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A new species of *Chayamaritia* (Gesneriaceae) from Thailand

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ABSTRACT

The new species *Chayamaritia sirindhorniana* (Gesneriaceae) is described from materials collected in Loei Province in Northeastern Thailand. As it is currently only known from the type locality, further exploration of the region is needed to assess its conservation status.

KEYWORDS: *Chayamaritia*, Didymocarpoideae, Loei, new species.

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INTRODUCTION

The genus *Chayamaritia* D.J.Middleton & Mich.Möller was described by Middleton *et al.* (2015) with two species in Thailand and Laos. An additional species from Vietnam has since been published (Xin *et al.*, 2021). The genus is characterised by a prostrate rhizomatous stem, this sometimes short and thick, alternately arranged leaves, and imbricate calyx lobes. Weber *et al.* (2020) placed it in Gesneriaceae, subfamily Didymocarpoideae, tribe Trichosporeae, subtribe Didymocarpinae, which is by far the largest subtribe in the family.

In September 2023, a plant was found at Wat Pa Pha Wai, Puan Phu Subdistrict, Nong Hin District, Loei, that had the characters of the genus but did not match to a known species. It is described here as a new species and is named in honour of Her Royal Highness Princess Maha Chakri Sirindhorn for her continual support of the Flora of Thailand Project.

KEY TO THE SPECIES OF *CHAYAMARITIA*

1. Leaves distinctly peltate, lamina apex rounded; Vietnam **C. vietnamensis**
1. Leaves not or only weakly peltate, lamina apex acute to acuminate; Thailand, Laos
  2. Calyx lobes obtuse to rounded at apex, hairs on calyx patent; Thailand **C. sirindhorniana**
  2. Calyx lobes acute to acuminate at apex, hairs on calyx appressed; Thailand, Laos
    3. Calyx lobes 7–15 mm wide; leaves 1.5–1.9 times as long as wide, base rounded to subcordate; Laos **C. banksiae**
    3. Calyx lobes 0.9–4.2 mm wide; leaves 1.8–5.6 times as long as wide, base cuneate to attenuate or rarely rounded; Thailand (Laos?) **C. smitinandii**

MATERIALS AND METHODS

The new species described here is based on an examination of recent field collections made in Loei Province in Northeastern Thailand. The herbarium material was compared to previously described species of *Chayamaritia* from Thailand and other countries in the region (Middleton *et al.*, 2015; Xin *et al.*, 2021). The measurements in the description below are from dried herbarium materials for vegetative characters and from spirit materials for flower characters.

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Chayamaritia sirindhorniana D.J.Middleton, Tetsana & Suddee, **sp. nov.**

Similar to *Chayamaritia smitinandii* (B.L.Burtt) D.J.Middleton in general appearance but differs in having the calyx completely covered by patent villous hairs except for the apex, lobes obtuse or rounded at apex (calyx densely appressed pubescent including at the apex, lobes acute or acuminate at apex in *C. smitinandii*), the corolla outside light purple, inside dark purplish red with 2 ventral yellow lines, distally light purple on lower lip (deep purple throughout, inside with 2 ventral yellow lines, distally deep to slightly paler purple on lower lip in *C. smitinandii*). Type: Thailand, Loei Province, Nong Hin District, Puan Phu Subdistrict, Wat Pa Pha Wai (Wat Huai Hom), 605 m alt., 6 Sept. 2023, *N. Tetsana, P. Puudjaa, O. Kerdkaew, C. Hemrat, S. Jirakorn & Phu Kho-Phu Kratae Wildlife Sanctuary staff 2775* (holotype **BKF** [SN258495]; isotypes **BKF** [SN258496], **E**). Fig. 1.

Herb to 50 cm tall; stem short, fleshy, firmly attached to rock. *Leaves* simple, congested, alternately arranged around thick stem; petioles 1.5–12 cm long, densely pubescent with short patent hairs; blades chartaceous, dull green and glabrous above, dull greyish green and densely pubescent beneath, ovate, ovate-elliptic or elliptic-oblanceolate, 4–27 × 3–9 cm, base cuneate, sometimes slightly peltate and oblique, apex acute to acuminate, margin entire, ciliate, secondary veins 5–12 on each side of midrib, flat to slightly impressed above, prominent beneath. *Inflorescences* 2–8-flowered, all axes densely pubescent; peduncles 12–25 cm long; bracts oblong, lanceolate or oblong-lanceolate, 8–22 × 1.5–8 mm, apex acute, densely pubescent outside, glabrous inside; pedicels 5–10 mm long, densely pubescent, 10–15 mm long in fruit. *Calyx* slightly zygomorphic, lips more or less equal in length, lobes ovate, 8–10 × 5–7 mm, apex obtuse to rounded, margin slightly and irregularly toothed, densely patent villous except for the glabrous apex outside, glabrous inside. *Corolla* 5–6 cm long, outside light purple throughout, paler proximally, inside dark purplish red with 2 ventral yellow lines, distally light purple on lower lip; tube 4–4.5 cm long; upper lip with each lobe squarish, apex rounded, margins ± entire, 7–8 × 11–13 mm; lower lip with each lobe orbicular-ovate, apices rounded, margins entire, lateral lobes 13–15 × 10–11 mm, middle lobe 11–12 × 10–11 mm; outside of corolla covered with short gland-tipped hairs, inside glabrous except for gland-tipped hairs along inside of each furrow dorsally. *Stamens* inserted at 18–22 mm from corolla base; filaments 15–17 mm long, white, widest in middle, glabrous; anthers 2.5–3 × 1–1.5 mm; lateral staminodes 8–9 mm long, medial staminode 1 mm long. *Disk* 1–1.5 mm high, crenate at margin. *Pistil* 35–37 mm long; ovary subsessile, 14–16 mm long, green, densely eglandular pubescent and with few subsessile glands; style 18–19 mm long, white, densely eglandular pubescent intermixed with fewer and shorter gland-tipped hairs; stigma with upper lip absent and an enlarged spathulate entire lower lip, 2.5–3 mm long, weakly bifid at apex. *Fruit* oblong, 2.5–3 cm long, 10–12 mm wide, densely pubescent.

