Progress of Taxonomic Study on the Genus *Tetrastigma* (Miq.) Planch. (Vitaceae) in Thailand

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Introduction

Tetrastigma consists of about 100 species. They are mainly distributed in the Asian tropics and subtropics extending to Australia, ranging from India to China, across Southeast Asia and eastward to Fiji (Wen, 2007). Sixteen species have been recorded for Thailand (Craib, 1931).

The genus is characterized by its unbranched to digitately branched tendrils, dioecious sexual system and 4-lobed stigmas in female flowers. The genus is divided into two subgenera based on tendril morphology; subg. *Palmicirrata* has digitately branched tendrils and subg. *Tetrastigma* possesses unbranched or biforked tendrils. Subgenus *Tetrastigma* includes two sections based on fruit and seed morphology; sect. *Tetrastigma* is characterized by its globose to ellipsoid, 1–2-seeded berries, and M to T-shaped endosperm in cross section, whereas sect. *Carinata* has pyriform and 3 or 4-seeded berries and T-shaped endosperm in cross section (Latiff, 1983; Chen *et al.*, 2011).

The genus is well-known for its unique host–parasite associated with the member of Rafflesiaceae. Several species of *Tetrastigma* are host plants for all three genera *Rafflesia*, *Rhizanthes* Dumort., and *Sapria* Griffith. Therefore this makes the *Tetrastigma* species are very important in sustenance of Rafflesiaceous plant.

Material and Methods

Taxonomic literatures and specimens deposited in BCU, BK, BKF, KKU, QBG and TCD herbaria were examined. Field work was carried out throughout the country between November 2010 and September 2011.

Results and Discussion

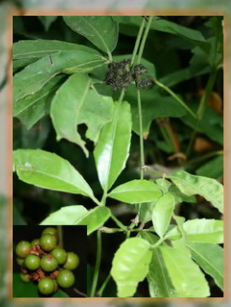
The preliminary result, based mainly on a literature review and herbarium specimens, showed that there are 43 names of *Tetrastigma* in Thailand. Among these some are synonyms and some are misidentified. Therefore it could be expected about 22 species in Thailand (Table 1). However, more data are still required for a complete revision of the genus in Thailand. The result from field work indicated that the member of this genus are commonly found in forest edges or stream banks in evergreen forest. Seven species were recorded to be the hosts of various Rafflesiaceous plants in Thailand, viz. *T. harmandi*, *T. hookeri*, *T. laoticum*, *T. leucostaphylum*, *T. papillosum*, *T. pedunculare* and *T. quadrangulum*.

For further studies more field collections will be made and morphology, pollen morphology and leaf anatomy will be examined.

T. quadrangulum

T. cf. napaulense

T. cruciatum



Tetrastigma sp. 1

Tetrastigma sp. 2

Tetrastigma sp. 3

Tetrastigma sp. 4

Table 1. Lists of accepted species of *Tetrastigma* in Thailand

Taxon	Taxon
1. *T. apiculatum* Gagnep.	12. *T. laoticum* Gagnep.
2. *T. bambusetorum* Craib	13. *T. leucostaphyllum* (Dennst.) Alston
3. *T. campylocarpum* (Kurz) Planch.	14. *T. napaulense* (DC.) C.L.Li
4. *T. crassipes* Planch.	15. *T. obovatum* (M.A. Lawson) Gagnep.
5. *T. cruciatum* Craib & Gagnep.	16. *T. papillosum* (Bl.) Planch.
6. *T. delavayi* Gagnep.	17. *T. pedunculare* (Wallich ex Lawson) Planch.
7. *T. dubium* (Laws.) Planch.	18. *T. quadrangulum* Gagnep. & Craib
8. *T. garrettii* Gagnep.	19. *T. rumicispermum* (M.A. Lawson) Planch.
9. *T. godefroyanum* Planch.	20. *T. serrulatum* (Roxb.) Planch.
10. *T. harmandii* Planch.	21. *T. siamense* Gagnep. & Craib
11. *T. hookeri* (Lawson) Planch.	22. *T. tenue* Craib

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