

CALDESIA PARNASSIFOLIA (ALISMATACEAE), A NEGLECTED MONOCOT IN TAIWAN**

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Abstract: *Caldesia parnassifolia* (Bassi ex Linn.) Parl. is reported as a newly recorded species to the flora of Taiwan.

INTRODUCTION

For many years the author has made several collecting trips to the mountainous swampy areas around the northern part of this island to investigate the subtropical *Sphagnum* communities. Recently in a locality near Shuanglienbei of Yuenshanshang, Ilan County, the author found a small bog at the altitude about 700 m above sea level. The peat moss has been identified as *Sphagnum cuspidatum*, since it matches well the specimen he borrowed from the Botanical Museum, University of Helsinki, Finland (H). This *Sphagnum* species was previously unknown to our moss flora.

In the same bog, the author noticed an aquatic monocot associated with *Brasenia schreberi* Gmel. Since the author is currently assisting in the preparation of the "FLORA OF TAIWAN", he recognized that this plant was obviously unknown in our area. So after taking specimens back to the herbarium, and studying them as well as comparing them, this collection was identified as a new addition to the flora of Taiwan.

CALDESIA PARL.

Caldesia Parl., Nuov. Gen. e Spec. Monocot. 57. 1854 et Fl. Italiana III: 598. 1858. 圓葉澤瀉屬

Marsh herbs. Leaves long-petioled, ovate-cordate to reniform-cordate. Flowers white, bisexual, pedicelled, verticillate, in panicles or racemes; sepals and petals all 3; stamens 6; carpels 6-9, nutlike, in a hemispherical head on a receptacle, ovules solitary in each carpel.

Species 4, paleotropical. A genus new to the monocot flora of Taiwan.

CALDESIA PARNASSIFOLIA (BASSI EX LINN.) PARL.

Caldesia parnassifolia (Bassi ex Linn.) Parl., l. c. -*Alisma parnassifolium* Bassi ex Linn., Syst. Nat. ed. 12. III: 230. 1768. -*Alisma reniforme* D. Don, Prodr. Fl. Nepal. 22. 1825. -*Caldesia parnassifolia* (Bassi ex Linn.) Parl. var. *reniformis* (D. Don) Makino in Journ. Jap. Bot. 6: 8. 1929. -*Caldesia reniformis* (D. Don) Makino in Bot. Mag. Tokyo XX: 34. 1906. (For other synonymy, see Buchenau 1903) 圓葉澤瀉 Plate I

HLAN: Tsaobei (草埤) near Shuanglienbei (雙連埤), Yuenshanshang (圓山鄉), M.J. Lai 8580.

Distribution: Taiwan, China, the Ryukyus, Japan, India, Australia, New Guinea, Africa, Madagascar and Europe.

A species growing in temperate and tropical regions. Plants erect, glabrous. Leaves radical, 6-7 cm long, 6-8 cm wide, patent, rounded to compressed cordate in outline, nearly rounded at apex, slightly cordate at base, with 9-11 parallel nerves converging at the apex of the blade

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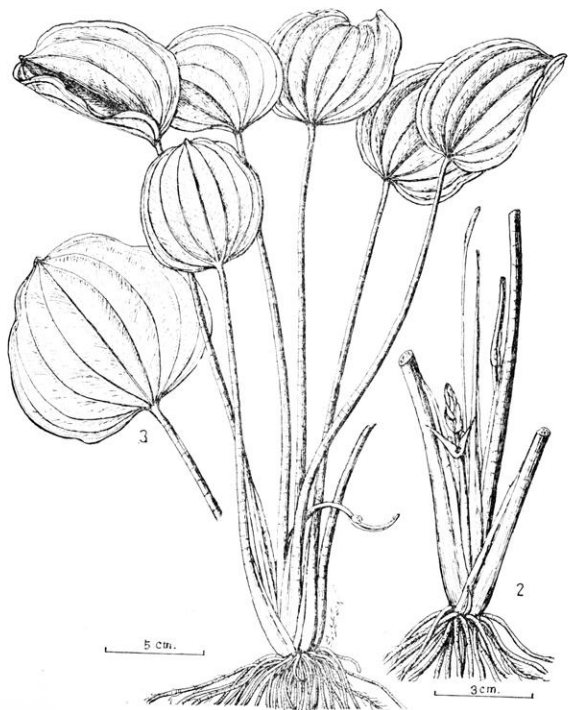


Plate I. *Caldesia parnassifolia* (Bassi ex Linn.) Parl. 1. Plant. 2. Lower part of plant showing flowering buds. 3. Leaf blade ($\times 1$).

which are more conspicuous on the back; petioles 25-30 cm long, 0.3-0.6 cm in diameter, with 2 narrow wings toward the base.

According to Ohwi (1965), the flowering period of this plant is in late summer (August to September). The plant we found only had flowering buds, the young scapes were erect, the buds were fasciculate 3-verticillate, with lanceolate, acuminate bracts which were 1 cm long or so.

Leaf morphology of this species seems variable. The author has examined the specimens from New Guinea and Japan (NEW GUINEA: Western Highlands, alt. 1920 m, leg. *W. Vincent* 16512. JAPAN, leg. *Makino* 2923, 2924). The Japanese specimens have nearly subreniform leaves and 13-17 more veins, which are similarly described by Ohwi (1965) and Hatusima (1971). Our plant is close to the specimen from New Guinea in having nearly rounded blades and fewer veins.

Based on the treatment of Buchenau (1903), the Japanese plant falls in the variety *β. major* Buchenau, Alismat. 16. 1903 (= *Alisma parnassifolium β. majus* Micheli in DC., Monogr. Phaner. III: 36. 1881; = *Alisma reniforme* D. Don). Our plant matches closely the variety *α. minor* Buchenau, Alismat. 16. 1903 (= *Alisma parnassifolium α. minor* Micheli, l. c.).

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