



Hanguana thailandica (Hanguanaceae): a new peat swamp forest species from Thailand

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A new species of *Hanguana* (Hanguanaceae), *H. thailandica*, is described and illustrated from Trang province, Peninsular Thailand. This is the second *Hanguana* species recorded in Thailand, along with the widespread helophytic *H. malayana*. The species is morphologically similar to *Hanguana exultans* and *H. nitens* found in swamp forests habitats in southern Peninsular Malaysia and Singapore. The conservation status of this species is assessed as Endangered according to the IUCN Red List Category and Criteria.

Keywords: Commelinales, IUCN, Peat swamp forest, Peninsular Thailand, Trang

Introduction

Hanguanaceae (Commelinales) is a small monogeneric family growing in many different forest types across South and Southeast Asia, exhibiting the highest diversity in the Sunda region (Leong-Škorničková & Boyce 2015). A poor understanding in both its taxonomy and distribution has hampered the classification of the genus *Hanguana* Blume (1827: 15). The lack of clarity can be attributed to the loss upon drying of many useful field characters, historical over-reliance on poorly preserved and badly documented specimens, and very few reliable field observations (Siti Nurfazilah *et al.* 2011). This has led to most regional treatments such as those for Malesia and Thailand (Backer 1951, Larsen 1972) specifying the existence of single relatively common species, *Hanguana malayana* (Jack 1820: 25) Merrill (1915:3), across the region.

Recent taxonomic work documenting *Hanguana* in the field has led to the understanding that the genus is comprised of numerous ecologically discrete species, found in different forest types. This led to the results that *H. malayana* was re-circumscribed in 2010 as a habitat specific colonial freshwater helophyte and fourteen new species were described from Peninsular Malaysia, Sarawak, Sabah and Singapore (Siti Nurfazilah *et al.* 2010, 2011, Mohd Fahmi *et al.* 2012, Niissalo *et al.* 2014, Leong-Škorničková & Boyce 2015). While carrying out field work in a peat swamp forest in Trang Province, Peninsular Thailand, the authors encountered a clumping *Hanguana* not matching any of the forest species so far described in the genus. This overlooked species has been collected from the same location five times since 1994.

The *Hanguana* species we found in the peat swamp in Trang Province is morphologically similar to *Hanguana exultans* Siti Nurfazilah *et al.* (2010: 207), a species endemic to peat swamp forest in Johore, Peninsular Malaysia and *H. nitens* Siti Nurfazilah *et al.* (2010: 207), occurring in similar habitats in Johore and Singapore. However, the new species is different from *H. nitens* in having solitary stems instead of forming large rhizotomous colonies, and from both *H. exultans* and *H. nitens* in flower and inflorescence characters. We describe this new species here as *Hanguana thailandica*, the first *Hanguana* species based on material from Thailand. *Hanguana thailandica* is different from the only other *Hanguana* recorded from Thailand, *Hanguana malayana* (Larsen 1972) in being a solitary forest species: *Hanguana malayana*, in its current circumscription (Siti Nurfazilah 2010) is a massive helophyte with a floating rhizome network. *Hanguana malayana* s.s. is present in Thailand, but its previous circumscription in the country has been much too broad.