

A NEW RECORD OF ARISAEMA (ARACEAE)
IN TAIWAN

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Abstract. *Arisaema thunbergii* Blume subsp. *urashima* (Hara) Ohashi & J. Murata (Araceae) is reported for the first time from Taiwan. A taxonomic description and a morphological comparison with *Arisaema heterophyllum* Blume, a closely similar relative known to occur in Taiwan, are provided.

The genus *Arisaema* contains about 150 species distributed mainly in the temperate regions of Asia (Murata, 1984). The Taiwanese species were first revised by Huang (1960). In Flora of Taiwan six species were recognized (Liu & Huang, 1978). Later, Murata (1985) described a new species, *Arisaema taiwanense*, from Taiwan. A recent collection made by the author has resulted in the discovery of a new record, *Arisaema thunbergii* Blume subsp. *urashima* (Hara) Ohashi & J. Murata, in Taiwan.

Arisaema thunbergii Blume subsp. *urashima* (Hara) Ohashi et J. Murata in J. Fac. Sci. Univ. Tokyo 111 12:307, 1980. Fig. 1

Arisaema urashima Hara in J. Jap. Bot. 11:822, 1935. T. Koyama in Ohwi, Fl. Jap. Engl. ed. 258, 1965.

Tuber depressed-globose, 3-6cm in diameter. Pseudostem 5-15cm long, much shorter than the petiole. Cataphylls membranous, purplish to brownish, apex mucronate. Leaf solitary, petiole terete, 20-55 cm long; lamina pedate, leaflets 11-15, oblanceolate to elliptic, cuneate at the base, acuminate to the apex, the terminal one 10-28cm long, 2-7.5cm wide; peduncle 10-20cm long, usually shorter than the petiole. Spathe white to pale yellow with dark to bronze-purple or reddish purple stripes; tube cylindrical, auriculate at the mouth, 5-7cm long, 2-2.5cm wide, white to pale yellow with longitudinal purple stripes outside and dark purple stripes inside; blade triangular ovate, 7-10cm long, 4-5cm wide, acute to acuminate to the apex. Spadix 3-4cm long in male, appendage filiform, 40-60cm long, long exerted, the upper portion bent downward and pendulous, the lower portion gradually thickened to form a smooth long cylindrical enlargement, then gradually narrowed toward the floriferous part.

Distribution: Japan.

Specimens examined: Taiwan: Hualien Co., Yenhai logging tract, Wang 6747A (Herbarium of Department of Biology, National Taiwan Normal University). Japan: Honshu, Miyagi Pref. Aobayama, Ohashi & Tateishi s.n. May 21, 1982 (TAI); Prov. Rikuzen, Sendai, Tamaki 74 (TAI); Pref. Aichi, Mt. Ohyama, Kanai & Koyama s.n. Apr. 8, 1974 (TAI). Pref. Shizuoka, Mera, Togachi M77202 (TAI). Yunokawa, Osima, Yamamoto s.n. June 16, 1923 (TAI). Prov. Gunma, Setagun,

Narukamiyama, Yanwzaki 7141 (TAI).

The specific epithet *urashima* is derived from a Japanese trade name of fishing line which describes the long pendulous, thread-like spadix appendage. This character can be used to distinguish this taxon from other Taiwanese *Arisaema*. This new record is closely similar to *A. heterophyllum* Blume in having pedate leaves and a long exerted spadix-appendage. They belong to the same section *Tortuosa* (Murata, 1984). However, the spadix-appendage of *A. heterophyllum* Blume is erect, never pendulous, and shorter and thicker than that of *Arisaema thunbergii* subsp. *urashima*. The two taxa can be easily distinguished by the following key:

- la. Spathe green without dark stripes; spadix-appendage erect, upper portion never pendulous; both pseudostem and peduncle longer than petiole; terminal leaflet much smaller than the adjacent lateral ones.

Arisaema heterophyllum

- lb. Spathe white to pale yellow with dark stripes; spadix-appendage long filiform, upper portion pendulous; both pseudostem and peduncle shorter than petiole; terminal leaflet as large as or larger than the adjacent lateral ones.

