



**NATIONAL CENTER FOR GENETIC ENGINEERING AND
BIOTECHNOLOGY**

The final report for BRT

Between

May 2000 - May 2001

On

Biodiversity and Ecological Study of freshwater Fungi in Thailand

(BRT 143016)

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3. PROJECT DURATION : May 2000 - May 2001

BIODIVERSITY AND ECOLOGICAL STUDY OF FRESHWATER FUNGI IN THAILAND

1. ABSTRACT

This work has been undertaken to study and carry on the diversity of freshwater fungi with twenty-four collecting trips in Thailand. Two hundred and thirty-four species of freshwater fungi were reported in this study, These included 52 Ascomycota, 4 Basidiomycete and 178 Mitosporic fungi representing 22%, 2% and 76% respectively of the total taxa. Most are new records for freshwater habitats and Thailand.

An ecological study was also undertaken of the freshwater lignicolous fungi in two different streams at Khao Yai National Park. Five timbers (*Sindora siamensis* Teijsm.ex Miq.T, *Tectona grandis* Linn.f.T., *Mangifera caloneura* Kurz T., *Stereospermum neuranthum* Kurz T, *Buchanania latifolia* Roxb. T) were exposed in these streams and the fungi colonising them recorded for preliminary data). Seven hundred and eighteen specimens were collected in this study with 75 species on test blocks and 188 species on natural submerged wood. While 318 strains of freshwater fungi were isolated in to axenic media. All freshwater specimens were deposited in the BIOTEC herbarium, and all cultures were preserved in BIOTEC Culture Collection.

2. PROJECT OBJECTIVES SUMMARY

1. To collect and document freshwater fungi colonizing a wide variety of woods in freshwater streams from National Parks in Thailand.
2. To elucidate their ecology:
 - at different geographic areas of Thailand
 - from a wider range of wood species
 - over a longer period of time
3. Isolate freshwater fungi for the BIOTEC bioactive screening programme and elucidate their anamorph / teleomorph relationships.
4. Investigate selected species at the scanning electron microscope level for taxonomic study.

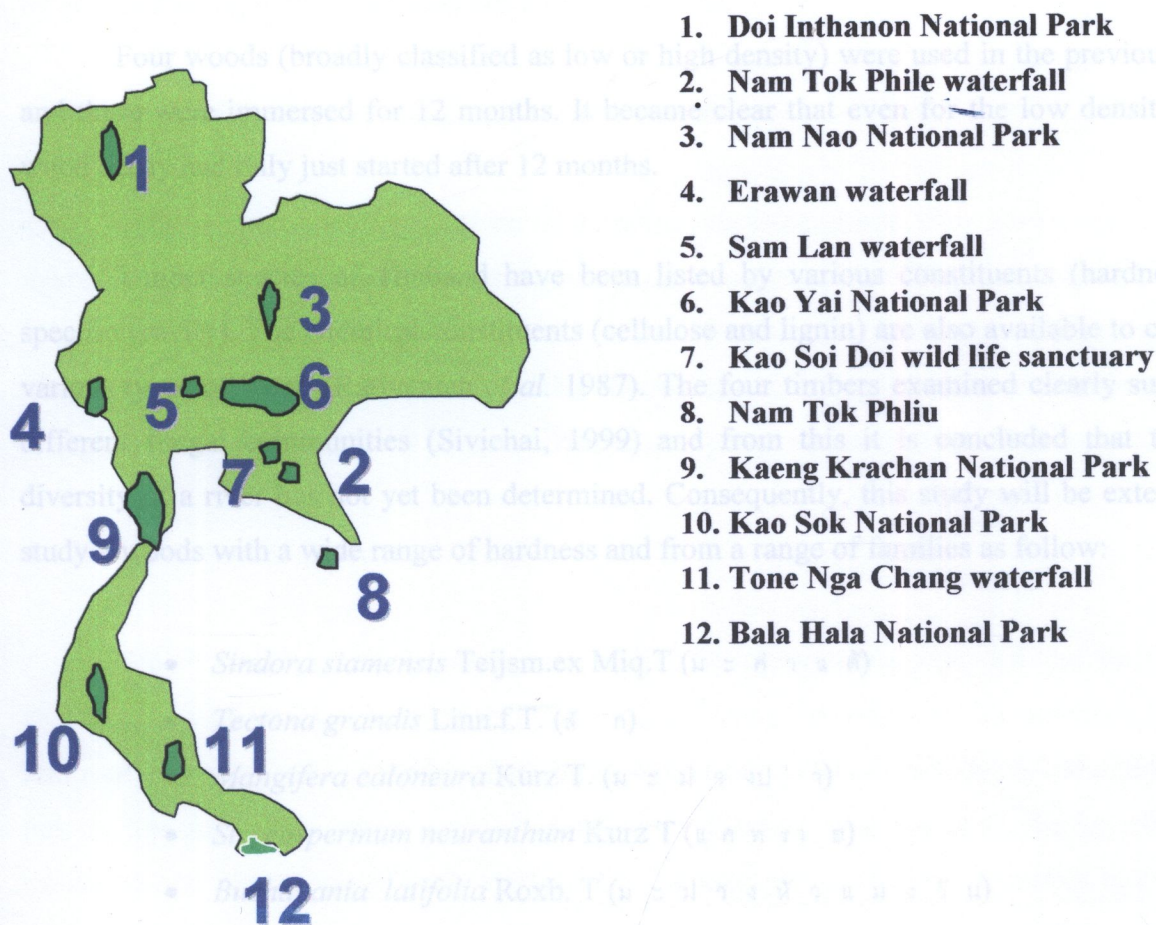
3. PROJECT DURATION : May 2000 – May 2001

4. MATERIAL AND METHODS

In this study, driftwood or submerged wood was collected from freshwater streams at various sites in Thailand (Figure 1) with 24 trips were made from North to South as below.

1. Nam Tok Phile Waterfall and Khao Soi Doa Wildlife Sanctuary, Chantaburi, 25-26/03/00
2. Km29.2 at Kao Yai National Park, Prachinburi, 18/05/00
3. Nam Nao National Park, Petchabun, 24/05/00
4. Tad Ta Phu at Khao Yai National Park, Nakornratchasima and Km29.2 at Khao Yai National Park, Prachinburi, 12/06/00
5. Hala Bala, Narathivat, 21-24/07/00
6. Kao Keaw, Chonburi, 12/08/00
7. Samlan Waterfall, Saraburi, 30/08/00
8. Jed Kot Waterfall, Kao Yai National Park, Saraburi, 30/08/00
9. Nam Tok Phile Waterfall, and Kao Soi Doa Wildlife Sanguary, Chantaburi, 18-20/09/00
10. Krang Kra Jan National Park, 25-28/09/00
11. Tad Ta Phu at Khao Yai National Park, Nakornratchasima and Km29.2 at Khao Yai National Park, Prachinburi, 13/11/00
12. Kho Change, Trait, 18/12/00
13. Kao Sok National Park, Surathani, 9/01/01
14. Thanrattana Waterfall, Khao Yai National Park Nakornnayok, 4/12/00
15. Nang-long Waterfall, Khao Yai National Park, Nakornnayok, 5/12/00
16. Pha kra jai Waterfall, Khao Yai National Park, Nakornnayok, 5/12/00
17. Doi Inthanon National Park, Cheingmai, 7/12/00
18. Lanlak, Na-rong, Sarika and Wang Takai Waterfall at Khao Yai National Park Nakornnayok, 12/12/00
19. Balahala and Srinthorn peat swamp forest, Narathiwat, 15-18/12/00
20. Erawan National Park, Khanchanaburi, 26 /12/00
21. Khao Eto, Sompoi, Tachore and Nang long water fall waterfall at Khao Yai National Park ,Prachinburi 28/03/01
22. Hala Bala, Narathiwat, 2/05/01
23. Tone Nga-Chang wild life sanctuary, Songkla, 3/05/01
24. Phomalok and Krung –Ching Waterfall, Khao-Luang National Park, Nakornsrithamarat 4/5/01

Figure 1 Collected sites in this study



4.1 Collection, colonization and ecology of freshwater fungi

- Natural Woods:

Natural submerged woods will be randomly collected from a wide variety of rivers in the north to the south of Thailand, placed in plastic bags and returned to the laboratory. Samples will be incubated (at 20 °C) in plastic boxes on sterile tissue paper in a cabinet with cool, white fluorescent light. Fungi will be examined with a stereomicroscope and compound microscope. Preparations will be made in water, then mounted in lactophenol-cotton blue and sealed with polyvinyl alcohol.

- Test Blocks:

Two sites in Khao Yai National Park will be used for the exposure of test blocks:

- Km29.2 which dries out in the dry season (March-May)
- Tad Ta Phu where water flows all the year

This is proposed that the two streams used in the PhD study will continue to be used. These sites allow for comparison of permanent and ephemeral lotic environments.

Four woods (broadly classified as low or high density) were used in the previous study and these were immersed for 12 months. It became clear that even for the low density (soft) wood decay had only just started after 12 months.

Timber species of Thailand have been listed by various constituents (hardness and specific gravity). The chemical constituents (cellulose and lignin) are also available to compare various types of wood (Rativanich *et al.* 1987). The four timbers examined clearly supported different fungal communities (Sivichai, 1999) and from this it is concluded that the true diversity of a river has not yet been determined. Consequently, this study will be extended to study 5 woods with a wide range of hardness and from a range of families as follow:

- *Sindora siamensis* Teijsm.ex Miq.T (มะค่าแต้)
- *Tectona grandis* Linn.f.T. (สัก)
- *Mangifera caloneura* Kurz T. (มะม่วงปราง)
- *Stereospermum neuranthum* Kurz T (แคทราญ)
- *Buchanania latifolia* Roxb. T (มะม่วงหาวมะม่วงหาว)

4.2 Methods of exposure, recover and incubation

Woods will be immersed at the start of the rainy season (May). This will ensure that in future years the one-year exposures will be retrieved after the end of the dry season. This is the period when woods are mostly found at the air-water interface.

If May is Time 0 then samples will be recovered at 1, 6 and 12 months. However, the experiment will be planed for 10 years of colonization on test blocks to looking for succession of freshwater fungi.

Test blocks of each wood species at each site will be returned immediately in a clean polystyrene foam box to the laboratory. Test blocks will be washed in tap water to remove silt and mud from the surface. Each set of test blocks will then be placed in a pre-sterilized plastic box with tissue paper layered at the base. They will be incubated at 20 °C in a cabinet with cool

white fluorescent light. To examine the distribution of freshwater fungi the samples will be assessed between week 1, months 1, 2 and 3 following removal from the river. Test blocks will be assessed using methods already developed (Sivichai, 1999).

4.3 Isolation of freshwater fungi and culture studies

Single-spore isolations will be made after examination and then grown on corn meal agar (CMA). The spores will be spread over the agar surface with a flame-sterilized inoculation loop dipped in 0.05% Triton X-100. Plates will be incubated at 20 °C in a cabinet with cool white fluorescent light and examined with a microscope each day for signs of germination. Six to eight germinated spores will be transferred to new plates and incubated in the same cabinet.

4.4 Identification of freshwater fungi

Wood samples will be examined under the stereomicroscope for the presence of ascomata, basidiomata, conidiomata and conidia. Fungi sporulating on substrata will be removed and transferred to a drop of sterile 0.05% Triton X-100 on a slide. A coverslip will be put on top and tissue paper used to absorb excess water. The material can be examined, measured and photographed with a Nomarski Differential Interference Contrast microscope. Permanent slides will be prepared by allowing a drop of lactophenol to replace the water on the slide and then the coverslip can be sealed with polyvinyl alcohol. After the completion of the study specimens on the timbers will be dried down. Herbarium material and voucher slides can be prepared and kept in the BIOTEC Herbarium (Thailand) while isolates will be transferred to the BIOTEC Culture Collection (Thailand).

5. RESULT

5.1 TAXONOMY AND DIVERSITY OF FRESHWATER FUNGI

Two-hundred and thirty-four species of freshwater fungi were reported in this study between May 2000 – May 2001 (Figure 2). These included 52 Ascomycota, 4 Basidiomycete and 178 Mitosporic fungi representing 22%, 2% and 76% respectively of the total taxa. While 75 identified genera were recorded, these include: *Acrodictys*, *Acrogenospora*, *Annulatascus*, *Anthostomella*, *Aquaphila*, *Aquasphaeria*, *Aquaticola*, *Bactrodesmium*, *Berkleasium*, *Boerlagiomyces*, *Bombardia*, *Brachydesmiella*, *Brachysporiella*, *Camposporium*, *Canalisporium*, *Cancellidium*, *Candelabrum*, *Caryospora*, *Chaetopsina*, *Chaetospermum*, *Cirrenalia*, *Cladosporium*, *Codinae*, *Dactylaria*, *Delitschia*, *Dictyochaeta*, *Dictyosporium*, *Dinemasporium*, *Elegantimycetes*, *Ellisemia*, *Fusarium*, *Gangliostilbe*, *Gonytrichum*, *Halosarpheia*, *Halosarpheia*, *Helicomycetes*, *Helicoon*, *Helicosporium*, *Helminthosporium*, *Hymenoscyphus*, *Jahnula*, *Kinotochaeta*, *Kirschsteiniothelia*, *Mamillisphaeria*, *Massarina*, *elanocephala*, *Melanochaeta*, *Monodictys*, *Monosporella*, *Mycocalia*, *Nawawia*, *Nectria*, *Ophioceras*, *Pennicillium*, *Phaeoisaria*, *Physalidium*, *Pseudohalonectria*, *Pseudospiropes*, *Savoryell*, *Sigmoidea*, *Spadicoides*, *Spirosphaera*, *Sporidesmiella*, *Sporidesmium*, *Sporoschisma*, *Stilbella*, *Taeniolella*, *Thozetella*, *Trematosphaeria*, *Trichocladium*, *Trichoderma*, *Tricladium*, *Verticillium*, *Wiesneriomyces*, *Xylomyces*.

Most of freshwater fungi in this study were reported on natural submerged wood with 188 species while the highest species number of freshwater fungi was 25 species on *Buchania latifolia*, and the lowest number on *Shorea obtusa* with only 2 species (Figure 3). However, all fungi were reported here is only from the preliminary study with less number of timbers return to the lab for examination. In all collecting sites, number of freshwater fungi was highest in Khao Yai National Park with 112 species, following with 60 species at Bala Hala and lowest with 5 species at Khao keaw (Figure 4).

Many of these remain unidentified with several taxa could not be fully identified including 51 ascomycetes, 4 basidiomycetes and 111 hyphomycetes although many of these probably are new to science and new records for Thailand. However, these await further study and identification.

Figure4. List of species number per sites.

