

2-004-4

New genus (*Dactylariopsis*), novel species and first records of asexual freshwater fungi in Thailand

Nattawut Boonyuen^{1,2}, Charuwan Chuaseeharonnachai^{1,2}, Watcharee Saotap^{1,2},
Salilaporn Nuankaew^{1,2}, Sayanh Somrithipol², Papichaya Kwantong^{1,2},
Nattapol Pornputtpong³, E.B. Gareth Jone⁴

¹National Biobank of Thailand (NBT), National Science and Technology Development Agency (NSTDA), Thailand

²BIOTEC, National Science and Technology Development Agency (NSTDA), Thailand

³Department of Biochemistry and Microbiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand

⁴Department of Botany and Microbiology, College of Science, King Saud University, Kingdom of Saudi Arabia

Purpose: During an investigation of freshwater fungi associated with submerged woods in Thai forests, four micro-fungi (i.e. *Dactylariopsis altospora* gen. et sp. nov., *Vanakripa thailandica* sp. nov., *Endophragmiella bitunicata* sp. nov. and *Triadelphia hexaformispora* sp. nov.), are described as new taxa to science. In addition, *E. multiramosa* (collected in Bueng Kan Province) and *E. resiniae* (Nakhon Ratchasima Province) are reported for the first time as new records for Thailand. Descriptions, illustrations, and distributions are given for each species.

Methods: Based on a combination of morphological and phylogenetic analysis of a concatenated dataset of multi-loci.

Results and conclusions: *D. altospora*, *T. hexaformispora* (Nan Province), *V. thailandica* (Chiang Mai Province) confirms their placement of *D. altospora*, *V. thailandica*, and *T. hexaformispora* within Sordariales, Microascales and Conioscyphales, respectively. Morphologically, our comparison data indicated that *E. bitunicata* sp. nov., discovered in Nakhonayok Province is uniquely distinct from accepted species in the genus. This study supports the establishment of the new taxa and increases our knowledge of freshwater fungal asexual morphs in the Kingdom of Thailand.