

(Ostropales, Ascomycota)
Graphidaceae of THAILAND 2:

1

The genera *Astrochapsa*, *Chapsa*, *Compositrema*, *Nitidochapsa*, *Pseudochapsa* & *Pseudotopeliopsis*

Khwanruan Butsatorn-Papong, H. Thorsten Lumbsch & Robert Lücking

Photos by K. Butsatorn-Papong. Produced by K. Butsatorn-Papong, H.T. Lumbsch, R. Lücking. Support from the Thailand Research Fund, C. Keller, A. Mellon Foundation.

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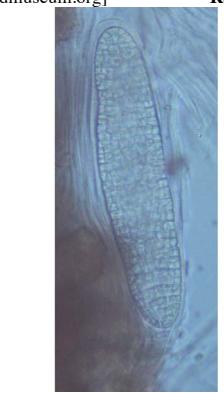
1 *Astrochapsa astroidea*



2 *Astrochapsa thailandica*



3 *Astrochapsa thailandica*



4 *Astrochapsa thailandica*

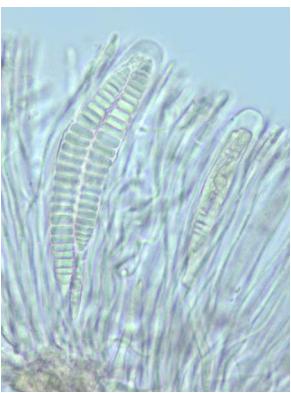


5 *Astrochapsa thailandica*

Muriform ascospore



6 *Chapsa indica*



7 *Chapsa indica*
Asci with ascospores



8 *Chapsa leprocarpoides*



9 *Chapsa patens*



10 *Chapsa patens*



11 *Chapsa pulvereodiscus*



12 *Chapsa pulvereodiscus*



13 *Chapsa pulvereodiscus*



14 *Chapsa pulvereodiscus*

Asci with ascospores



15 *Chapsa pulvereodiscus*
Submuriform ascospores



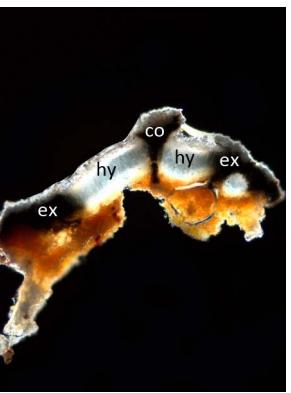
16 *Compositrema thailandicum*



17 *Compositrema thailandicum*

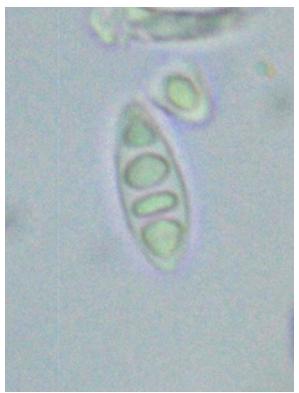


18 *Compositrema thailandicum*



19 *Compositrema thailandicum*

Cross section through ascoma



20 *Compositrema thailandicum*
Transversely septate ascospore

co = columella, ex = excipulum, hy = hymenium

(Ostropales, Ascomycota)
Graphidaceae of THAILAND 2:

2

The genera *Astrochapsa*, *Chapsa*, *Compositrema*, *Nitidochapsa*, *Pseudochapsa* & *Pseudotopeliopsis*

Khwanruan Butsatorn-Papong, H. Thorsten Lumbsch & Robert Lücking

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21 *Nitidochapsa leprieurii*



22 *Nitidochapsa leprieurii*



23 *Nitidochapsa leprieurii*



24 *Nitidochapsa leprieurii*



25 *Pseudochapsa pseudophlyctis*



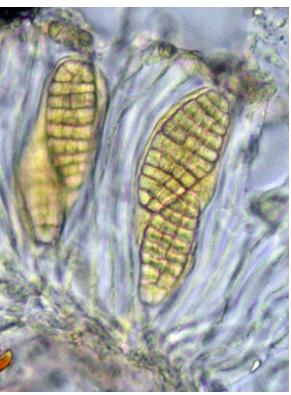
26 *Pseudochapsa pseudophlyctis*



27 *Pseudochapsa pseudophlyctis*



28 *Pseudochapsa pseudophlyctis*



29 *Pseudochapsa pseudophlyctis*



Muriform ascospores



31 *Pseudotopeliopsis aggregata*



32 *Pseudotopeliopsis aggregata*



33 *Pseudotopeliopsis aggregata*
Asci with ascospores



34 *Pseudotopeliopsis aggregata*
Transversely septate ascospores



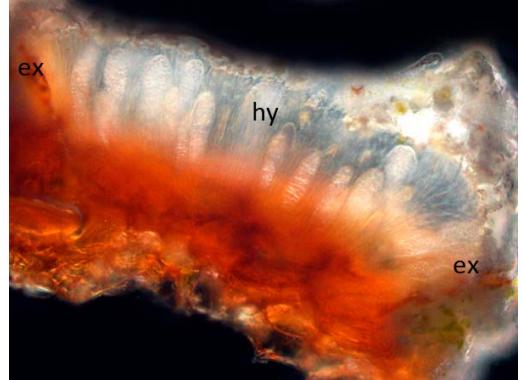
35 *Pseudotopeliopsis aggregata*
Transversely septate ascospore



36 Tropical rainforest



37 Habitat for Graphidaceae
lichens



Pseudochapsa pseudophlyctis
Cross section through ascoma

co = columella, ex = excipule, hy = hymenium