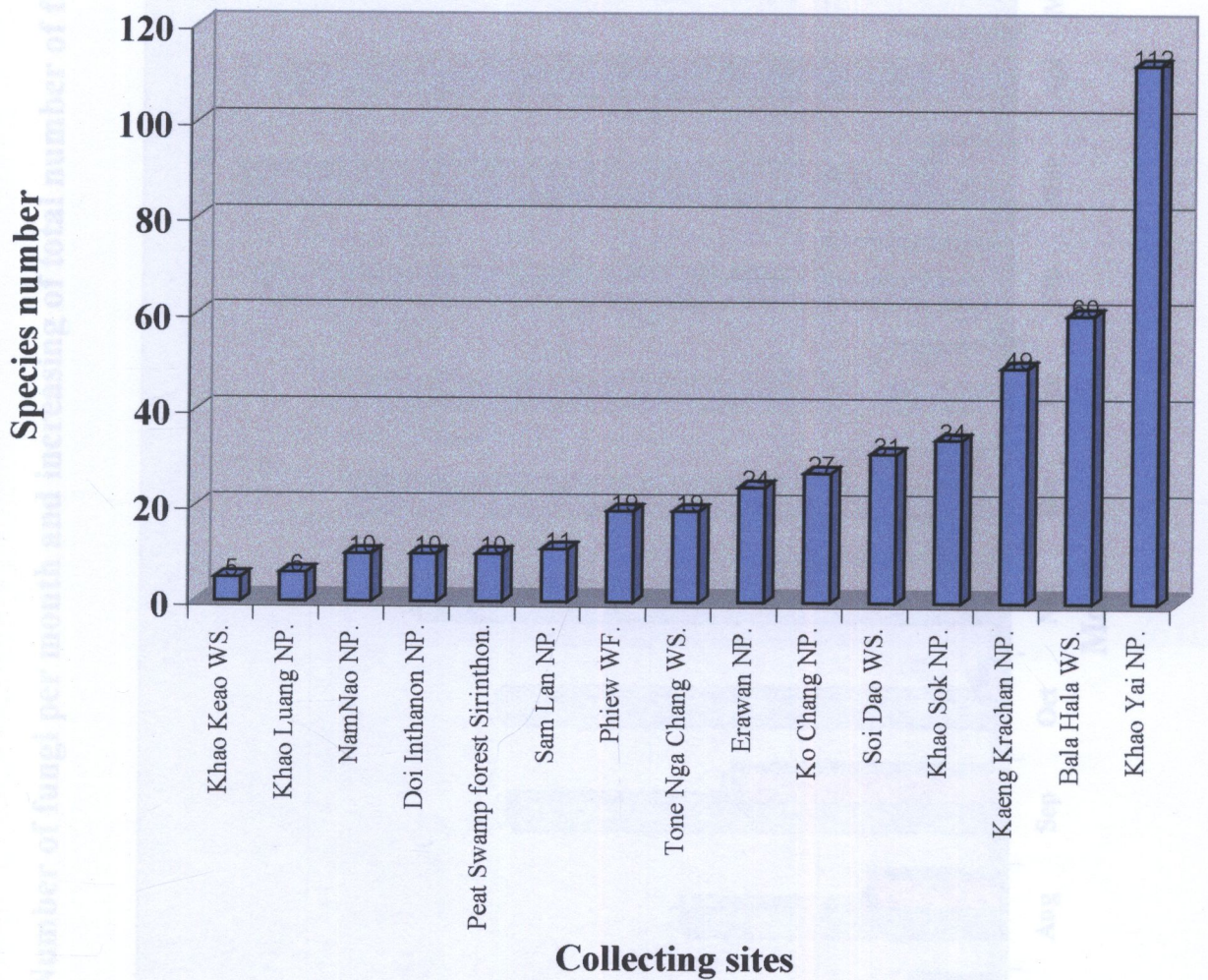


Figure2. Number of fungi per month and increasing of total number of fungi

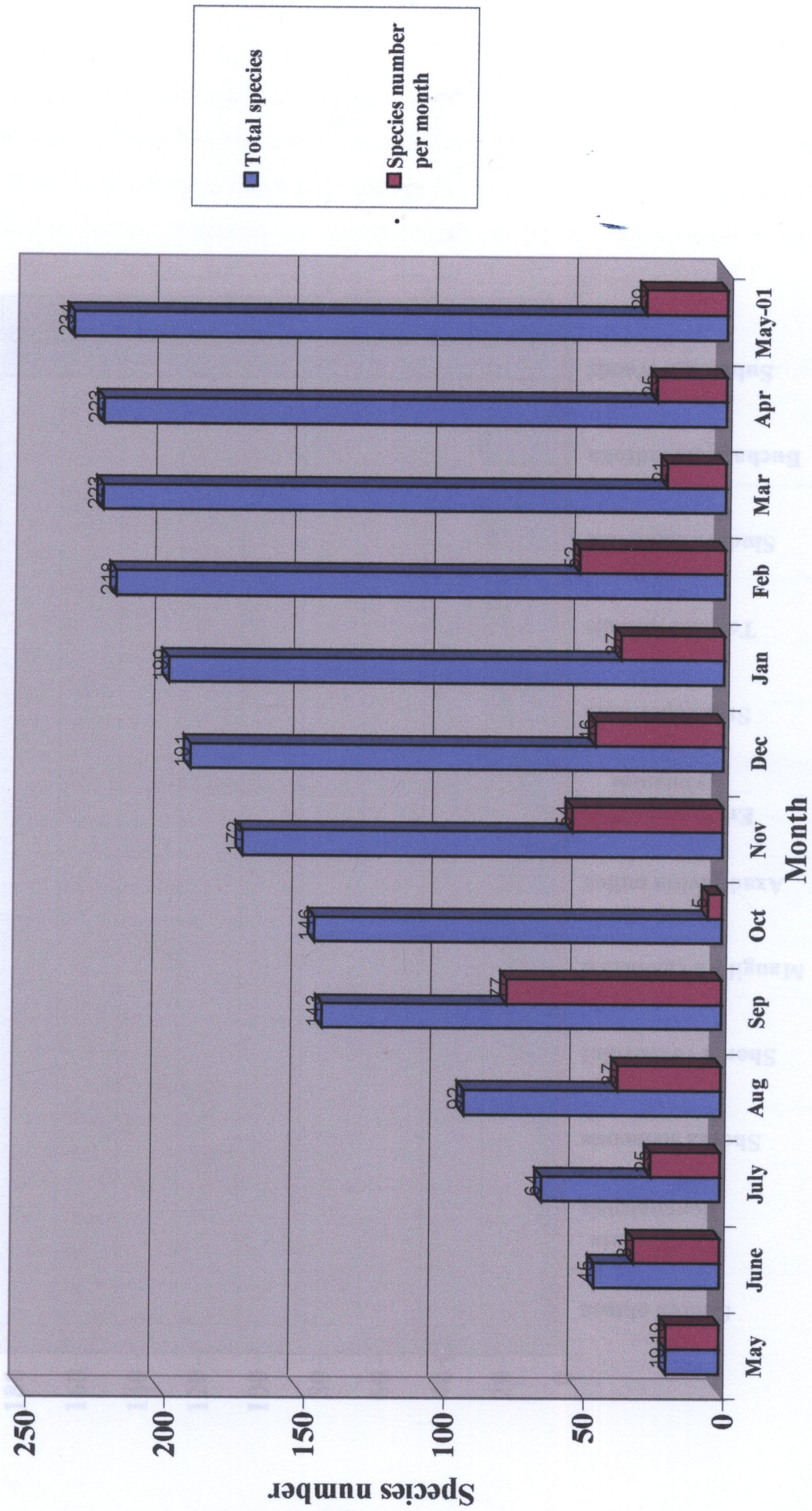
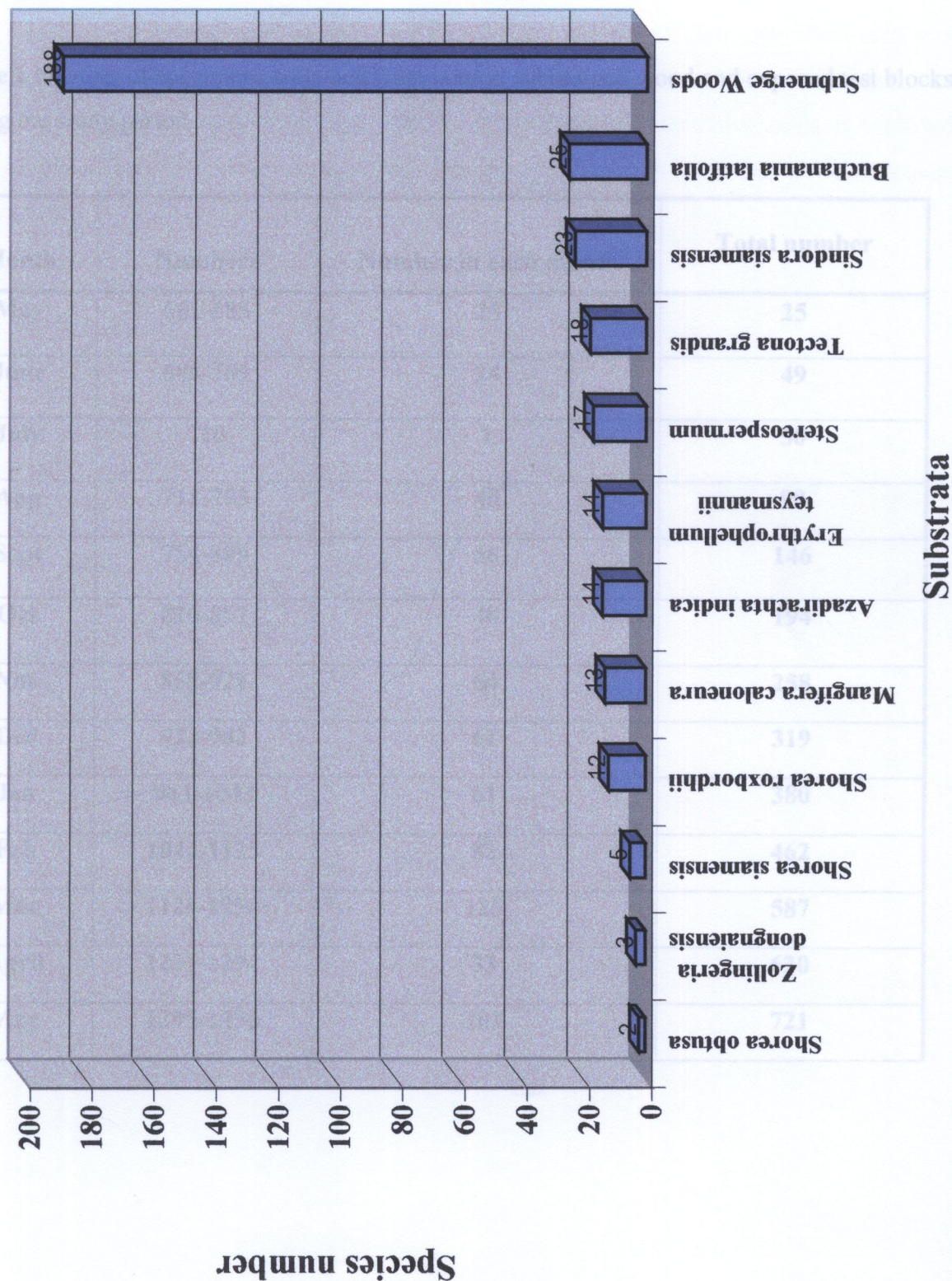


Figure3. List of species number on various substrata.



Seven hundred and twenty-one samples were collected from natural submerged timber and exposed wood at Khao Yai National Park and Hala Bala and are deposited as herbarium specimens (Table 1), permanent slides and cultures in the BIOTEC Herbarium and BIOTEC Culture Collection. Sample details include specimen number, fungus identification, substratum, habitat, collector’s name, date and sites as listed in Appendix 1.

Table 1 Number of specimens collected from natural submerged wood and exposed test blocks during the study period

Month	Numbers	Number in each month	Total number
May	661-685	25	25
June	686-709	24	49
July	710	1	50
Aug	711-753	40	90
Sept	754-809	56	146
Oct	810-857	48	194
Nov	858-921	64	258
Dec	922-982	61	319
Jan	983-1043	61	380
Feb	1044-1125	82	462
Mar	1126-1250	125	587
April	1251-1294	33	620
May	1295-1396	101	721

The freshwater fungi collected in this study are listed in Table 2. Some species were very common or could be found throughout the year, such as, *Helicomyces roseus* Link, *Savoryella aquatica* K. D. Hyde, *Trematosphaeria* sp.2, *Dictyochaeta* sp.1 and *Ellisemia opaca* (Cooke & Harkn.) Subram.. Other species are restricted by the season or are relatively rare, while some may be new to science or have never been reported before from a freshwater habitat.

In this final report the major taxa collected and some new fungi are illustrated with short descriptions, except when the species has recently been described. Where morphological measurements differ significantly from described accounts a comparative table is included. Rare or infrequent fungi are not included, mainly due to lack of material for adequate characterization.

Table 2 Freshwater fungi collected during this study

Freshwater fungi list	
Acrodictys globolosa	Canalisporium exiguem
Acrogenospora sphaerocephala	Canalisporium pallidum
Annulatascus sp.A	Canalisporium pulchrum
Annulatascus sp.B	Cancellidium applanatum
Annulatascus sp.C	Candelabrum brocciatum
Annulatascus sp.D	Candelabrum-like
Annulatascus velatisporus	Caryospora minima
Anthostomella aquatica	Chaetopsina fulva
Anthostomella sp.A	Chaetospermum camelliae
Anthostomella sp.B	Chaetospermum sp
Aquaphila abicans	Cirrenalia tropicalis
Aquaspheria dimorphospora	Cladosporium-like
Aquaticola sp.1	Codinae sp.
Aquaticola sp.A	Conidia in black pycnidia
Aquaticola sp.B	Conidia in pycnidia
Aquaticola sp.C	Conidia in pycnidia sp.1
Aquaticola sp.D	Conidia in yellow pycnidia
Bactrodesmium longisporum	Dactylaria sp.A
Basidiomycete sp.	Dactylaria sp.B
Basidiomycete sp.(Black cap,white stalk)	Dactylaria sp.C
Basidiomycete sp.(little mushroom)A	Dactylaria sp.D
Basidiomycete sp.D	Dactylaria sp.E
Berkleasmium sp1.	Dactylaria sp.-like
Berkleasmium sp1-like	Dactylaria sp1
Boerlagiomyces websteri	Delitschia sp.
Bombardia sp.	Dictyochaeta gyrosetula
Brachydesmiella caudata	Dictyochaeta –like
Brachysporiella gayana	Dictyochaeta sp.1
Camposporium sp	Dictyochaeta sp.2
Canalisporium caribense	Dictyochaeta sp.4
Canalisporium elegans	Dictyosporium digitatum

Dictyosporium giganticum	Helminthosporium acaciae
Dictyosporium heptasporum	Hymenoscyphus varicosporides
Dictyosporium nigroapice	Jahnula australiaensis
Dictyosporium sp.2	Jahnula cf granulosa
Dinemasporium cf strigosum	Kinocochaeta sp
Dinemasporium sp.1	Kirschsteiniothelia elaterascus
Dinemasporium sp.3	Lachnum cf.palmae
Discomycete sp.(yellow)E	Mamillisphaeria dimorphospora
Discomycete sp.A	Massarina bipolaris
Discomycete sp.B	Massarina ingoldiana
Discomycete sp.C	Massarina ingoldiana-like
Discomycete sp.D	Massarina sp.A
Discomycetes sp.F	Massarina sp3.
Elegantimyces sp.A	Massarina thalassioidea
Elegantimyces sp.B	Massarina thalassioidea-like
Ellisembia adscendens	Melanocephala australiensis
Ellisembia opaca	Melanocephala sp.
Ellisembia sp.A	Melanochaeta hemipsila
Ellisembia sp.B	Monodictys sp B
Ellisembia sp.C	Monodictys sp.1
Ellisembia sp1	Monodictys spA
Fusarium sp.	Monotosporella setosa var. macrospora.
Gangliostilbe cf.indica	Monotosporella sp.
Gonytrichum sp.	Mycocalia reticulata
Halosarpheia sp.	Nawawia filiformis
Helicomycetes roseus	Nectria sp. Like ss1357
Helicomycetes sp.?	Nectria sp.2
Helicoon sp.	Ophioceras dolichostomum
Helicosporium cf griseum	Ophioceras sp.?
Helicosporium cf vegetum	Penicillium-like
Helicosporium griseum	Pennicillium sp.?
Helicosporium sp.	Phaeoisaria clamatidis

Sigmoidea sp1.	Tricladium sp.
Sigmoidea sp2.	Unidentified Hyphomycete sp.A
Spadicoides sp1	Unidentified Hyphomycete spC
Phaeoisaria sp.?	Unidentified Coelomycete
Physalidium cf. Elegans	Unidentified Sporidesmium-like sp.A
Pseudohalonectria sp.	Unidentified Ascomycete
Pseudospiropes sp2	Unidentified Ascomycete biotunicate
Savoryella aquatica	Unidentified Ascomycete sp.A
Savoryella cf grandispora	Unidentified Ascomycete sp.B
Savoryella fusiformis	Unidentified Ascomycete sp.C
Savoryella verrucosa	Unidentified Ascomycete sp.D
Spirosphaerae sp1.	Unidentified Ascomycete sp.E
Sporidesmiella hyalosperma	Unidentified Ascomycete sp.G
Sporidesmiella –like	Unidentified Ascomycete sp.H
Sporidesmium- like	Unidentified Ascomycete sp.I
Sporidesmium sp.?	Unidentified Ascomycete sp.J
Sporidesmium sp1.	Unidentified Ascomycete Unitunicate
Sporoschisma mirabile	Unidentified Ascomycete?sp.L
Sporoschisma saccardoi	Unidentified Ascomycetes sp.M
Sporoschisma uniseptatum	Unidentified Basidio?
Stilbella holubovae	Unidentified Coelomycetes
Stilbella sp.	Unidentified Hyphomycete spAA
Synnema (Basidio?)	Unidentified Hyphomycete spAB
Taeniolella cf.stricta	Unidentified Hyphomycete spAC
Teleomorph of Phaeoisaria sp.	Unidentified Hyphomycete spAD
Thozetella nivea	Unidentified Hyphomycete spAE
Thozetella sp?	Unidentified Hyphomycete spAF
Trematospheria sp	Unidentified Hyphomycete spAG
Trematospheria sp.5	Unidentified Hyphomycete spAH
Trichocladium cf varicosporoides	Unidentified Hyphomycete spAI
Trichocladium linderii	Unidentified Hyphomycete spAJ
Trichoderma sp. 1	Unidentified Hyphomycete spAK

Unidentified Hyphomycete spAL	Unidentified Hyphomycete spO
Unidentified Hyphomycete spAM	Unidentified Hyphomycete spP
Unidentified Hyphomycete spB	Unidentified Hyphomycete spQ
Unidentified Hyphomycete spD	Unidentified Hyphomycete spR
Unidentified Hyphomycete spE	Unidentified Hyphomycete spS
Unidentified Hyphomycete spF	Unidentified Hyphomycete spT
Unidentified Hyphomycete spG	Unidentified Hyphomycete spU
Unidentified Hyphomycete spH	Unidentified Hyphomycete spV
Unidentified Hyphomycete Z1	Unidentified Hyphomycete spW
Unidentified Hyphomycete Z2	Unidentified Hyphomycete spX
Unidentified Hyphomycete Z3	Unidentified Hyphomycete spY
Unidentified Hyphomycete Z4	Unidentified Hyphomycete spZ
Unidentified Hyphomycete Z5	Unidentified Hyphomycete(immature)
Unidentified Hyphomycete spI	Unidentified sporidesmium-like
Unidentified Hyphomycete spJ	Verticillium sp.
Unidentified Hyphomycete spK	Wiesneriomyces javanicus
Unidentified Hyphomycete spL	Xylomyces chlamydosporis
Unidentified Hyphomycete spM	Xylomyces elegans
Unidentified Hyphomycete spN	

5.2 DESCRIPTION OF SELECTED FRESHWATER FUNGI

5.2.1 Ascomycota

5.2.1.1. *Anthostomella aquatica* K. D. Hyde & Goh.

Nova Hedwigia 67: 225-223, 1998.

Ascomata 500-680 μm high, 450-660 μm diam., immersed under irregularly conical, or hemispherical pseudostromata, solitary or in groups with mass of ascospores at the apex. Paraphyses up to 160 μm long, 5 μm wide at the base, hypha-like, septate, unbranched, embedded in a gelatinous matrix. Asci 8-spored, cylindrical, 125-140 x 8-10 μm , stipe tapering, apically rounded, staining blue in Melzer's reagent. Ascospores 15-20 x 5-7 μm , overlapping uniseriate, dark-brown, inequilaterally ellipsoidal, flattened on the ventral surface, germ-slit ventral, central, ca 4-5 μm long with in addition an inconspicuous hyaline germ pore or lighter-coloured region at one end (based on Hyde & Goh, 1998).