Thailand.— NORTH-EASTERN: Loei [Nong Hin District, Puan Phu Subdistrict, Wat Pa Pha Wai (Wat Huai Hom), 605 m alt., 6 Sept. 2023, *Tetsana et al. 2775* (**BKF**, **E**); ibid., 8 Nov. 2023, *Tetsana et al. 2802* (**BKF**, **E**)]; ibid., 18 Aug. 2024, *Tetsana et al. 2870* (**BKF**)].

Distribution.— Only known from the type locality.

Ecology.— In mixed deciduous forest on sandstone in deep shade ca 600 m altitude.

Vernacular.— Kham yat si sirinthon (คำหยาดศรีสิรินธร) (proposed here).

Etymology.— The specific epithet is given in honour of Her Royal Highness Princess Maha Chakri Sirindhorn for her dedication to, and encouragement of, the Flora of Thailand Project.

Proposed IUCN conservation assessment.— Data Deficient (DD) (IUCN Standards and Petitions Committee, 2024). The species may occur in other areas in the Phu Kho-Phu Kratae Wildlife Sanctuary, but further exploration is needed.

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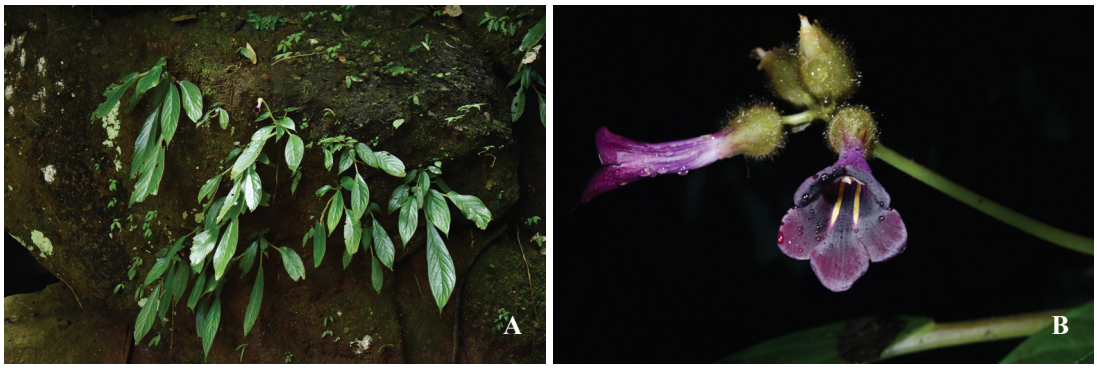


Figure 1. *Chayamaritia sirindhorniana* D.J.Middleton, Tetsana & Suddee: A. Habit; B. Flowers.

REFERENCES

IUCN Standards and Petitions Committee (2024). Guidelines for using the IUCN Red List Categories and Criteria. Version 16. Prepared by the Standards and Petitions Committee. https://www.iucnredlist.org/documents/RedListGuidelines.pdf.

Middleton, D.J., Nishii, K., Puglisi, C., Forrest, L.L. & Möller, M. (2015). *Chayamaritia* (Gesneriaceae: Didymocarpoideae), a new genus from Southeast Asia. Plant Systematics and Evolution 301: 1947–1966.

Weber, A., Middleton, D.J., Clark, J.L. & Möller, M. (2020). Keys to the infrafamilial taxa and genera of Gesneriaceae. Rheedea 30(1): 5–47.

Xin, Z.-B., Fu, L.-F., Maciejewski, S., Huang, Z.-J., Do, T.V. & Wen, F. (2021). *Chayamaritia vietnamensis* (Gesneriaceae), a new species from Son La Province, northern Vietnam. PhytoKeys 177: 43–53.