5219 (TAI). **Chiayi Co.:** between Chiaoliping and Juili, Yang 3526 (TAI). **Kaoshiung Co.:** Sanpin, Kuo 7719 (TAI). **Pingtung Co.:** Kuskus, Kudo & Suzuki 16018 (TAI); Nanjenshan, Hsieh s. n. 1990.

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台灣胡椒科兩新種—紅莖椒草及台灣老藤

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摘 要

本文記載台灣發現之胡椒科兩新種植物—紅莖椒草(*Peperomia sui* Lin & Lu)及台灣老藤(*Piper taiwanense* Lin & Lu)。

關鍵詞：紅莖椒草，台灣老藤，台灣。

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