Known Distribution: Australia, Brunei, Hong Kong, South Africa and Thailand

Note: There are four xylariaceous species reported from aquatic habitats. Two *Anthostomella* species known from *Juncus* sp. (brackish areas) and often *Xylaria obovata* (Jones, pers. comm.). Moreover, *Hypoxylon oceanicum* Schatz., which was reported from a marine habitat (Jones & Alias, 1997) and more recently, from a freshwater habitat with *Anthostomella aquatica* and its anamorph *Geniculosporium sporodochiale* K. D. Hyde & Goh (Hyde & Goh, 1998). The specimens from this study agree with the description given by Hyde & Goh (1998) in having asci and ascospores within the range of the Type Species. This species has been so far collected only from freshwater habitats.

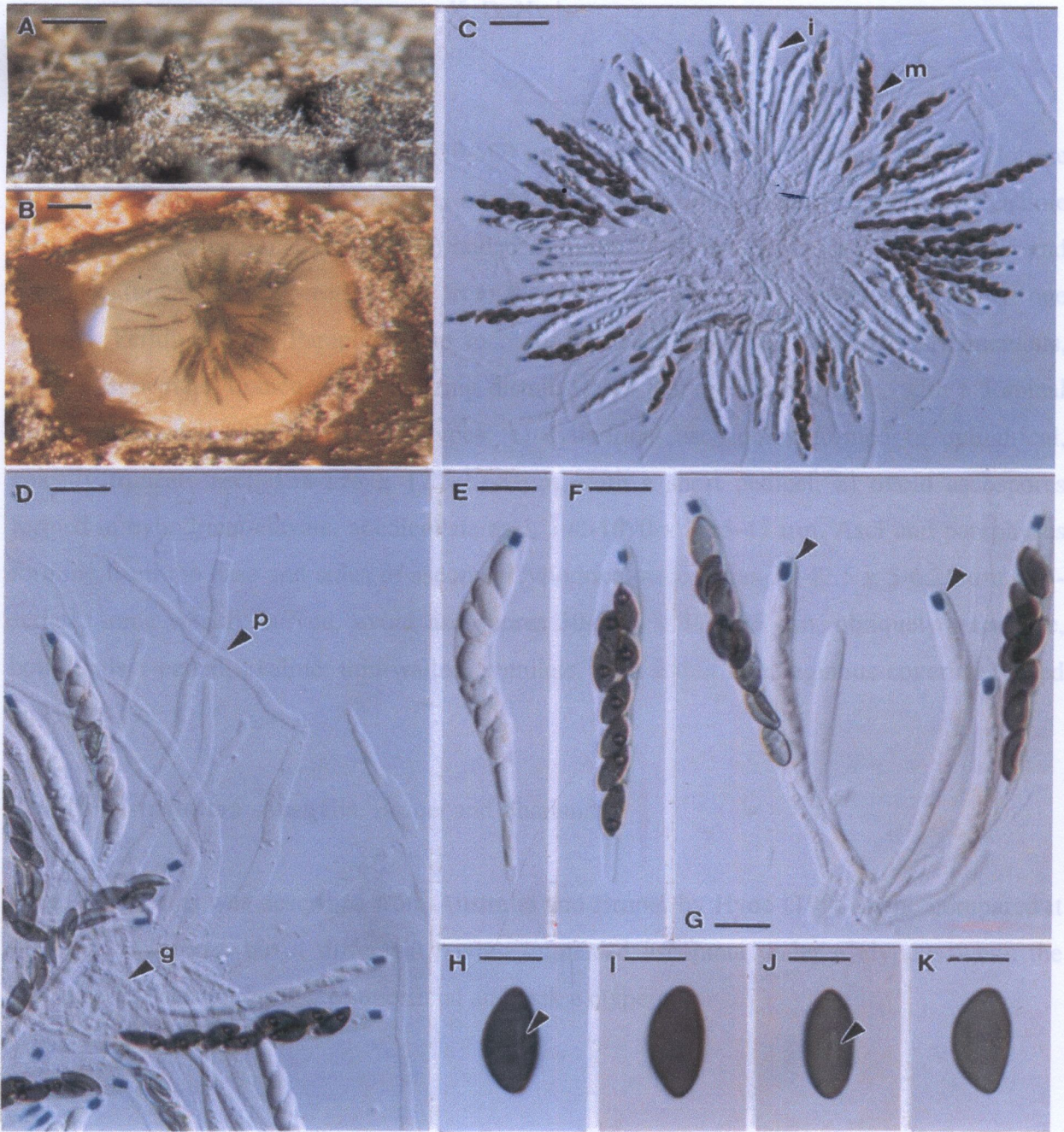


Figure 5 *Anthostomella aquatica* K. D. Hyde & Goh, **A:** Ascomata semi-immersed on test block surface (Bar = 1 mm), **B:** Transverse section of submerged ascoma with mass of asci (Bar = 500 μ m), **C:** Squash mount of asci and paraphyses. Note the asci are at different stages of development (arrowed i = immature; m = mature) (Bar = 50 μ m), **D:** Paraphyses (arrowed - p) cylindrical, septate and embedded in a gelatinous matrix (arrowed - g) (Bar = 20 μ m), **E:** Immature ascus with hyaline ascospores (Bar = 20 μ m), **F:** Mature ascus with pigmented ascospores (Bar = 20 μ m), **G:** Asci cylindrical with apical apparatus staining blue (amyloid) in Melzer's iodine reagent (arrowed) (Bar = 20 μ m), **H-K:** Ascospores brown with germ slit (arrowed) (Bar = 10 μ m).

5.2.1.2 *Aquasphaeria dimorphospora* K. D. Hyde.

Nova Hedwigia 61: 122-125, 1995.

Ascomata 300-400 μm high, 350-560 μm diam., immersed beneath a clypeus, globose or subglobose, thin-walled, ostiolate, occasionally solitary or usually gregarious. Ostiole central, umbilicate (immersed papilla) and periphysate. Clypeus comprised of host cells and darkened fungal tissue spreading out from the ostiole, occasionally covering more than one ascoma. Peridium thin. Paraphyses up to 5 μm wide at the base, hypha-like, filamentous, numerous, septate, branched and tapering distally. Asci 8-spored, unitunicate, with a J-apical ring and rounded, with two spore types: 1) cylindrical ascospores formed in cylindrical, apically truncate asci, 138-175 x 12.5-17.5 μm , with a short pedicel, 2) ovoid ascospores formed in cylindrical-clavate, apedicellate asci, 140-1890 x 32.5-45 μm . Asci and paraphyses forming from the base and sides of ascoma. Cylindrical ascospores 35-42.5 x 5-6.25 μm , 2-3-seriate, some weakly curved, ovoid ascospores 30-37.5 x 17.5-25 μm , obliquely uniseriate, both kinds 1-celled, hyaline, thin-walled, guttulate, with a thin mucilaginous covering (based on Hyde, 1995).

Known Distribution: Australia, Brunei and Thailand

Note: This genus was described from Australia and Brunei by Hyde (1995), who compared it with *Lasiosphaeria*, but it differs in having immersed ascomata under a clypeus while the ascomata in *Lasiosphaeria* are superficial and lack a clypeus.

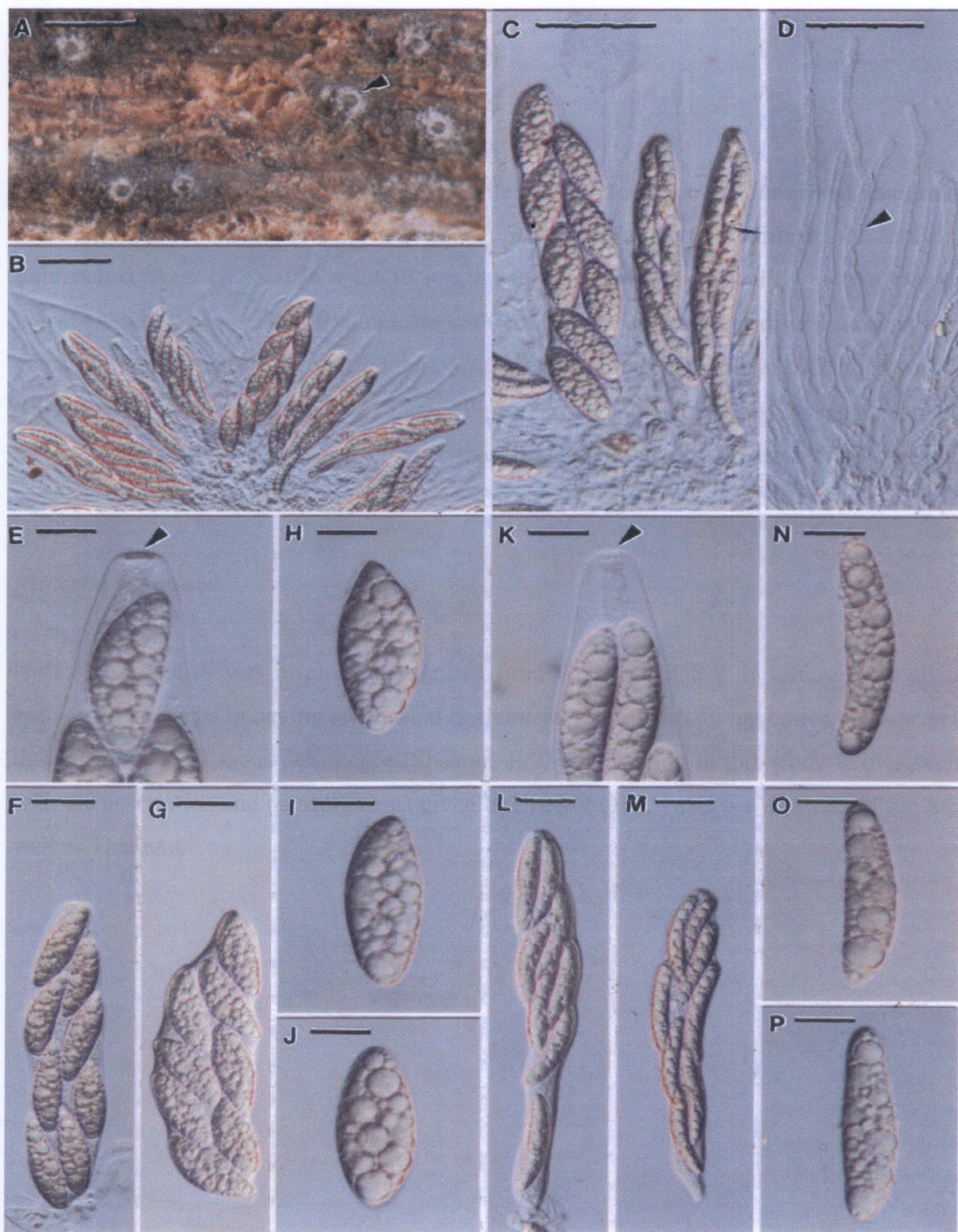


Figure 6 *Aquasphaeria dimorphospora* K. D. Hyde., **A:** Ascomata immersed in wood with a clypeus (arrowed)(Bar = 400 μ m), **B:** Asci and paraphyses (Bar = 50 μ m), **C:** Two types of asci found in this species (Bar = 50 μ m), **D:** Paraphyses (arrowed), hyaline septate and hypha-like (Bar = 50 μ m), **E, K:** Ascus with apical ring (arrowed) (Bar = 10 μ m), **F-G:** Type A asci (Bar = 25 μ m), **H-J:** Type A ascospores hyaline and unicellular (Bar = 10 μ m), **L-M:** Narrower and shorter Type B asci (Bar = 25 μ m) **N-P:** Type B ascospores hyaline elongate and unicellular (Bar = 10 μ m)

5.2.1.3 *Kirschsteiniothelia elaterascus* Shearer

Mycologia: **85**, 963-969, 1993. Fig. 3.8.

Ascomata 630-700 x 350-440 μm , solitary or scattered, deeply immersed, mammiform, globose to flattened-globose and black. Pseudoparaphyses numerous, filiform, non-septate, and unbranched. Asci 107.5 -175 x 20-30 μm , 8-spored, clavate, thick-walled, with a cylindrical apical chamber, pedicellate, fissitunicate with ectoascus separating from ectoascus at time of ectoascus dehiscence (165-265 μm long), base of endoascus long, narrow and coiled within the ectoascus. Ascospores 25-35 x 10-15 μm , ellipsoid, rounded at both ends, 1-septate, constricted at the septum, apical cell usually longer than basal cell, brown surrounded by a gelatinous sheath.

Material examined:

Note: This species was originally described from Chile and USA. It differs from all other species in the genus in having an unusual fissitunicate ascus with a long coiled endoascus base that uncoils during ascus dehiscence (Shearer, 1993). Collection in this study is in agreement with the description and measurements given by Shearer (1993) and is a new record for Asia as well as Thailand.



Figure 7 *Kirschsteiniothelia elaterascus* Shearer, A: Colony on test block with mass of ascospores oozing out from the ostioles (arrowed) (Bar = 200 μm), B: Section through immersed ascoma with ostiole (arrowed) emerging from the wood (Bar = 100 μm), C: Squash mount of asci with numerous filiform pseudoparaphyses (arrowed) (Bar = 50 μm), D-G: Bitunicate asci pedicellate and becoming longer or extended at maturity; endotunicate (arrowed - e) after rupturing (Bar = 30 μm), H-K: Ascospores brown and 1-septate (Bar = 10 μm)

5.2.1.4. *Ophioceras dolichostomum* (Berk. & Curt.) Sacc

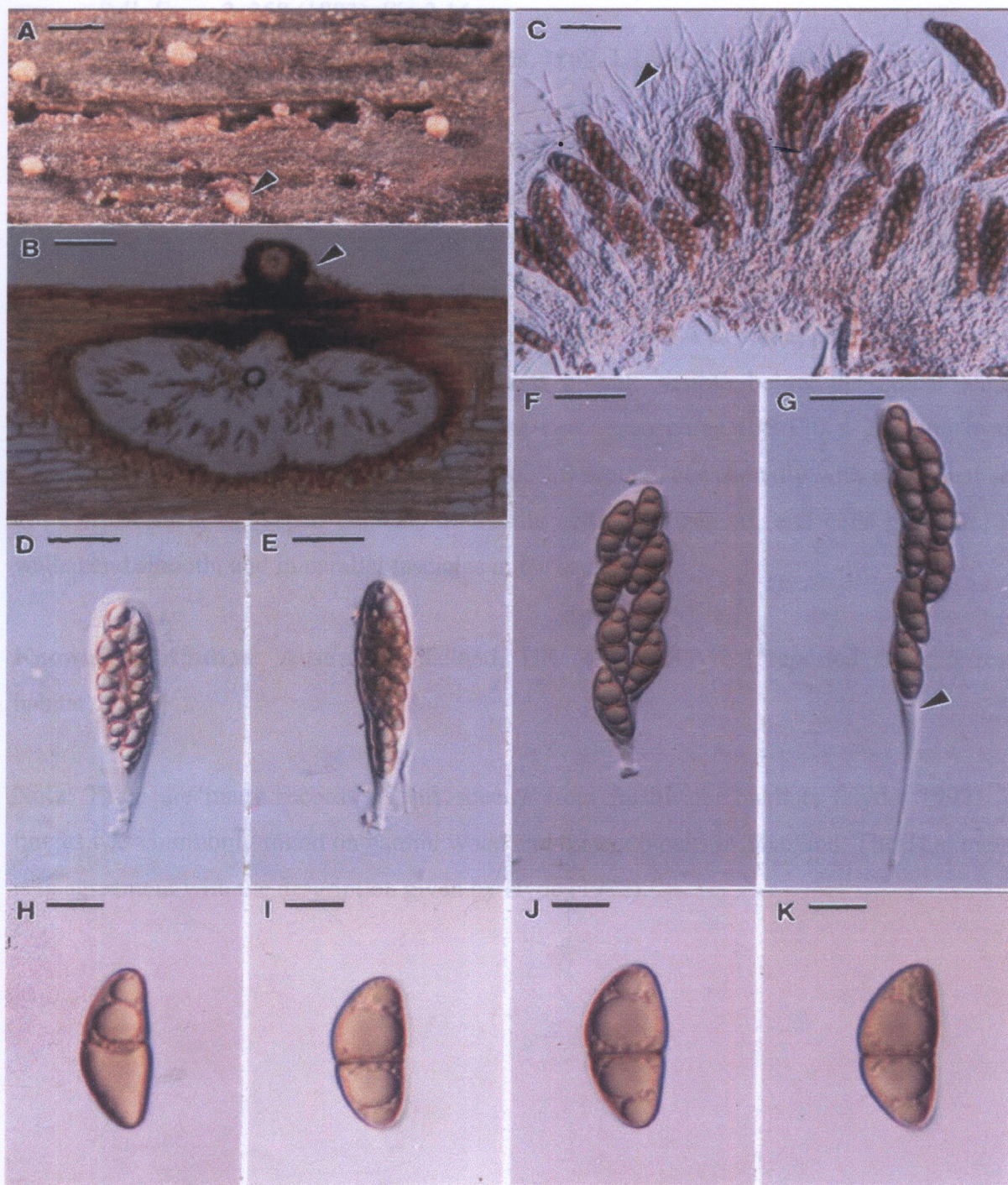


Figure 7 *Kirschsteiniothelia elaterascus* Shearer, **A:** Colony on test block with mass of ascospores oozing out from the ostioles (arrowed) (Bar = 200 μ m), **B:** Section through immersed ascoma with ostiole (arrowed) emerging from the wood (Bar = 100 μ m), **C:** Squash mount of asci with numerous filiform pseudoparaphyses (arrowed) (Bar = 50 μ m), **D-G:** Bitunicate asci pedicellate and becoming longer or extended at maturity; endotunicate (arrowed - e) after rupturing (Bar = 30 μ m), **H-K:** Ascospores brown and 1-septate (Bar = 10 μ m)

5.2.1.4. *Ophioceras dolichostomum* (Berk. & Curt.) Sacc.

Syll. Fung. **2**, 358 (1883). Fig 3.14.

- *Sphaeria dolichostoma* Berk. & Curtis, 1869. *J. Linn. Soc. London* **10**: 388.

