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Chelonopsis thailandica, a new species and new record of *Chelonopsis* (Lamiaceae) from Thailand

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ABSTRACT

Chelonopsis thailandica A.J.Paton, Suddee & Bongch. is described and illustrated here. The new species belongs in *Chelonopsis* Sect. *Aequidens* being a small shrub with an equally lobed calyx, lanceolate leaves and eglandular hairs. The new species differs from the other species in the section in having a remotely toothed leaf margin and denser indumentum. This is the first species of *Chelonopsis* to be recorded from Thailand. Only one specimen has been seen and it is possible that the habitat where the collection was made in Chiang Mai Province no longer exists.

KEYWORDS: Chiang Mai, endemic, Gomphostemmateae, Mae Rim district, new species.

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INTRODUCTION

The genus *Chelonopsis* Miq. is mainly found in south-west China and Japan with one species found in Kashmir (Xiang *et al.*, 2008), in addition to the new species from Thailand described here. The genus is placed in the Gomphostemmateae along with *Gomphostemma* Wall. ex Benth. with another genus, *Bostrychanthera* Benth., having been merged into *Chelonopsis* (Xiang *et al.*, 2013). Xiang *et al.* (2008, 2013) divided the genus into two subgenera: subgen. *Chelonopsis* are herbs and have an unequally lobed calyx, whereas subgen. *Aequidens* C.Y.Wu & H.W.Li are shrubs with equally lobed calyces. Wu & Li (1965, 1977) and Xiang *et al.* (2013) further divided subgen. *Aequidens* into two sections: sect. *Microphyllum* C.Y.Wu & H.W.Li with ovate leaves and clavate glandular hairs, and sect. *Aequidens* C.Y.Wu & H.W.Li has lanceolate leaves and lacks clavate glandular hairs, which is similar to the new species described here. In all, Xiang *et al.* (2013) recognized 14 species, but only two, *Chelonopsis souliei* (Bonati) Merr. and *C. forrestii* J.Anthony belong in sect. *Aequidens*. The accounts of Xiang *et al.* (2008, 2013) are similar to that of Li & Hedge (1994) in Flora of China, the main difference relevant to the description of the new species is that *C. albiflora* Pax & K.Hoffm. recognized by Li & Hedge (1994), is placed in synonymy of *C. souliei* by Xiang *et al.* (2008).

The new species described here was discovered from studying a specimen on two sheets in the herbarium of Queen Sirikit Botanic Garden. The specimen was collected on a road in the Pong Yaeng Subdistrict between Samoeng and Mae Rim Districts in 1996, which was upgraded to a tarmac road in around 2004. Despite several targeted field work attempts to find more specimens of this plant by the authors and staff of QBG, and searches in major European and Thai herbaria in preparation of the Lamiaceae account for Flora of Thailand by the authors, no further specimen has been found. It is possible that this plant is now extinct due to destruction of its habitat. The specimen is incomplete and only has one open corolla. Despite the lack of fruiting material and limited flowering material, this specimen clearly belongs in *Chelonopsis* having a dilated

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corolla tube with short lobes, campanulate calyces and few-flowered cymes in the axils of leaf-like bracts. It shares the characters of sect. *Aequidens* by having eglandular hairs and lanceolate leaves, but differs from related Chinese species, *C. forrestii* and *C. souliei* as described below.

DESCRIPTION

Chleonopsis thailandica A.J.Paton, Suddee & Bongch. **sp. nov.** Type: Thailand, Chiang Mai, Mae Rim to Samoeng, 25 Sept. 1996, *Nanakorn et al. 7634* (holotype **QBG!**-2 sheets). Figs. 1 & 2.

Shrub to 0.4 m tall. *Stems* quadrangular, white pubescent with simple hairs. *Leaves* opposite, petiolate, lanceolate, 40–60 × 10–20 mm, apex obtuse to acute, base rounded to broadly cuneate, margin with few remote serrate teeth, upper leaves entire or repand, white pubescent; petioles 5–15 mm long. *Inflorescence* terminal, lax with 1-flowered pendulous cymes in the axils of leaf-like bracts; pedicels ca 1 mm long. *Calyx* campanulate, 5-lobed, weakly-2 lipped with posterior lobes slightly longer; lobes narrowly lanceolate. *Corolla* white, 12–15 mm long; tube dilating from base; posterior lip 1-lobed, very short; anterior lip 3-lobed, 3–4 mm long. *Nutlets* not seen.

Thailand.— NORTHERN: Chiang Mai

Distribution.— Endemic to Thailand, only known from the type locality.

Ecology.— Open dry deciduous dipterocarp forest.

Phenology.— Flowering: September.

Conservation status.— Likely to be Critically Endangered or possibly Extinct.

Note.— This new species differs from both species of *Chelonopsis* sect. *Aequidens* by having a leaf margin with serrations irregular and distant in the lower leaves and repand in upper leaves, rather than regularly serrate, and a whitish densely pubescent indumentum, rather than being pubescent to almost glabrous. The new species further differs from *C. souliei* by having strictly opposite leaves, rather than in whorls of three, and one- rather than three-flowered cymes. Additional differences from *C. forrestii* include having a white rather than yellow corolla, and in being a smaller plant, ca 0.4 m tall as opposed to 1–2.5 m tall. The habitat of *C. thailandica* is slightly different from other species in the section as they are usually found in hot dry river valleys rather than dry dipterocarp woodland. Unfortunately, the type specimen of *C. thailandica* only has one open flower and it was not possible to dissect this.

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Figure 1. *Chelonopsis thailandica*: Sheet I (from *Nannakorn 7634* (QBG)). Photos by P. Srisanga.

Figure 2. *Chelonopsis thailandica*: Sheet II (from *Nannakorn 7634* (QBG)). Photos by P. Srisanga.