



## The lichen family Physciaceae in Thailand—I. The genus *Pyxine*

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### Abstract

A revision of the *Pyxine* collections from Thailand is presented. Sixteen previously described species were found in this material and descriptions are provided for *P. asiatica*, *P. australiensis*, *P. coccifera*, *P. cocoës*, *P. cognata*, *P. coralligera*, *P. cylindrica*, *P. daedalea*, *P. meissnerina*, *P. petricola*, *P. philippina*, *P. profallax*, *P. retirugella*, *P. schmidtii*, *P. sorediata* and *P. subcinerea*. Descriptions are also included in the paper for *P. berteriana* and *P. farinosa*, because these species may well occur in Thailand. *Pyxine boonpragobiana* Kalb & Mongkolsuk, *P. dactyloschmidtii* Kalb & Mongkolsuk, *P. pseudokeralensis* Kalb, Mongkolsuk & Buaruang, and *P. subcoralligera* Kalb, Mongkolsuk & Boonpragob are described as new to science. A key for the identification of all species is provided. Terpene profiles for similar species which cannot be distinguished by spot-tests are presented and Rf-values for the most important terpenes are given. Photos showing the new species as well as characteristic structures in the genus are also provided.

**Key words:** Asia, lichenized Ascomycota, new species, taxonomy

### Introduction

In tropical rainforests, members of Graphidaceae play a particularly important role in the composition of lichen communities. Members of Physciaceae however dominate in open situations, such as on road side trees, in thornbush forests, dry dipterocarp forests, coastal vegetation or dry evergreen forests (Cáceres *et al.* 2007, 2008). The genus *Pyxine* Fr. is quite large and consists of ca. 70 mainly pantropical to subtropical species with a few species extending into temperate or oceanic regions (Elix 2009, Kalb 1987, 1994).

The first species recorded for Thailand were *Pyxine asiatica* and *P. schmidtii*, both from Trat province, Koh Chang Island in the Gulf of Thailand (Vainio 1907) and *P. retirugella* var. *laevior* (= *P. retirugella*) from nearby Lem Ngob (Vainio 1909). Wolseley *et al.* (2002) added *P. coccifera*, *P. consocians* (= *P. retirugella*) and *P. coralligera* from Chiang Mai province, bringing the number of species to five. Subsequently Aptroot *et al.* (2007) recorded *Pyxine cylindrica*, *P. daedalea*, *P. farinosa*, *P. obscurascens*, *P. petricola*, *P. sorediata* and *P. subcinerea* from Chiang Mai. Thus before our study, twelve *Pyxine* species were known to occur in Thailand. More than 200 collections were studied for this paper. As there are many regions in Thailand still underrepresented in the herbaria, more records could well follow. This is the first of a series of regional revisions of the family Physciaceae in Thailand.

### Material and methods

All collections of *Pyxine* housed in RAMK and hb. K. Kalb were studied, but specimens from herbaria