Ascomata immersed in wood, up to 1000 μm diam., with beak 2-6 mm long. Peridium firm, blackened except at the apex of the beak, cell layers compressed in side view, surface composed of a large celled *textura angularis*; beak composed of a *textura intricata* with hyphae arranged obliquely and crossing one another in the upper regions. Asci 120-140 x 7.5-10 μm , unitunicate, cylindric, with a chitinous apical annulus refractive in water, readily detached from subhymenium, in some a small non-chitinous globule visible below the apical annulus. Paraphyses broad, septate, and tapering at the tips. Ascospores 105-130 x 2-3 μm , hyaline, singly, light yellowish-brown in mass, filiform, 2-8 septate, occasionally with additional septa, not constricted at the septa, contents of middle cells homogenous, end cells guttulate, thin-walled and smooth, and in parallel fascicles in the ascus.

Known Distribution: Australia, Thailand, UK. and U.S.A*. (*reported from terrestrial habitat).

Note: There are many records of this species from freshwater habitats (Hyde, 1992). This fungus was commonly found on natural wood and on test blocks in Thailand. The Thai material is in agreement with the description given by Hyde (1992).

Figure 3 *Ophioceras dolichostomum* (Berk. & Curt.) Sacc., A: Ascomata immersed in wood with long necks protruding (Bar = 1 mm), B: Squash mount of asci and paraphyses (Bar = 10 μm), C: Paraphyses (arrowed), hyaline, broad and septate (Bar = 20 μm), D-E: Asci cylindrical with an apical opening (arrowed) (Bar = 10 μm), F-H: Ascospores, hyaline, septate and thin-walled (Bar = 10 μm)

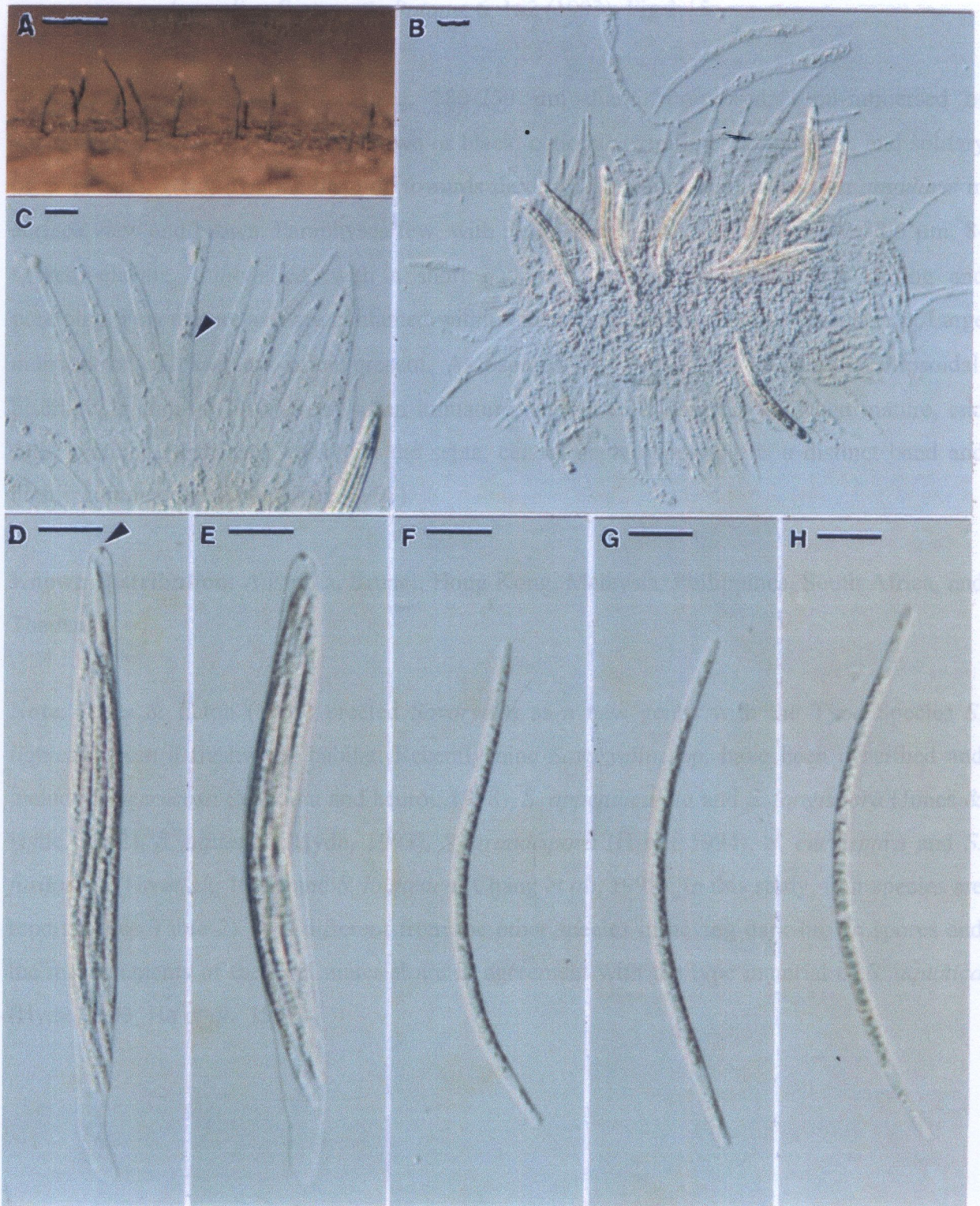


Figure 8 *Ophioceras dolichostomum* (Berk. & Curt.) Sacc., **A:** Ascomata immersed in wood with long necks protruding (Bar = 1 mm), **B:** Squash mount of asci and paraphyses (Bar = 10 μ m), **C:** Paraphyses (arrowed), hyaline, broad and septate (Bar = 20 μ m), **D-E:** Asci cylindrical with an apical opening (arrowed) (Bar = 10 μ m), **F-H:** Ascospores, hyaline, septate and thin-walled (Bar = 10 μ m)

5.2.1.5 *Savoryella aquatica* K. D. Hyde.

Australian Systematic Botany: 6, 162 (1993). Fig 3.15.

Ascomata 400–580 μm long, 180–250 μm diam., immersed, semi-immersed or superficial, coriaceous, pyriform, brown or black, ostiolate, papillate, periphysate, and solitary or gregarious. Neck hyaline, bending towards the light. Peridium thin, of *textura angularis* in surface view and brown. Paraphyses few, with rounded cells. Asci 125–140 $\times$ 30–32.5 μm , 8-spored, clavate, thin-walled, with a short peduncle, apically thickened with a ring and pore/plug. Few mature asci are contained within the ascoma as they mature successively. Large numbers of old asci are often present. Ascospores 27.5 – 32.5 $\times$ 15–20 μm , ellipsoidal, biseriate, hyaline to olive-green when immature, central cells dark brown when mature, end cells hyaline, constricted weakly at the septa, central septa appearing as a distinct band and highly guttulate (based on Hyde, 1993).

Known Distribution: Australia, Brunei, Hong Kong, Malaysia, Philippines, South Africa, and Thailand.

Note: Jones & Eaton (1969) erected *Savoryella* as a new genus with the Type Species *S. lignicola* from a freshwater habitat. Recently nine *Savoryella* spp. have been described and include *S. verrucosa* (Minoura and Muroi, 1978), *S. appendiculata* and *S. longispora* (Jones & Hyde, 1992), *S. aquatica* (Hyde, 1993), *S. grandispora* (Hyde, 1994), *S. curvispora* and *S. fusiformis* (Ho *et al.*, 1997) and *S. limnetica* (Chang *et al.*, 1998). In this study, four species are reported (see Table 2). It is different from the other species in having dark brown spores and the measurements of the Thai material are in agreement with the type material of *S. aquatica* (Hyde, 1993; Ho *et al.*, 1997).

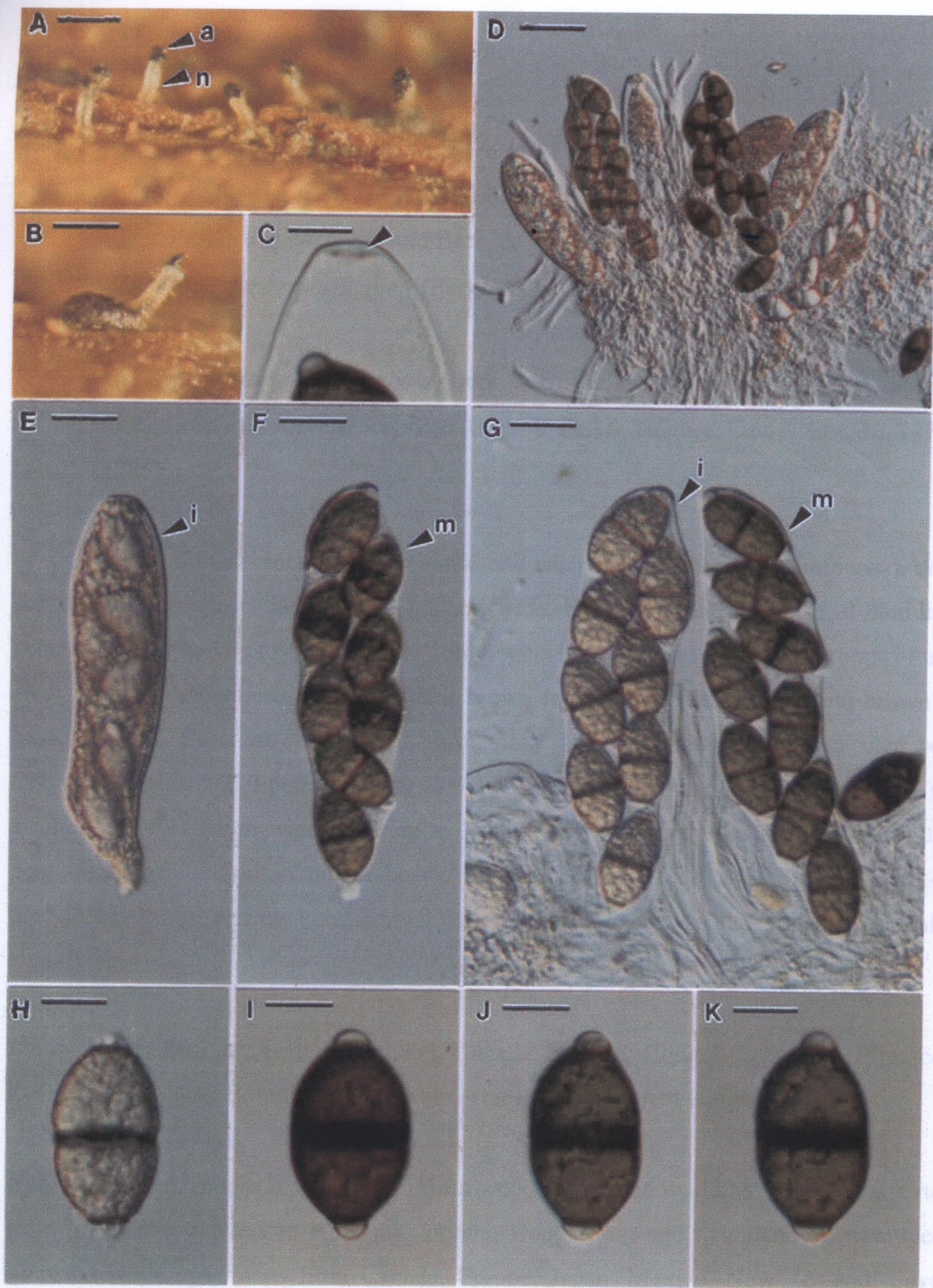


Figure 9 *Savoryella aquatica* K. D. Hyde., **A:** Ascomata with hyaline necks (arrowed - n) emerging from the wood and discharged ascospores at their tips (arrowed - a) (Bar = 250 μ m), **B:** Ascoma superficial on test block (Bar = 250 μ m), **C:** Apical ring (arrowed) (Bar = 10 μ m), **D:** Squash mount of asci at various stages of development (Bar = 40 μ m), **E-G:** Asci at various stages of development (immature arrowed - i; mature arrowed - m) (Bar = 20 μ m), **H-K:** Ascospores dark brown with hyaline end cells (Bar = 10 μ m)

5.2.2 Mitosporic fungi

5.2.2.1 *Acrogenospora sphaerocephala* (Berk. et Br.) M. B. Ellis.

Dematiaceous Hyphomycetes. C.M.I Kew, England. P. 114 (1971). Fig. 3.18.

≡ *Monotospora sphaerocephala* Berk. & Br., Ann. Mag. Nat. Hist., III, 3, 361 (1985).

≡ *Halysium sphaerocephalum* (Berk. & Br.) Vuill., Bull. Soc. Sci. Nancy, III, 11, 167 (1911).

≡ *Monosporella sphaerocephala* (Berk. & Br.) S. Hughes, Can. J. Bot. 36, 787 (1985).

≡ *Monotosporella sphaerocephala* (Berk. & Br.) S. Hughes, Can. J. Bot. 36, 787 (1985).

Colony on test block brown to black, and hairy. Mycelium mostly immersed, branched, septate, pale brown to dark brown, 2-5 µm wide, hyphae around the base of conidiophores generally wider and up to 10 µm wide. Conidiophores produced singly or in groups of up to 10, erect, straight or flexuous, brown to dark brown for much of their length and brown to pale brown above, they are translucent throughout and the transverse septa can be seen. Conidiophores are 270-600 µm long, 7.5-10 µm wide just above the base which may be swollen up to 12.5 µm wide, tapering to 3.6-5.4 µm wide at the apex and bearing up to 15 percurrent proliferations. Conidia brown to dark brown, 25-35 x 20-30 µm, thick-walled, unicellular, almost entirely subspherical with a scar on a short denticle, and occasionally very slightly obovoid.

Known Distribution: Australia, Brunei, Canada, Europe, Hong Kong, Japan, Mexico, New Zealand, Seychelles, South Africa, Taiwan, Thailand and United Kingdom.

Note: *A. sphaerocephala* is well known from wood around the world but has been reported only from freshwater habitats in Australia, Brunei, Hong Kong and Thailand. A new record for Thailand while specimens from Canada, Europe, Japan, Mexico, New Zealand, Seychelles, South Africa, Taiwan and United Kingdom reported from terrestrial habitats.

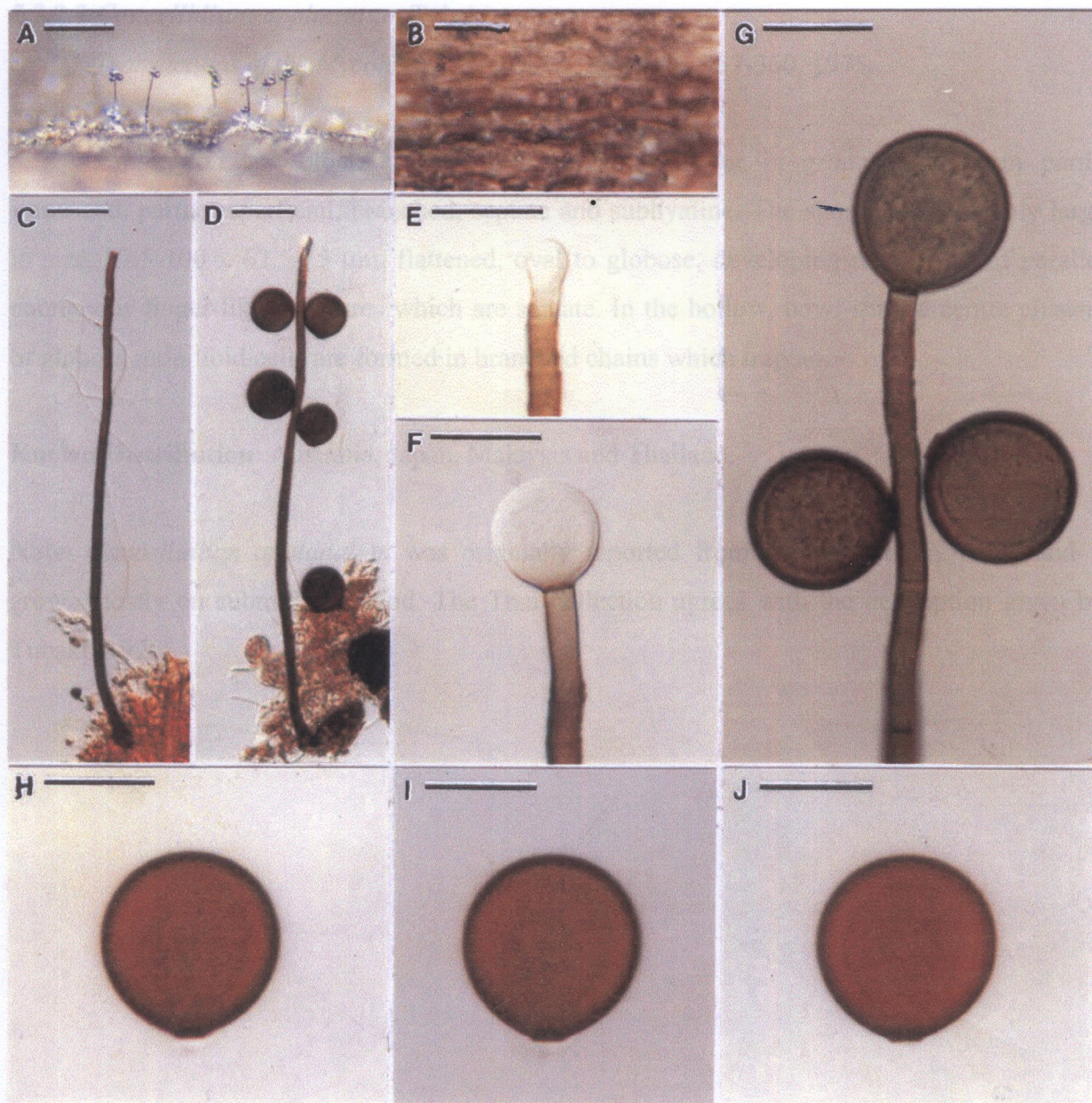


Figure 10 *Acrogenospora sphærocephala* (Berk. & Br.) M.B. Ellis, **A-B**: Conidiophores and conidia on the surface of the wood (Bar = 400 μ m), **C**: Conidiophore, long, dark brown, septate (Bar = 20 μ m), **D**: Conidiophore bearing dark brown conidia (Bar = 20 μ m), **E-G**: Conidiophores with developing conidia (Bar = 10 μ m), **H-J**: Conidia, dark brown, thick-walled and unicellular (Bar = 10 μ m)

5.2.2.2 *Cancellidium applanatum* Tubaki

Transactions of the Mycological Society of Japan: **16**, 357-360, 1975.

