

Short Note

A New Record of *Hoya* (Asclepiadaceae) from Southern Thailand

MANTT KIDYOO^{1*} AND JAREARNSAK SAE WAI²

¹Department of Botany, Faculty of Science, Chulalongkorn University, Pathumwan,
Bangkok, 10330, Thailand.

²PSU-Herbarium, Princess Maha Chakri Sirindhorn Natural History Museum, Faculty of Science, Prince of
Songkla University, Songkhla, 90112, Thailand.

A new addition to the known list of Thai *Hoya* flora, *Hoya pusilla* Rintz has been found in southern Thailand. This new recording of this species in Thailand is reported, and the species is described and illustrated in this paper.

The genus *Hoya* R. Br. is a member of the milkweed family, Asclepiadaceae, and consists of at least 200 species which occur from China, Southeast Asia to Oceania¹. Their common characters are: milky sap in all parts, opposite leaves, umbelliform inflorescence and a star-shaped corona. Presently, there are approximately 40 species of *Hoya* in Thailand^{2,3,4}. More work, however, is required in order to make clearer visual based taxonomic keys for the identification of the members of this genus. Towards this aim, specimens of *Hoya* were collected from southern Thailand and one of them is now reported as a new species record for this country and important biodiversity region.

Herbarium specimens of *Hoyas* collected from the Betong district, Yala province (*J. Wai* 778BCU, 914PSU), southern Thailand, were determined to species level using the keys to species in Hooker (1883)⁵, Constantin (1912)⁶, Kerr (1951)⁷, Rintz (1978)⁸ and Li et al. (1995)⁹. For comparisons, we examined herbarium specimens deposited at the following herbariums: BCU, PSU, K, L, P, BM and BKF.

The morphological characters of the *Hoya* specimens collected, examined and reported here (*J. Wai* 778BCU, 914PSU) were found to fit well with the key to species and description of *H. pusilla* Rintz in Rintz (1978)⁸. It also matched well with the herbarium and type specimens of this species, which are deposited at Leiden herbarium (L). Accordingly, *H. pusilla* Rintz is newly recorded for Thailand. A description of this species given below is based on these Thai materials.

*Corresponding author:

E-mail: kidyoo_m@yahoo.co.th

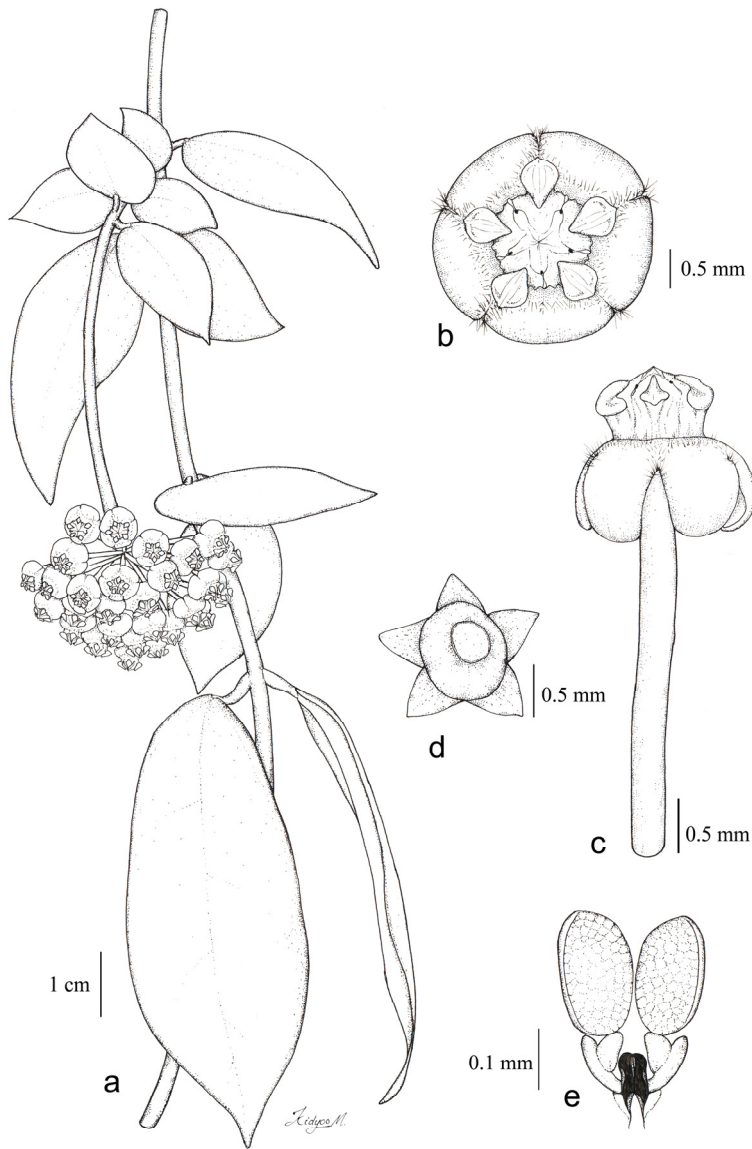


FIGURE 1. *Hoya pusilla* Rintz. (a) flowering branch, (b) flower in top view, (c) flower in side view, (d) calyx and (e) pollinarium. Drawn by Manit Kidyoo from J. Wai 778 (BCU), 914 (PSU).