Arisaema thunbergii subsp. *urashima*

This new record is mainly confined to the mountainous region from elevation of 500m to 1000m in Eastern Taiwan. They scarcely grow under a broad-leaved forest characterized by Lauraceae and Fagaceae, such as *Persea japonica* Sieb. ex Sieb. & Zucc., *Cinnamomum insularimontanum* Hayata., *Cyclobalanopsis glauca* (Thunb.) Oerst. and *Pasania kawakamii* (Hayata) Schott. Other associates include *Turpinia ternata* Nakai, *Ilex ficoidea* Hemsl., *Acer serrulatum* Hayata, *Viburnum taitoense* Hayata and *Alnus formosana* (Burk.) Makino. Two other *Arisaema*, *Arisaema formosana* (Hayata) Hayata and *Arisaema heterophyllum* Blume, are also found at the same locality.

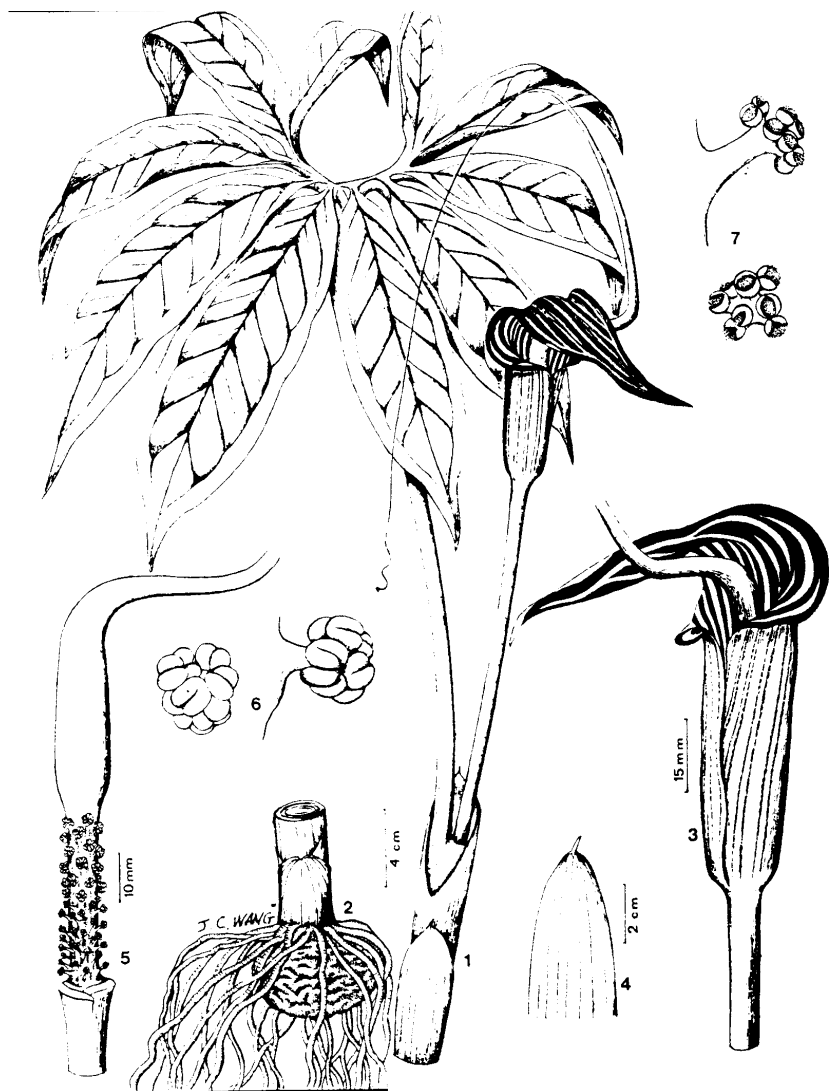


Fig. 1. *Arisaema thunbergii* Blume subsp. *urashima* (Hara) Ohashi & J. Murata.
1,2. habit and tuber; 3. inflorescence; 4. apex of cataphyll;
5. male spadix; 6. male flower from the upper part of spadix, front view and lateral view;
7. male flower from the lower part of spadix, lateral and front view. (Wang 6747A).

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