Colony on test block effuse, grey, shiny, single or in groups. Mycelium partly immersed, partly superficial, branched, septate and subhyaline. The spores are relatively large in size, 87.5-100 x 62.5-75 μm , flattened, oval to globose, developing as a series of parallel contiguous finger-like structures which are septate. In the hollow, bowl-shaped centre clusters of globose monilioid cells are formed in branched chains which trap air.

Known Distribution: Australia, Japan, Malaysia and Thailand.

Note: *Cancellidium applanatum* was originally reported from Japan (Tubaki, 1975) and it grows mostly on submerged wood. The Thai collection agrees with the description given by Tubaki (1975).

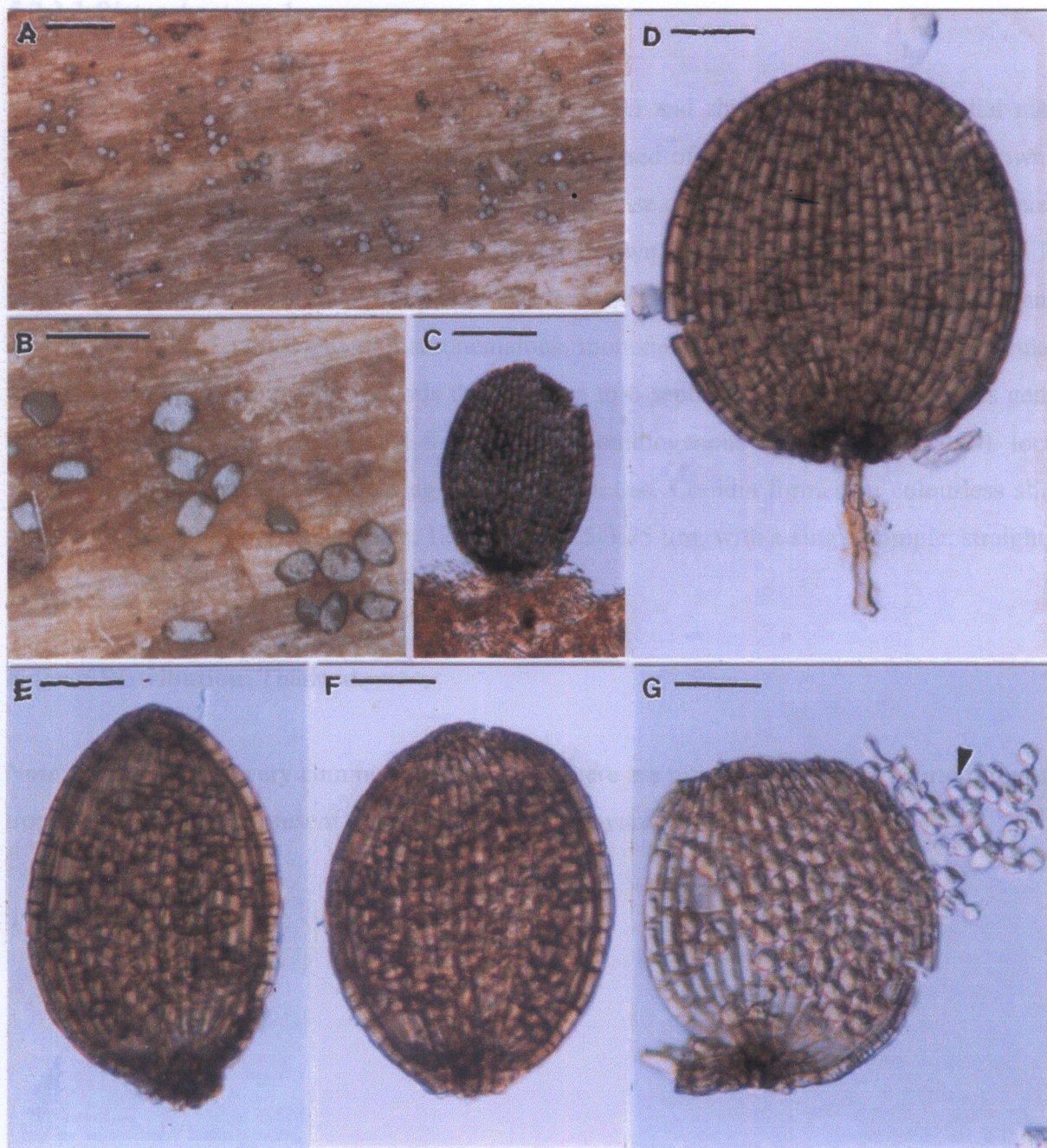


Figure 11 *Cancellidium applanatum* Tubaki, **A-B**: Propagules on test block (Bar A = 600 μm ; Bar B = 200 μm), **C**: Propagule on woody substratum (Bar = 40 μm) **D-G**: Propagules with parallel contiguous finger-like, septate, column of cells with monilioid cells (arrowed) forming branched chains in the hollow of the propagule (Bar = 20 μm)

5.2.2.3 *Dictyochaeta* sp.1

Colony on test block effuse, superficial, brown and shiny white with conidial mass. Mycelium mostly immersed in the substratum, composed of branched, septate, pale brown to brown hyphae aggregated to form small knots at the base of conidiophores. Setae sterile erect, straight, sometimes slightly flexuous, thick-walled, brown, smooth, paler at the apex, up to 125 μm long, 7.5-10 μm wide, above the base and terminating in a single phialide with a funnel-shaped collarete. Conidiophores macronematous, mononematous, simple, up to 6-fasciculate, brown towards the base, paler towards the apex, up to 6-septate, cylindrical, sometimes gently curved, up to 65 μm long, and 6-8 μm wide. Conidiogenous cells with mostly 1 locus, sometimes with 2, integrated, bearing up to 2 collarettes. Conidia formed in colourless slimy masses, hyaline, falcate, non-septate, 12.5-17.5 x 2.5-3.75 μm , with a single, simple, straight or slightly curved setula up to 9 μm long at each end.

Known Distribution: Thailand.

Note: This species is very common in this study. There are many new species reported from the tropics with which the present collection must be compared.

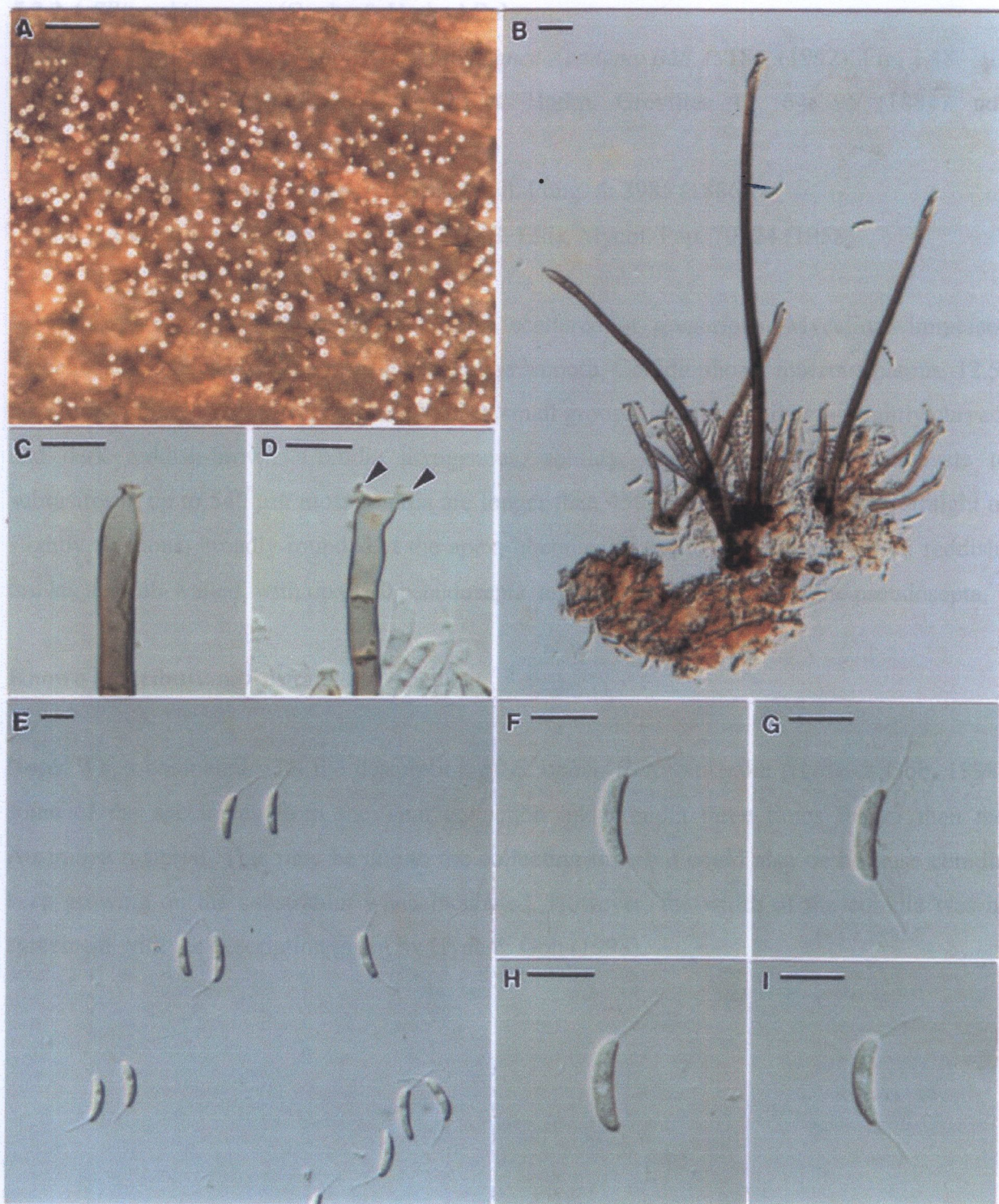


Figure 12 *Dictyochaeta* sp.1, **A:** Colony on test block with masses of slimy white conidia at the apex of the conidiophores (Bar = 100 μ m), **B:** Conidiophores in groups (Bar = 20 μ m), **C-D:** Conidiogenous cells with 1 locus, rarely 2 loci (arrowed) (Bar = 10 μ m), **E:** Conidial mass (Bar = 10 μ m), **F-I:** Conidia falcate, hyaline with a setula at each ends (Bar = 10 μ m)

5.2.2.4 *Ellisembia opaca* (Cooke & Harkn.) Subram.

Proceedings of the Indian National Science Academy B 58 4: 184, (1992). Fig. 3.48.

= *Bactrodesmium opacum* Cooke & Harkn, *Grevillea* 12, 64: 95 (1884); non
Sporidesmium opacum Corda

= *Clasterosporium harknessii* Sacc., *Syll. Fung.* 4: 3985 (1886).

= *Sporidesmium harknessii* (Sacc.) M.B. Ellis, *Mycol. Pap.* 70: 24 (1958)

Colony on test block effuse, brown, scattered or gregarious. Mycelium immersed branched, septate, subhyaline to pale brown and smooth. Conidiophores macronematous, 12.5-20 x 5-7.5 μm , 0-1 septate, arising singly or in small groups, simple, straight or slightly curved, and dark reddish-brown. Conidia acrogenous, solitary, dry, cylindrical or obclavate to subfusiform, up to 540 μm most conidia are longer than 450 μm , 12.5-15 μm wide, straight or slightly flexuous, broadly rounded at the apex, obconically truncate at the base, dark reddish-brown, smooth-walled, with up to 60 pseudosepta, and slightly constricted at the pseudosepta.

Known Distribution: Australia and Thailand.

Note: When compared with the description of *E. opaca* from Australia (Hyde & Goh, 1998) some of the specimens from the Thai collection had conidia three times longer than the Australian material. This may be due to the collecting time but could also be because conidia keep growing on the substratum when incubated. However, the width of the conidia was in agreement with the description given by Hyde & Goh (1998).

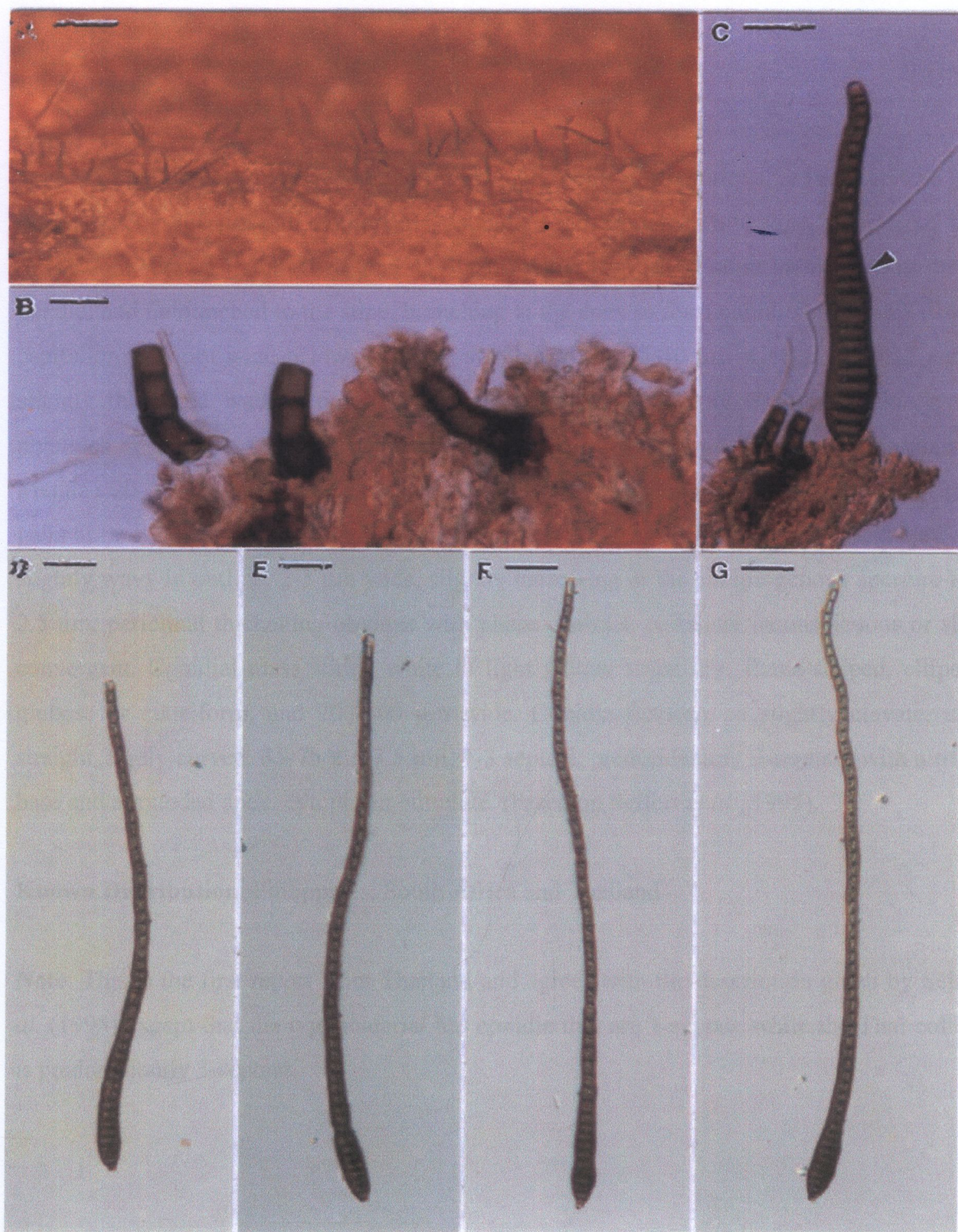


Figure 13 *Ellisembia opaca* (Cooke & Harkn.) Subram., **A:** Colony superficial on the test block (Bar = 500 μm), **B:** Conidiophores, short, dark brown and septate (Bar = 10 μm), **C:** Conidiophores with a conidium (arrowed) (Bar = 20 μm), **D-G:** Conidia, dark brown with numerous pseudosepta (Bar = 30 μm)

5.2.2.5 *Stilbella holubovae* Seifert, S.J. Stanley & K.D. Hyde.

Sydowia: **47**, 258-262. 1995. Fig. 3.62.

Colony on test block white with synnemata, solitary, gregarious, or in caespitose groups of 2 or 3, 400-800 μm tall, cylindrical or subulate and capitate, white ~~stipe~~, smooth, of slender to medium stature, unbranched, and 15-30 μm wide. Hyphae of stipe interwoven at the base, parallel and unbranched to the stipe, branching at the apex to form conidiophores in a divergent capitulum: 3-5 μm wide below the apex, swollen hyphae 5-10 μm wide at the base and with slightly thickened walls. Conidiophore branching generally 2 or 3 monochasial levels of phialides or metulae, sometimes with a whorl of 3 or 4 occurring, branches often appressed. Metulae 20-30 x 3-4 μm , cylindrical and hyaline. Conidiogenous cells phialidic, in terminal pairs or rarely whorls of 3, sometimes single and lateral, 40-60 μm long, cylindrical, sometimes slightly wavy in outline, 2-3 μm wide, slightly narrowing at the conidiogenous aperture to 1.5-2.5 μm , periclinal thickening obvious with phase contrast, collarette inconspicuous or slightly convergent. Conidial mass slimy, white to light yellow when dry, flame-shaped, ellipsoidal, globose or cuneiform, and 200-300 μm wide. Conidia fusiform to slightly clavate, usually straight, rarely curved, 35-75 x 5-7.5 μm , 1-3 septate, predominantly 3-septate, with a truncate base and a rounded apex, cytoplasm guttulate. (based on Seifert *et al.*, 1995).