Hoya pusilla Rintz, Malayan Nat. J. 30 (3-4): 492, 1978. (Fig. 1)

A small climbing epiphyte. *Stem* and branches slender, 2 - 3 mm in diam., greenish

or greyish color, glabrous; internodes 1 - 10 cm long. *Leaves*: petiole glabrous, 2 - 8 mm long; blade coriaceous, ovate or elliptic to oblanceolate, 1.5 - 6 cm long, 1 - 3 cm wide, glabrous, upper surface green, lower surface slightly paler, apex acute to acuminate, base

obtuse to rounded; midrib and nerves inconspicuous or slightly raised above, lateral veins 4 - 5 pairs. *Inflorescences* auxiliary or terminal, positively geotropic, 17-32-flowered; peduncle 5 - 11 cm long, glabrous. *Pedicels* various in length, 6 - 11 mm long, creamy with scattered reddish purple glands, glabrous. *Calyx* reddish purple, lobes nearly divided, ovate, 0.6 - 0.7 mm long, 0.5 - 0.6 mm wide, apex acute, outer surface minutely papillate. *Corolla* creamy white to pinkish white, lobes recurved, ovate, 2.5 - 3 mm long, 2 mm wide, apex acute, inner surface sparsely pilose at nearly the base of lobes, outside glabrous. *Corona* less than half size of corolla, 2.2 - 2.5 mm in diam., coronal scales obvate, creamy or pinkish cream, 0.8 - 1 mm long, 0.6 - 0.8 mm wide, upper surface convex, outer angle obtuse, inner angle acute, reddish purple, slightly raised up; anther appendages white, covering the receptive area of stigma. *Pollinarium*: pollinia obliquely oblong, yellow, 0.20 - 0.23 mm long, 0.10 - 0.13 mm wide; caudicles triangular, hyaline with oblong wing; corpusculum reddish brown, cylindrical-oblong, 0.10 - 0.14 mm long, 0.05 - 0.06 mm wide. *Stigma* conical, subquadrangular. *Fruit* not seen.

Thailand.— PENINSULAR: Yala [Betong, *J. Wai* 778 (BCU), 914 (PSU)].

Distribution.— Peninsular Malaysia [RER 55 holotype L!, isotype PER!, KLU!].

Ecology.— Occurs on trees near streams, in both semi-exposed and shady areas in moist evergreen forest, alt. 550 - 600 m. Very rare. Flowering almost all year round, more flowers in the wet season.

Hoya pusilla Rintz was first described from specimens collected by Rintz in Sangahi Tahan, Kuala Putek Camp, Pahang, Malaysia, in 1976. In this study, the specimens were collected from plants

growing on trees in an evergreen forest in southern Thailand. *H. pusilla* Rintz is closely related to *H. lacunosa* Blume, but differs both in size and form of the flowers. The flowers of *H. lacunosa* are larger than those of *H. pusilla*. *H. lacunosa* is densely pubescent on the inner surface of the corolla lobes with an ovate to elliptic coronal scale with an acute apex, while *H. pusilla* has only a ring of long hair on the inner surface near the base of the corolla lobes and has obovate coronal scales with an obtuse apex.

ACKNOWLEDGEMENTS

We would like to express our thanks to Assoc. Prof. Dr. Obchant Thaithong for her criticism of the manuscript. This work was financially supported by Chulalongkorn University through the 'Plants of Thailand Research Unit' and the 'Grants for Development of New Faculty Staff'.

LITERATURE CITED

1. Wanntorp, L., Kocyan, A., van Donkelaar, R. and Renner, S.S. 2006. Towards a monophyletic *Hoya* (Marsdenieae, Apocynaceae): Inferences from the chloroplast trnL region and the rbcL-atpB spacer. *Systematic Botany* 31: 586-596.
2. Thaithong, O. 1995. The Genus *Hoya* in Thailand. In: R. Kiew (ed.), *The Taxonomy and Phytochemistry of the Asclepiadaceae in Tropical Asia*, Universiti Pertanian, Malaysia, pp.83-94.
3. Kidyoo, M. and Thaithong, O. 2008. A new species of *Hoya* (Asclepiadaceae) from southern Thailand. *Blumea* 52: 327-330.
4. Wai, J.S., Sridith, K. and Thaithong, O. 2008. *Hoya imperialis* Lindl. (Apocynaceae: Asclepiadoideae), a new record for Thailand. *Thai Forest Bulletin (Botany)*, 36: 8185.
5. Hooker, J. D. 1883. *Hoya* Br. In: J. D. Hooker (ed.), *Flora of British India* Vol. IV, pp. 52-63. London: Reeve & Co.
6. Constantin, J. 1912. *Hoya* Br. In: M. H. Lecomte (ed.), *Fl. Gen. Indo-Chine* Vol. 4, pp.125-139. Paris: Masson.

7. Kerr, A. F. G. 1951. *Hoya* R. Br. In: W.G. Craib and A.F.G. Kerr (eds.), *Florae Siamensis Enumeratio* Vol. III, part 1, pp. 35-42. Bangkok: Siam Society.
8. Rintz, R. E. 1978. The Peninsular Malaysian Species of *Hoya* (Asclepiadaceae). *Malaysian Nature Journal*, 30: 467-522.
9. Li, P.T, Gilbert, M. G. and Stevens, W. D. 1995. Asclepiadaceae. In Z. Y. Wu and P. H. Raven (eds.), *Flora of China*, Vol.16, Science Press & Missouri Botanical Garden, pp.189-270.

Received: 16 July 2009

Accepted: 24 August 2009