Known Distribution: Philippines, South Africa and Thailand

Note: This is the first report from Thailand and agrees with the description given by Seifert *et al.* (1995) except that the type material has conidia that are 1-septate while the Thai collection is predominantly 3-septate.

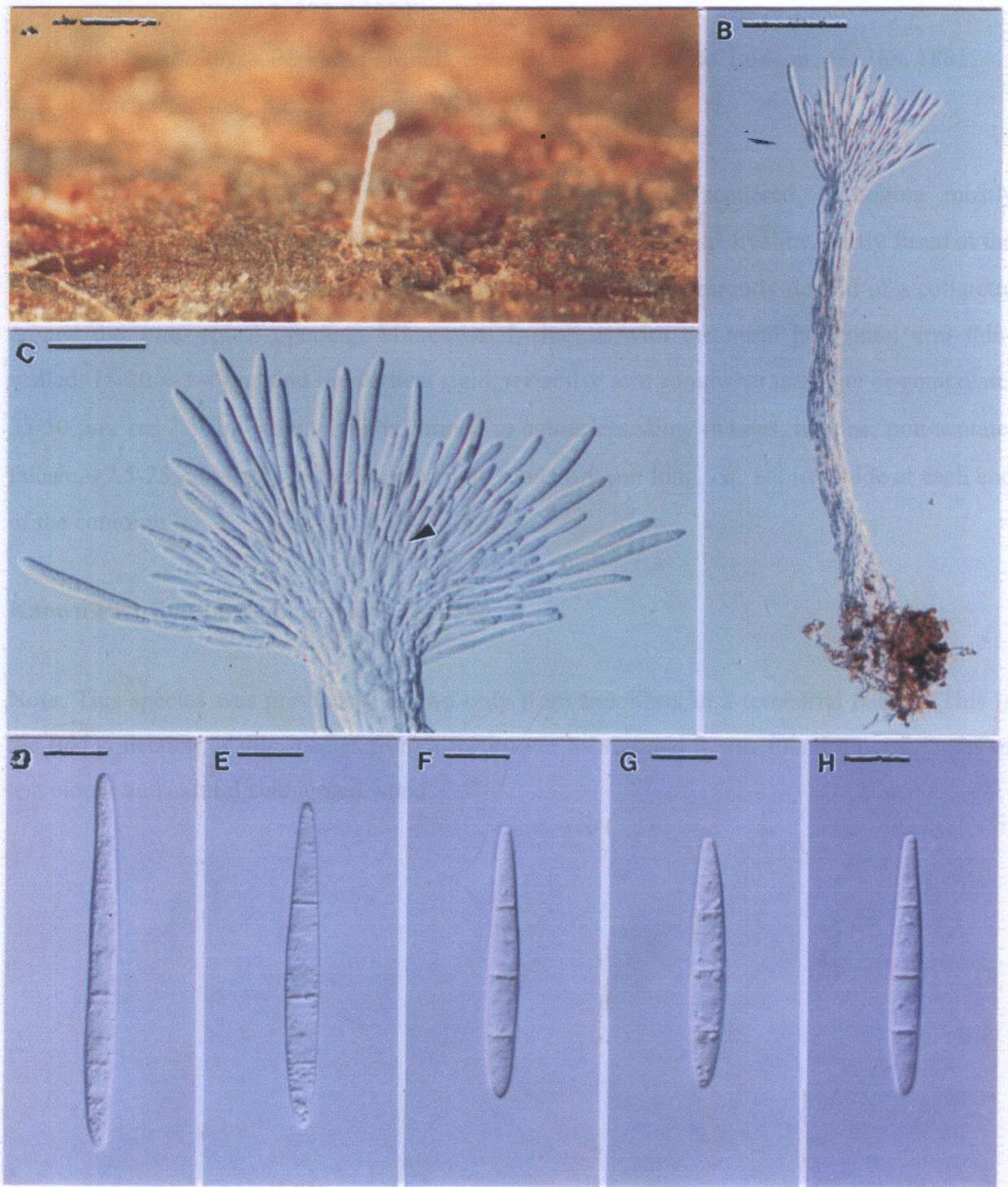


Figure 14 *Stilbella holubovae* Seifert, S.J. Stanley & K.D. Hyde, **A:** Conidiophore and terminal conidial mass superficial on test block (Bar = 500 µm), **B:** Conidiophore hyaline and comprising a weft of fused hyphae, septate with a penicillate head (Bar = 100 µm), **C:** Conidiophore with metulae (arrowed) and conidia at various stages of development (Bar = 50 µm), **D-H:** Conidia hyaline, elongate and 2-3-septate (Bar = 10 µm)

5.2.2.6 *Thozetella nivea* (Berk. & F. Muell.) O. Kuntze.

Rev. Gen. Plant: **2**, 873, 1891 Fig. 3.63.

≡ *Thozetia nivea* Berk. & F. Muell. apud Berk., J. Linn. Soc. London, 18: 388, 1881;
emend. Höhnelt, Sitzb. K. Akad. Wiss., Wien, 18 : 423, 1909.

Colony on test block, white with conidial masses, scattered, mycelium mostly immersed. Conidiophores up to 80 µm long and about 2.5 µm wide, hyaline, partly fused at the base, with terminal phialides. Phialides about 30 × 2-2.5 µm, apparently devoid of a collarette around the wide apical opening. Microawns L-shaped, with the basal horizontal arm thin-walled, 15-20 × 3-4 µm, and the vertical rigid, refractive arm somewhat undulate or geniculate, 35-50 µm, *ca.* 2.5 µm wide. Conidia formed in colourless slimy masses, hyaline, non-septate, falcate, 17.5-25 × 3-4 µm, with single, simple setula 6-9 µm long, *ca.* 1-2 µm wide at each end of the conidium.

Known Distribution: Indonesia and Thailand.

Note: This species was previously known only from Indonesia in a terrestrial habitat. This is the first collection of this species from a freshwater habitat and it was found on both types of test blocks and natural submerged wood.

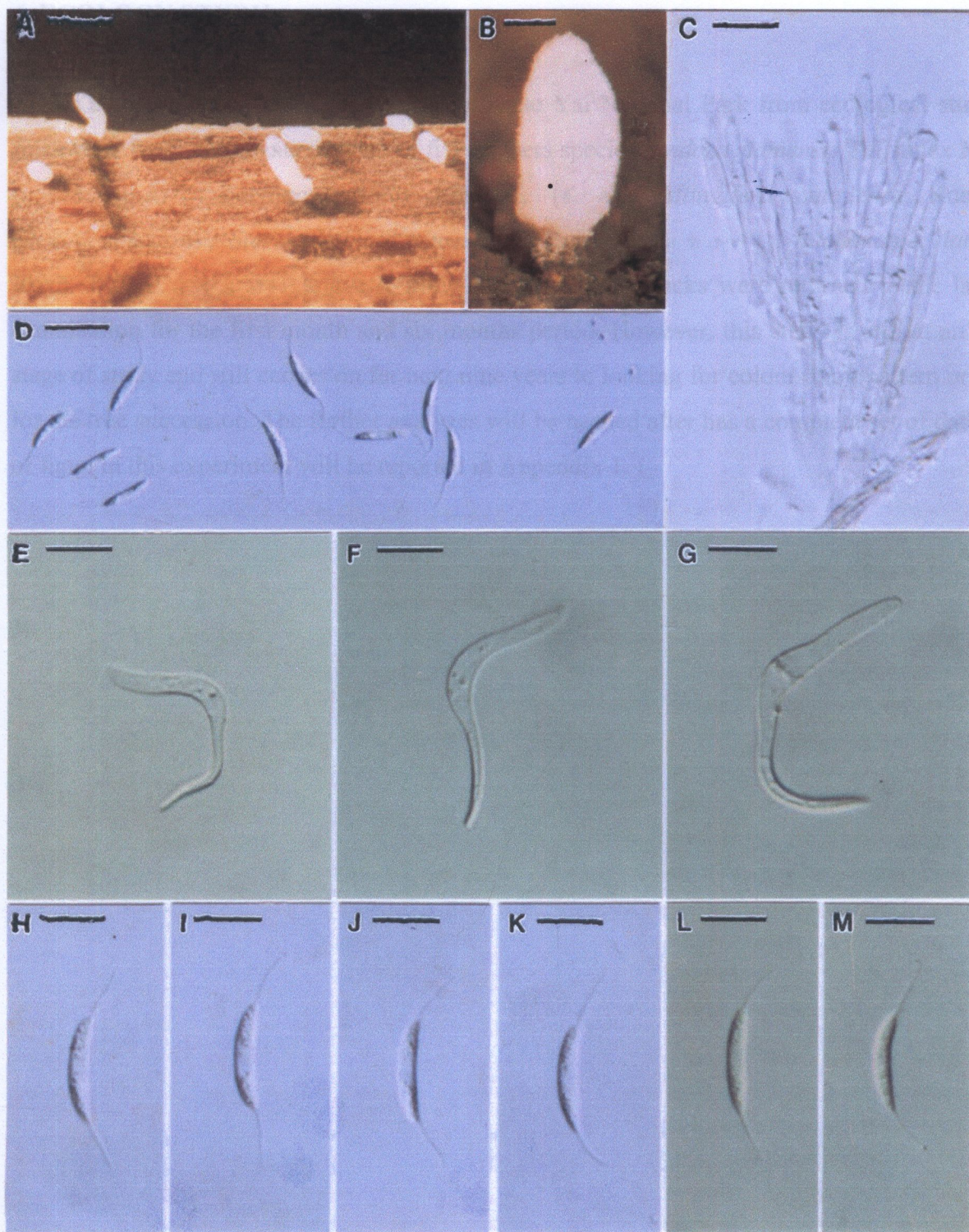


Figure 15 *Thozetella nivea* (Berk. & F. Muell.) O. Kuntze, **A:** Colony on test block (Bar = 500 μ m), **B:** Mass of white conidia on substratum (Bar = 100 μ m), **C:** Squash mount of conidiophores (Bar = 10 μ m), **D:** Conidial mass (Bar = 20 μ m), **E-G** Microawns usually found on the top of conidial mass (Bar = 10 μ m), **H-M:** Conidia falcate, with a setula at each end of the conidium (Bar = 10 μ m)

6. ECOLOGY STUDY

In this study, 75 fungi were recorded from Khao Yai National Park from ecological study of freshwater fungi colonization wood of five timbers species(*Sindora siamensis* Teijsm.ex Miq.T (ม.ช.ค.ว.แ.ต.), *Tectona grandis* Linn.f.T. (สัก), *Mangifera caloneura* Kurz T. (ม.ช.ม.ว.งป.ว.), *Stereospermum neuranthum* Kurz T (แ.ค.ท.ร.ว.), *Buchanania latifolia* Roxb. T (ม.ช.ม.ว.ง.ห.ว.แ.ม.ง.ร.น)). Two set of test blocks were returned to the lab for examination for the first month and six months period. However, this study is still at an early stage of study and still carries on for next nine years to looking for colonisation pattern or even for the true succession. The further analyzes will be needed after has a complete set of data. All of fungi in this experiment will be reported in Appendix 1.

7. ANAMORPH/TELEOMORPH RELATIONSHIPS OF ISOLATED FUNGI

318 strains of freshwater fungi were isolated to supply for screening programme and deposit in the BIOTEC cultures collection (Table 3 and Appendix 2.). Although, the number is lower than the target number (400 strains), however, it due to the fact that this study was focused on diversity of freshwater fungi rather than getting replication of the same species into culture. As some species were very common as: *Helicomyces roseus*, *Sporoschisma uniseptatum*, *S. saccardoi*, *Annulatascus velatisporus* and *Acrogenospora sphaerocephala*. All of these fungi have been isolated into axenic cultures with more than 10 strains each. So only some fungi were isolated to build up in term of diversity of freshwater fungi.

Table 3 Number of freshwater fungi isolated during the reporting period and deposit in the BIOTEC Culture Collection

Month	Numbers	Number in each month	Total number
May	661-685	12	12
June	686-709	14	26
July	710	0	26
Aug	711-753	32	58
Sept	754-809	38	96
Oct	810-857	28	124
Nov	858-921	28	152
Dec	922-982	13	165
Jan	983-1043	37	202
Feb	1044-1125	33	235
Mar	1126-1250	50	285
April	1251-1294	18	303
May	1295-1396	15	318

In this study, 3 anamorph teleomorph connections were found, however, only one more anamorph teleomorph connection of *Nectria* sp. and *Chaetopsina* sp. was added to the list. The total number of anmorph/teleomorph connections is 22 from freshwater habitats in Thailand (Table4).

Table 4 List of teleomorph/anamorph connections from freshwater habitats

No.	Connections	
	Teleomorph	Anamorph
1	<i>Anthostomella taiwanensis</i>	<i>Geniculosporium</i> -like
2	<i>Ascotaiwania sawada</i>	<i>Monotosporella</i> sp.
3	<i>Delitschia</i> sp.1	<i>Phomopsis</i> sp.1-like
4	<i>Diaporthe</i> sp.1	<i>Phomopsis</i> sp.2-like
5	<i>Hymenoscyphus varicosporoides</i>	' <i>Tricladium varicosporoides</i> '
6	<i>Hysterographium</i> sp.1	<i>Phomopsis</i> sp.3-like
7	<i>Melanochaeta garethjonesii</i>	<i>Sporoschisma uniseptatum</i>
8	<i>Melanochaeta hemipsila</i>	<i>Sporoschisma saccardoi</i>
9	<i>Microascus</i> sp.1-like	Unidentified Hyphomycete
10	<i>Nectria chaetopsinae</i>	<i>Chaetopsina fulva</i>
11	<i>Nectria chaetopsinae-polyblastiae</i>	<i>Chaetopsina polyblastiae</i>
12	<i>Nectria</i> sp.1	<i>Cylindrocarpon</i> sp.1
13	<i>Nectria</i> sp.2	<i>Chaetopsina</i> sp.2
14	<i>Nectria</i> sp.3	<i>Chaetopsina</i> sp.3
15	<i>Oxydothis</i> sp.1-like	<i>Phialophola</i> cf. <i>cyclamen</i>
16	<i>Tubeufia cylindrothecia</i>	<i>Helicomyces roseus</i>
17	<i>Tubeufia</i> sp.1	<i>Aquaphila albicans</i>
18	Teleomorph of <i>Dactylaria</i> sp.2	<i>Dactylaria</i> sp.2
19	Teleomorph of <i>Ellisembia brachypus</i>	<i>Ellisembia brachypus</i>
20	Teleomorph of <i>Phaeoisaria clematidis</i>	<i>Phaeoisaria clematidis</i>
21	Unidentified Discomycete sp.7	Unidentified Hyphomycete
22	Unidentified Discomycete sp.9	Sporodochial sp.1

DISCUSSION AND CONCLUSION

Over a thousand freshwater fungi have been documented from freshwater habitats in the world since the first freshwater fungus was reported in 1893 (De Wildeman, 1893). However, the number is still increasing as new areas and substrata are examined. This has been aided by the studies of Hyde and co-workers (Ho, 1998; Hyde & Goh, 1997; 1998; Wong, 1996), who have significantly added to our knowledge of freshwater fungi. During this study 234 lignicolous freshwater fungi have been collected in Thailand and most are new records for the country. While further identification are needed to confirm some new species for future describ. Some of these freshwater fungi collected here are recorded as being from a freshwater habitat for the first time.

The primary result for this study was that the fungi colonising wood were different from those on decaying leaves (Goh & Hyde, 1996). On leaves, Ingoldian hyphomycetes predominate with few ascomycetes or basidiomycetes. However, one Ingoldian hyphomycetes have been recorded on wooden substrata. There are more ascomycetes and the mitosporic fungi found are significantly different from those on leaves.

Some of the aquatic fungi may have a terrestrial phase to their life-cycle, e.g. the discomycetes may account for why so few discomycetes are found in totally submerged conditions and are poorly reported in tropical locations (Hyde *et al.*, 1997). Various workers (Thomas, 1996; Ho, 1998) have commented that even fungi from lotic, lentic and artificial (e.g. water-cooling towers) habitats may differ significantly in species composition and diversity. In these cases environmental conditions may account for the differences in species diversity: degree of oxygenation of the water, water movement, turbulence, availability of substrata for colonisation, and water chemistry.

Species composition between lignicolous substrata and leaf colonising fungi can be accounted for by the nature of the substratum. Ingoldian hyphomycetes have not been shown to produce lignolytic enzymes (at least not in significant quantity) and may therefore use the more readily degradable polysaccharides such as starch, pectin and cellulose (Jones, 1981; Suberkropp, 1992; Suberkropp & Klug, 1980, 1981). Therefore, many of these would be unable to compete for nutrients on wood. Fungi inhabiting woody tissue may therefore be able to decompose lignocellulose as demonstrated by Eaton (1969) and Zare-Mairan & Shearer (1988).

This is the study on the diversity and ecology of freshwater fungi in Thailand, a group that has not been widely investigated in tropical/subtropical locations. In this study wood naturally submerged in streams was examined, and five timbers species were exposed for future comparing diversity at two streams with different physical characteristics, the use of local timbers, and in the method of assessment of fungal diversity. An isolation programme enabled to elucidate the teleomorph/anamorph connections of a number of taxa. Data from this study was then used to address the other objectives of this study for patterns of biodiversity, geographical distribution and substrate specificity.

Three objectives were targeted for investigation with the broad remit to document the diversity of freshwater fungi of Thailand. This is part of a wider BIOTEC programme on the fungal diversity of the country. Objectives have been met and are summarized respectively.

1. Diversity of freshwater fungi collected: 234 species.
2. A large number of samples/collections: 721 species.
3. A number of isolations: 318 strains
4. A Anamorph/teleomorph relationships: 3 connections with 1 more new recorded of Anamorph/teleomorph relationships.
5. Colonisation of 5 wood species at two selected test sites. This will need for complete set of data to summarize.

PUBLICATIONS

In this period of study, many aspects of these studies on taxonomy, ecology on colonisation and anamorph/teleomorph connections have been studied. Two new fungus were described in this study with *Jahnula siamensiae* and *Ellisembiosphaeria brachypus*, while the genus *Ellisembiosphaeria* was also a new genus from Thailand. Moreover, new family and new order were also erected as Aliouandostipitaceae and Jahnulales respectively.

In the last one year, one paper was published, two inpress, and the other two are in the last stage of preparation for submitting. All of these research papers will be published in the international Journals.

- **Sivichai, S.**, Jones, E.B.G. & Hywel-Jones, N.L. (2000). Fungal colonisation of wood in a freshwater stream at Khao Yai National Park, Thailand. *Fungal Diversity* 5, 71-88.
- **Sivichai, S.**, E. B. G. Jones & Hywel-Jones, N.L. Lignicolous freshwater higher fungi with reference to their teleomorph and anamorph stages. *Mycological Research* (inpress).
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APPENDIX 1

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0661	Unidentified Ascomycete	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0662	Unidentified Ascomycete	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0663	Sporoschisma uniseptatum	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0664	Annulatuscus velatisporus	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0665	Jahnula australiensis	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0666	Dictyochoeta sp. 1	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0667	Aquaphila albicans	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0668	Candelabrum broccchiatum	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0669	Helicomycetes roseus	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0670	Bombardia sp.	Wood	Submerged	25 Mar 2000	10 May 2000	Nam Tok Phlew, Chantaburi
0671	Gonytrichum sp. ?	Wood	Submerged	25 Mar 2000	10 May 2000	Nam Tok Phlew, Chantaburi
0672	Nectria sp. ?	Wood	Submerged	25 Mar 2000	10 May 2000	Nam Tok Phlew, Chantaburi
0673	Basidiomycete sp.	Wood	Submerged	25 Mar 2000	10 May 2000	Nam Tok Phlew, Chantaburi
0674	Helicoon sp.	Wood	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0675	Dictyochoeta sp. 1	Wood	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0676	Helicosporium sp. ?	Wood	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0677	Monotosporella sp.	Wood	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0678	Candelabrum broccchiatum	Wood	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0679	Basidiomycete sp.	Twig	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0680	Basidiomycete sp.	Twig	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0681	Codinae sp.	Wood	Submerged	18 May 2000	10 May 2000	Khao Yai National Park, Km 29.2
0682	Brachysporiella gayana	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0683	Canalisporium caribense	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0684	Savoryell fusiformis	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0685	Cancellidium applanatum	Wood	Submerged	26 Mar 2000	10 May 2000	Khao Soi Doi, Chantaburi
0686	Unidentified Hyphomycete sp 018	Wood	Submerged	25 Mar 2000	2 June 2000	Nam Tok Phlew, Chantaburi
0687	Helicoon sp.	Wood	Submerged	24 May 2000	12 June 2000	Nam Nao National Park
0688	Annulatuscus velatisporus	Wood	Submerged	24 May 2000	12 June 2000	Nam Nao National Park
0689	Brachysporiella gayana	Wood	Submerged	24 May 2000	12 June 2000	Nam Nao National Park
0690	Sporidesmium sp. ?	Wood	Submerged	24 May 2000	12 June 2000	Nam Nao National Park
0691	Helicosporium sp. ?	Wood	Submerged	24 May 2000	12 June 2000	Nam Nao National Park
0692	Fusarium sp.	Tectona grandis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0693	Nectria sp. 1	Sindora siamensis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0694	Unidentified Hyphomycete	Sindora siamensis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0695	Conidia in pycnidia sp. 1	Sindora siamensis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0696	Wiesneriomyces javanicus	Sindora siamensis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0697	Sigmoidea sp.1.	Sindora siamensis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0698	Unidentified Hyphomycete	Buchanania latifolia	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0699	Unidentified Hyphomycete	Buchanania latifolia	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0700	Trichoderma sp.	Buchanania latifolia	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Km 29.2
0701	Trichoderma sp.	Buchanania latifolia	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0702	Phaeoisaria sp.?	Buchanania latifolia	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0703	Penicillium sp.?	Mangifera caloneura	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0704	Fusarium sp?	Sindora siamensis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0705	Sporidesmiella hyalosperma	Tectona grandis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0706	Aquaticola sp.	Tectona grandis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0707	Cancellidium applanatum	Tectona grandis	Submerged	18 June 2000	26 June 2000	Khao Yai National Park, Tad Ta Phu
0708	Cudoniella sp.	?	Freshwater	18 June 2000	26 June 2000	England
0709	Cudoniella sp.	?	Freshwater	18 June 2000	26 June 2000	England
0710	Unidentified Hyphomycete	Wood	Submerged	24 May 2000	24 July 2000	Nam Nao National Park
0711	Discomycete sp.	Wood	Submerged	12 July 2000	8 Aug 2000	Khao Yai National Park, Tad Ta Phu
0712	Hymenoscyphus varicosporides	Wood	Submerged	12 July 2000	8 Aug 2000	Khao Yai National Park, Tad Ta Phu
0713	Bombardia sp.	Wood	Submerged	12 July 2000	8 Aug 2000	Khao Yai National Park, Tad Ta Phu
0714	Cancellidium applanatum	Wood	Submerged	12 July 2000	8 Aug 2000	Khao Yai National Park, Tad Ta Phu
0715	Unidentified Hyphomycete	Wood	Submerged	12 July 2000	8 Aug 2000	Khao Yai National Park, Tad Ta Phu
0716	Helicosporium cf griseum	Wood	Submerged	12 July 2000	8 Aug 2000	Khao Yai National Park, Tad Ta Phu
0717	Canalisporium pulchrum	Wood	Submerged	24 July 2000	8 Aug 2000	Halabara forest, Narathivas
0718	Trematospheria sp.	Tectona grandis	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0719	Conidia in pycnidia	Tectona grandis	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0720	Aquaticola sp.	Tectona grandis	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0721	Chaetospermum camelliae	Tectona grandis	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0722	Fusarium sp.	Tectona grandis	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0723	Unidentified Hyphomycete	Sindora siamensis	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0724	Candelabrum brocciatum	Stereospermum neutra	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0725	Stilbella holubovae	Stereospermum neutra	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0726	Conidia in black pycnidia	Mangifera caloneura	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0727	Conidia in yellow pycnidia	Mangifera caloneura	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0728	Conidia in yellow pycnidia	Mangifera caloneura	Submerged	18 June 2000	15 Aug 2000	Khao Yai National Park, Tad Ta Phu
0729	Sporoschisma saccardoii	Sindora siamensis	Submerged	18 June 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0730	Dictyosporium digitatum	Mangifera caloneura	Submerged	18 June 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0731	Phaeoisaria clamatidis	Buchanania latifolia	Submerged	18 June 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0732	Teleomorph of Phaeoisaria sp.	Buchanania latifolia	Submerged	18 June 2000	16 Aug 2000	Khao Yai National Park, Km 29.2

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0733	Nectria sp.?	Buchanania latifolia	Submerged	18 June 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0734	Elegantimycetes sp. 2	Wood	Submerged	24 July 2000	16 Aug 2000	Halabara forest, Narathivas
0735	Helicosporium sp.	Wood	Submerged	24 July 2000	16 Aug 2000	Halabara forest, Narathivas
0736	Ellisembia sp.?	Wood	Submerged	24 July 2000	16 Aug 2000	Halabara forest, Narathivas
0737	Dictyochoaeta sp. 1	Wood	Submerged	24 July 2000	16 Aug 2000	Halabara forest, Narathivas
0738	Helicomyces roseus	Wood	Submerged	24 July 2000	16 Aug 2000	Halabara forest, Narathivas
0739	Discomycete sp. (yellow)	Wood	Submerged	18 May 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0740	Sporoschisma saccardoi	Wood	Submerged	18 May 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0741	Melanochaeta hempsilla	Wood	Submerged	18 May 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0742	Unidentified Ascomycetes	Wood	Submerged	18 May 2000	16 Aug 2000	Khao Yai National Park, Km 29.2
0743	Unidentified Hyphomycete	Wood	Submerged	21 July 2000	24 Aug 2000	Halabara forest, Narathivas
0744	Sporoschisma uniseptatum	Wood	Submerged	21 July 2000	24 Aug 2000	Halabara forest, Narathivas
0745	Dactylaria sp.	Wood	Submerged	21 July 2000	24 Aug 2000	Halabara forest, Narathivas
0746	Dactylaria sp.	Wood	Submerged	21 July 2000	24 Aug 2000	Halabara forest, Narathivas
0747	Dictyochoaeta gyrosetula	Wood	Submerged	21 July 2000	24 Aug 2000	Halabara forest, Narathivas
0748	Savoryella fusiformis	Wood	Submerged	24 July 2000	29 Aug 2000	Halabara forest, Narathivas
0749	Canalisporium pulchrum	Wood	Submerged	24 July 2000	29 Aug 2000	Halabara forest, Narathivas
0750	Dictyochoaeta sp. 4	Wood	Submerged	24 July 2000	29 Aug 2000	Halabara forest, Narathivas
0751	Unidentified Hyphomycete	Wood	Submerged	24 July 2000	29 Aug 2000	Halabara forest, Narathivas
0752	Ellisembia adscendens	Wood	Submerged	24 July 2000	29 Aug 2000	Halabara forest, Narathivas
0753	Dactylaria sp.?	Wood	Submerged	24 July 2000	29 Aug 2000	Halabara forest, Narathivas
0754	Canalisporium elegans	Wood	Submerged	12 Aug 2000	1 Sep 2000	Khao Keao, Chonburi
0755	Helicomyces roseus	Wood	Submerged	12 Aug 2000	1 Sep 2000	Khao Keao, Chonburi
0756	Gonytrichum sp.	Wood	Submerged	12 Aug 2000	1 Sep 2000	Khao Keao, Chonburi
0757	Dictyochoaeta sp.2	Wood	Submerged	12 Aug 2000	1 Sep 2000	Khao Keao, Chonburi
0758	Unidentified Ascomycete	Wood	Submerged	30 Aug 2000	1 Sep 2000	Samlan National Park
0759	Unidentified Ascomycete	Wood	Submerged	30 Aug 2000	5 Sep 2000	Samlan National Park
0760	Sigmoidea sp.2	Wood	Submerged	30 Aug 2000	5 Sep 2000	Samlan National Park
0761	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	5 Sep 2000	Samlan National Park
0762	Xylomyces chlamydosporis	Wood	Submerged	30 Aug 2000	6 Sep 2000	Samlan National Park
0763	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	6 Sep 2000	Samlan National Park
0764	Anthostomella aquatica?	Wood	Submerged	30 Aug 2000	6 Sep 2000	Samlan National Park
0765	Sporoschisma saccardoi	Wood	Submerged	30 Aug 2000	6 Sep 2000	Khao Yai National Park, Jed Kot
0766	Savoryella fusiformis	Wood	Submerged	30 Aug 2000	6 Sep 2000	Khao Yai National Park, Jed Kot
0767	Canalisporium elegans	Wood	Submerged	30 Aug 2000	6 Sep 2000	Khao Yai National Park, Jed Kot
0768	Annulascus velatisporus	Wood	Submerged	26 Mar 2000	6 Sep 2000	Khao Soi Doi, Chantaburi

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0769	Unidentified Hyphomycete	Wood	Submerged	26 Mar 2000	6 Sep 2000	Khao Soi Doi, Chantaburi
0770	Sporoschisma uniseptatum	Wood	Submerged	26 Mar 2000	11 Sep 2000	Khao Soi Doi, Chantaburi
0771	Aquaticola sp.	Wood	Submerged	12 Aug 2000	11 Sep 2000	Khao Keao, Chonburi
0772	Melanocephala sp.	Wood	Submerged	30 Aug 2000	11 Sep 2000	Samlan National Park
0773	Ellisembia adscendens	Wood	Submerged	30 Aug 2000	11 Sep 2000	Samlan National Park
0774	Savoryella aquatica	Wood	Submerged	30 Aug 2000	11 Sep 2000	Samlan National Park
0775	Monodictys sp.1	Wood	Submerged	30 Aug 2000	11 Sep 2000	Samlan National Park
0776	Synnema (Basidio?)	Wood	Submerged	30 Aug 2000	11 Sep 2000	Samlan National Park
0777	Unidentified Ascomycete	Wood	Submerged	12 June 2000	11 Sep 2000	Khao Yai National Park, Km 29.2
0778	Unidentified Ascomycete	Wood	Submerged	12 June 2000	11 Sep 2000	Khao Yai National Park, Km 29.2
0779	Anulatasus velatisporus	Wood	Submerged	12 June 2000	10 Sep 2000	Khao Yai National Park, Tad Ta Phu
0780	Basidiomycete sp.	Wood	Submerged	18 May 2000	10 Sep 2000	Khao Yai National Park, Km 29.2
0781	Trematospheria sp.	Wood	Submerged	18 May 2000	10 Sep 2000	Khao Yai National Park, Km 29.2
0782	Dactylaria sp.	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0783	Savoryella fusiformis	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0784	Sporoschisma uniseptatum	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0785	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0786	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0787	Stilbella sp.	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0788	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0789	Canalisporium caribense	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0790	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0791	Monodictys sp.1	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0792	Canalisporium pulchrum	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0793	Canalisporium elegans	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0794	Boerlagiomyces websteri	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0795	Canalisporium pallidum	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0796	Unidentified Ascomycete	Wood	Submerged	30 Aug 2000	12 Sep 2000	Khao Yai National Park, Jed Kot
0797	Unidentified Ascomycete	Wood	Submerged	18 Sept 2000	22 Sep 2000	Nam Tok Phlew, Chantaburi
0798	Melanocephala sp.	Wood	Submerged	30 Aug 2000	22 Sep 2000	Nam Tok Phlew, Chantaburi
0799	Massarina bipolaris	Wood	Submerged	30 Aug 2000	22 Sep 2000	Nam Tok Phlew, Chantaburi
0800	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0801	Dactylaria sp1	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0802	Digitosporium digitatum	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0803	Thozetella nivea	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0804	Unidentified Hyphomycete	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0805	Sporidesmium sp.?	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0806	Sporoschisma uniseptatum	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0807	Xylomyces chlamydosporis	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0808	Xylomyces chlamydosporis	Wood	Submerged	30 Aug 2000	27 Sep 2000	Nam Tok Phlew, Chantaburi
0809	Canalisporium exiguum	Wood	Submerged	20 Sep 2000	29 Sep 2000	Khao Soi Doi, Chantaburi
0810	Aquaphila albicans	Wood	Submerged	25 Sep 2000	3 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0811	Helicosporium cf. vegetum	Wood	Submerged	25 Sep 2000	3 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0812	Helicosporium griseum	Wood	Submerged	24 July 2000	3 Oct 2000	Halabara forest, Narathivas
0813	Dictyosporium nigroapice	Wood	Submerged	24 July 2000	3 Oct 2000	Halabara forest, Narathivas
0814	Unidentified Hyphomycete	Wood	Submerged	24 July 2000	3 Oct 2000	Halabara forest, Narathivas
0815	Elegantimycetes sp.?	Wood	Submerged	28 Sep 2000	4 Oct 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0816	Unidentified Ascomycete biotunicate	Wood	Submerged	28 Sep 2000	5 Oct 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0817	Unidentified Ascomycete	Wood	Submerged	28 Sep 2000	5 Oct 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0818	Trichoderma sp.	Wood	Submerged	28 Sep 2000	9 Oct 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0819	Acrodactys globolosa	Wood	Submerged	28 Sep 2000	9 Oct 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0820	Acrogenospora sphaerocephala	Wood	Submerged	18 Sep 2000	10 Oct 2000	Nam Tok Phlew, Chantaburi
0821	Unidentified Ascomycete	Wood	Submerged	18 Sep 2000	10 Oct 2000	Nam Tok Phlew, Chantaburi
0822	Brachysporiella gayana	Wood	Submerged	18 Sep 2000	10 Oct 2000	Nam Tok Phlew, Chantaburi
0823	Sporoschisma uniseptatum	Wood	Submerged	18 Sep 2000	10 Oct 2000	Nam Tok Phlew, Chantaburi
0824	Massarina bipolaris	Wood	Submerged	18 Sep 2000	11 Oct 2000	Nam Tok Phlew, Chantaburi
0825	Sporidesmium sp.	Wood	Submerged	18 Sep 2000	11 Oct 2000	Nam Tok Phlew, Chantaburi
0826	Aquaticola sp.?	Wood	Submerged	18 Sep 2000	13 Oct 2000	Nam Tok Phlew, Chantaburi
0827	Helicomyces sp.?	Wood	Submerged	19 Sep 2000	16 Oct 2000	Khao Soi Doi, Chantaburi
0828	Bombardia sp.	Wood	Submerged	19 Sep 2000	16 Oct 2000	Khao Soi Doi, Chantaburi
0829	Ophioceras dolichostomum	Wood	Submerged	19 Sep 2000	16 Oct 2000	Khao Soi Doi, Chantaburi
0830	Sporoschisma uniseptatum	Wood	Submerged	19 Sep 2000	16 Oct 2000	Khao Soi Doi, Chantaburi
0831	Phaeoisaria clematidis	Wood	Submerged	19 Sep 2000	16 Oct 2000	Khao Soi Doi, Chantaburi
0832	Helicomyces roseus	Wood	Submerged	19 Sep 2000	16 Oct 2000	Khao Soi Doi, Chantaburi
0833	Xylomyces elegans	Wood	Submerged	20 Sep 2000	17 Oct 2000	Khao Soi Doi, Chantaburi
0834	Nectria sp.?	Wood	Submerged	20 Sep 2000	17 Oct 2000	Khao Soi Doi, Chantaburi
0835	Anthostomella aquatica	Wood	Submerged	20 Sep 2000	17 Oct 2000	Khao Soi Doi, Chantaburi
0836	Melanochaeta hemipisila	Wood	Submerged	20 Sep 2000	18 Oct 2000	Khao Soi Doi, Chantaburi
0837	Sporoschisma saccardi	Wood	Submerged	20 Sep 2000	18 Oct 2000	Khao Soi Doi, Chantaburi
0838	Unidentified Hyphomycete	Wood	Submerged	20 Sep 2000	18 Oct 2000	Khao Soi Doi, Chantaburi
0839	Ellisembia sp.	Wood	Submerged	20 Sep 2000	20 Oct 2000	Khao Soi Doi, Chantaburi
0840	Jahnula australiensis	Wood	Submerged	20 Sep 2000	20 Oct 2000	Khao Soi Doi, Chantaburi

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0841	Phaeoisaria clematidis	Wood	Submerged	20 Sep 2000	20 Oct 2000	Khao Soi Doi, Chantaburi
0842	Sporoschisma saccardoi	Wood	Submerged	20 Sep 2000	24 Oct 2000	Khao Soi Doi, Chantaburi
0843	Ophioceras dolichostomum	Wood	Submerged	20 Sep 2000	24 Oct 2000	Khao Soi Doi, Chantaburi
0844	Unidentified Ascomycete	Wood	Submerged	20 Sep 2000	24 Oct 2000	Khao Soi Doi, Chantaburi
0845	Nectria sp.	Wood	Submerged	20 Sep 2000	24 Oct 2000	Khao Soi Doi, Chantaburi
0846	Acrogenospora sphaerocephala	Wood	Submerged	20 Sep 2000	24 Oct 2000	Khao Soi Doi, Chantaburi
0847	Monotorella sp.	Wood	Submerged	20 Sep 2000	27 Oct 2000	Khao Soi Doi, Chantaburi
0848	Unidentified Hyphomycete	Wood	Submerged	20 Sep 2000	27 Oct 2000	Khao Soi Doi, Chantaburi
0849	Candelabrum-like	Wood	Submerged	20 Sep 2000	27 Oct 2000	Khao Soi Doi, Chantaburi
0850	Unidentified Hyphomycete	Wood	Submerged	20 Sep 2000	27 Oct 2000	Khao Soi Doi, Chantaburi
0851	Sporoschisma saccardoi	Wood	Submerged	25 Sep 2000	30 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0852	Acrogenospora sphaerocephala	Wood	Submerged	25 Sep 2000	30 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0853	Ganglostilbe cf. indica	Wood	Submerged	25 Sep 2000	30 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0854	Unidentified Hyphomycete	Wood	Submerged	25 Sep 2000	31 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0855	Penicillium-like	Wood	Submerged	25 Sep 2000	31 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0856	Sporidesmium sp.	Wood	Submerged	25 Sep 2000	31 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0857	Annulatuscus velatisporus	Wood	Submerged	25 Sep 2000	31 Oct 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0858	Unidentified Hyphomycete	Wood	Submerged	25 Sep 2000	1 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0859	Unidentified Hyphomycete	Wood	Submerged	25 Sep 2000	1 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0860	Discomycete sp.	Wood	Submerged	25 Sep 2000	1 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0861	Annulatuscus velatisporus	Wood	Submerged	25 Sep 2000	2 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0862	Helicomyces rosceus	Wood	Submerged	25 Sep 2000	2 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0863	Nectria sp.	Wood	Submerged	25 Sep 2000	2 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0864	Taeniolella cf. stricta	Wood	Submerged	25 Sep 2000	2 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0865	Aquaphila albicans	Wood	Submerged	25 Sep 2000	2 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0866	Ellisembia sp.	Wood	Submerged	25 Sep 2000	6 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0867	Lachnum cf. palmar	Wood	Submerged	25 Sep 2000	6 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0868	Monotorella sp.	Wood	Submerged	25 Sep 2000	6 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0869	Annulatuscus velatisporus	Wood	Submerged	25 Sep 2000	6 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0870	Unidentified Hyphomycete	Wood	Submerged	26 Sep 2000	6 Nov 2000	Krang Kra Jan National Park, Pa La Au Waterfall
0871	Unidentified Ascomycete	Wood	Submerged	26 Sep 2000	9 Nov 2000	Krang Kra Jan National Park
0872	Unidentified Hyphomycete spA.	Wood	Submerged	26 Sep 2000	9 Nov 2000	Krang Kra Jan National Park
0873	Ophioceras dolichostomum	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park
0874	Unidentified Hyphomycete	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park
0875	Monotorella sp.	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park
0876	Nectria sp.	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park, Km 18

SS No#	Fungus Identification	Substrate	Habitat	Collect Date	Date	Site
0877	Canalisporium elegans	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park, Km 18
0878	Pseudohalonestria sp.	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park, Km 18
0879	Helicomyces roseus	Wood	Submerged	26 Sep 2000	10 Nov 2000	Krang Kra Jan National Park, Km 18
0880	Unidentified Hyphomycete sp.A.	Wood	Submerged	26 Sep 2000	15 Nov 2000	Krang Kra Jan National Park, Km 18
0881	Physalidium cf. Elegans	Wood	Submerged	26 Sep 2000	15 Nov 2000	Krang Kra Jan National Park, Km 18
0882	Acrogenospora sphaerocephala	Wood	Submerged	26 Sep 2000	15 Nov 2000	Krang Kra Jan National Park, Km 18
0883	Phaeoisaria clematidis	Wood	Submerged	26 Sep 2000	16 Nov 2000	Krang Kra Jan National Park, Km 18
0884	Unidentified Hyphomycete	Wood	Submerged	20 Sep 2000	16 Nov 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0885	Anthostomella aquatica	Sindora siamensis	Submerged	13 Nov 2000	27 Nov 2000	Khao Yai National Park, Km 29.2
0886	Unidentified Hyphomycete	Sindora siamensis	Submerged	13 Nov 2000	27 Nov 2000	Khao Yai National Park, Km 29.2
0887	Unidentified Hyphomycete	Sindora siamensis	Submerged	13 Nov 2000	27 Nov 2000	Khao Yai National Park, Km 29.2
0888	Kirschsteinothelia elaterascus	Sindora siamensis	Submerged	13 Nov 2000	27 Nov 2000	Khao Yai National Park, Km 29.2
0889	Aquaticola sp. 1	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0890	Sporoschisma uniseptatum	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0891	Sporidesmium- like	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0892	Dictyochaeta sp. 1	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0893	Unidentified Hyphomycete	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0894	Canalisporium pallidum	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0895	Canalisporium elegans	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0896	Unidentified Hyphomycete	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0897	Savoryella aquatica	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0898	Helicomyces roseus	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0899	Canalisporium pulchrum	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0900	Berkleasium sp1.	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0900.01	Annulatuscus sp.	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0900.02	Discomycete sp.	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0901	Boerlagiomyces websteri	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0902	Acrodictys globolosa	Stereospermium neutra	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0903	Anthostomella aquatica	Tectona grandis	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0904	Kirschsteinothelia elaterascus	Tectona grandis	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0905	Unidentified Hyphomycete	Tectona grandis	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0906	Unidentified Hyphomycete	Tectona grandis	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0907	Anthostomella aquatica	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0908	Massarina thalassioidea	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0909	Sporoschisma uniseptatum	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0910	Dactylaria sp.?	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0911	Dictyosporium giganteum	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0912	Sporoschisma saccardoi	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0913	Unidentified Hyphomycete	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0914	Helicomycetes roseus	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0915	Halosarpha sp.	Buchanania latifolia	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0916	Aquaticola sp. 1	Mangifera caloneura	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0917	Ophioceras dolichostomum	Mangifera caloneura	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0918	Dictyochoaeta sp. 1	Mangifera caloneura	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0919	Thozetella nivea	Mangifera caloneura	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0920	Unidentified Hyphomycete	Mangifera caloneura	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0921	Helicomycetes roseus	Mangifera caloneura	Submerged	13 Nov 2000	29 Nov 2000	Khao Yai National Park, Km 29.2
0922	Unidentified Hyphomycete	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0923	Dictyochoaeta sp. 1	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0924	Cancellidium applanatum	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0925	Thozetella nivea	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0926	Dictyochoaeta sp. 2	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0927	Sporoschisma uniseptatum	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0928	Dactylaria sp.	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0929	Helicomycetes roseus	Tectona grandis	Submerged	13 Nov 2000	1 Dec 2000	Khao Yai National Park, Tad Ta Phu
0930	Massarina bipolaris	Mangifera caloneura	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0931	Unidentified Hyphomycete (Basidio?)	Mangifera caloneura	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0932	Annulatus velatisporus	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0933	Unidentified Hyphomycete (Basidio?)	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0934	Lower fungi	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0935	Anthostomella aquatica	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0936	Massarina bipolaris	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0937	Trichocladium cf varicosporoides	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0938	Thozetella nivea	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0939	Dictyochoaeta sp. 1	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0940	Halosarpha sp.	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0941	Helicosporium sp.	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0942	Helicomycetes roseus	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0943	Bombardia sp.	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0944	Unidentified Hyphomycete (Basidio?)	Buchanania latifolia	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0945	Massarina bipolaris	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0946	Tricladium sp.	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu

SS No#	Fungus Identification	Substrate	Habitat	Collect Date	Date	Site
0947	Bombardia sp.	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0948	Cancellidium sp.	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0949	Stillbella holubovae	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0950	Discomycete sp.	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0951	Anthostomella sp.	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0952	Trichoderma sp.	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0953	Helicomyces roseus	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0954	Unidentified Hyphomycete	Sindora siamensis	Submerged	13 Nov 2000	4 Dec 2000	Khao Yai National Park, Tad Ta Phu
0955	Helicomyces roseus	Wood	Submerged	28 Sep 2000	21 Dec 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0956	Lower fungi	Wood	Submerged	28 Sep 2000	21 Dec 2000	Krang Kra Jan National Park, Tor Tip Waterfall
0957	Aquaspheria dimorphospora	Wood	Submerged	18 Dec 2000	21 Dec 2000	Ko Chang National Park
0958	Helicomyces roseus	Wood	Submerged	18 Dec 2000	21 Dec 2000	Ko Chang National Park
0959	Unidentified Ascomycete	Wood	Submerged	18 Dec 2000	21 Dec 2000	Ko Chang National Park
0960	Unidentified Ascomycete	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0961	Annulatuscus velatissporus	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0962	Unidentified Hyphomycete	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0963	Aquaspheria dimorphospora	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0964	Annulatuscus velatissporus	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0965	Helicomyces roseus	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0966	Helicomyces roseus	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0967	Massarina sp.	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0968	Sporoschisma uniseptatum	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0969	Massarina bipolaris	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0970	Unidentified Hyphomycete	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0971	Unidentified Hyphomycete	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0972	Aquaspheria dimorphospora	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0973	Brachydesmiella caudata	Wood	Submerged	18 Dec 2000	23 Dec 2000	Ko Chang National Park
0974	Unidentified Ascomycete?	Sindora siamensis	Submerged	13 Nov 2000	26 Dec 2000	Khao Yai National Park, Km 29.2
0975	Trematospheeria sp.	Mangifera caloneura	Submerged	13 Nov 2000	26 Dec 2000	Khao Yai National Park, Km 29.2
0976	Annulatuscus sp.	Mangifera caloneura	Submerged	13 Nov 2000	26 Dec 2000	Khao Yai National Park, Km 29.2
0977	Dictyosporium heptasporum	Wood	Submerged	27 Sep 2000	26 Dec 2000	Krang Kra Jan National Park, Km 18
0978	Trichocladium linderii	Wood	Submerged	27 Sep 2000	26 Dec 2000	Krang Kra Jan National Park, Km 18
0979	Annulatuscus sp.	Wood	Submerged	27 Sep 2000	26 Dec 2000	Krang Kra Jan National Park, Km 18
0980	Mycocalia reticulata	Wood	Submerged	27 Sep 2000	26 Dec 2000	Krang Kra Jan National Park, Km 18
0981	Sporoschisma mirabile	Wood	Submerged	27 Sep 2000	26 Dec 2000	Krang Kra Jan National Park, Km 18
0982	Unidentified Hyphomycete	Wood	Submerged	27 Sep 2000	26 Dec 2000	Krang Kra Jan National Park, Tor Tip Waterfall

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
0983	Acrogenospora sphaerocephala	Wood	Submerged	18 Dec 2000	3 Jan 2001	Ko Chang National Park
0984	Nawawia filiformis	Wood	Submerged	18 Dec 2000	3 Jan 2001	Ko Chang National Park
0985	Dictyochaeta sp. 1	Wood	Submerged	18 Dec 2000	3 Jan 2001	Ko Chang National Park
0986	Sporoschisma uniseptatum	Wood	Submerged	18 Dec 2000	3 Jan 2001	Ko Chang National Park
0987	Monotoporella setosa var. macrospor	Wood	Submerged	18 Dec 2000	3 Jan 2001	Ko Chang National Park
0988	Unidentified Hyphomycete	Wood	Submerged	13 Nov 2000	3 Jan 2001	Khao Yai National Park, Tad Ta Phu
0989	Massarina bipolaris	Wood	Submerged	13 Nov 2000	3 Jan 2001	Khao Yai National Park, Tad Ta Phu
0990	Aquaticola sp.	Wood	Submerged	13 Nov 2000	3 Jan 2001	Khao Yai National Park, Tad Ta Phu
0991	Anthostomella sp.	Wood	Submerged	13 Nov 2000	3 Jan 2001	Khao Yai National Park, Tad Ta Phu
0992	Monotoporella setosa var. macrospor	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0993	Trichoderma sp.	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0994	Dictyochaeta sp. 1	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0995	Sporidesmium-like	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0996	Monotoporella setosa var. macrospor	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0997	Nawawia filiformis	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0998	Nawawia filiformis	Wood	Submerged	18 Oct 2001	4 Jan 2001	Ko Chang National Park
0999	Phaeoisaria clematidis	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1000	Dactylaria-like	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1001	Phaeoisaria clematidis	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1002	Sporoschisma uniseptatum	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1003	Dictyochaeta sp. 1	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1004	Unidentified Hyphomycete	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1005	Nawawia filiformis	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1006	Dictyochaeta sp. 1	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1007	Phaeoisaria clematidis	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1008	Dictyochaeta sp. 1	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1009	Sporoschisma uniseptatum	Wood	Submerged	18 Oct 2001	5 Jan 2001	Ko Chang National Park
1010	Acrogenospora sphaerocephala	Wood	Submerged	18 Oct 2001	15 Jan 2001	Ko Chang National Park
1011	Sporoschisma saccardoi	Wood	Submerged	18 Oct 2001	15 Jan 2001	Ko Chang National Park
1012	Dictyochaeta sp. 1	Wood	Submerged	18 Oct 2001	15 Jan 2001	Ko Chang National Park
1013	Monotoporella setosa var. macrospor	Wood	Submerged	18 Oct 2001	15 Jan 2001	Ko Chang National Park
1014	Helicomyces reusens?	Wood	Submerged	9 Jan 2001	16 Jan 2001	Khao Sok National Park
1015	Unidentified Hyphomycete	Wood	Submerged	9 Jan 2001	16 Jan 2001	Khao Sok National Park
1016	Monotoporella setosa var. macrospor	Wood	Submerged	9 Jan 2001	16 Jan 2001	Khao Sok National Park
1017	Ophioceras sp.?	Wood	Submerged	9 Jan 2001	16 Jan 2001	Khao Sok National Park
1018	Anthostomella aquatica?	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park

17/8/01

17/8/01

SS No#	Fungus Identification	Substrate	Habitat	Collect Date	Date	Site
1019	Massarina sp.3	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park
1020	Annulatuscus velatisporus	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park
1021	Helicosporium cf. Griseum	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park
1022	Aquaphila albicans	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park
1023	Helicomycetes roseus	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park
1024	Aquaphila albicans	Wood	Submerged	9 Jan 2001	17 Jan 2001	Khao Sok National Park
1025	Monotosporella setosa var. macrospor	Wood	Submerged	27 Sep 2000	22 Jan 2001	Krang Kra Jan National Park, Tor Tip Waterfall
1026	Unidentified Hyphomycete	Wood	Submerged	25 Oct 2000	23 Jan 2001	Nam Nao Natioanl Park
1027	Unidentified Hyphomycete	Wood	Submerged	25 Oct 2000	23 Jan 2001	Nam Nao Natioanl Park
1028	Unidentified Hyphomycete	Wood	Submerged	25 Oct 2000	23 Jan 2001	Nam Nao Natioanl Park
1029	Sporidesmium sp.?	Wood	Submerged	25 Oct 2000	23 Jan 2001	Nam Nao Natioanl Park
1030	Monodictys sp	Wood	Submerged	25 Oct 2000	23 Jan 2001	Nam Nao Natioanl Park
1031	Sporoschisma mirabile	Wood	Submerged	9 Jan 2001	29 Jan 2001	Khao Sok National Park
1032	Helicomycetes roseus	Wood	Submerged	9 Jan 2001	29 Jan 2001	Khao Sok National Park
1033	Acrogenospora sphaerocephala	Wood	Submerged	9 Jan 2001	29 Jan 2001	Khao Sok National Park
1034	Ellisembia opaca	Wood	Submerged	9 Jan 2001	29 Jan 2001	Khao Sok National Park
1035	Sporoschisma uniseptatum	Wood	Submerged	9 Jan 2001	29 Jan 2001	Khao Sok National Park
1036	Camposporium sp	Wood	Submerged	9 Jan 2001	29 Jan 2001	Khao Sok National Park
1037	Phaeoisaria clematidis	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1038	Helicomycetes roseus	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1039	Acrogenospora sphaerocephala	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1040	Sporidesmium- like	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1041	Dictyochoeta sp.1	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1042	Verticillium sp.	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1043	Acrodictys globolosa	Wood	Submerged	9 Jan 2001	30 Jan 2001	Khao Sok National Park
1044	Sporoschisma saccardoii	Wood	Submerged	9 Jan 2001	31 Jan 2001	Khao Sok National Park
1045	Massarina sp	Wood	Submerged	9 Jan 2001	1 Feb 2001	Khao Sok National Park
1046	Sporoschisma mirabile	Wood	Submerged	9 Jan 2001	1 Feb 2001	Khao Sok National Park
1047	Ophioceras dolichostomum	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1048	Pseudospirotes sp2	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1049	Anthostomella aquatica	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1050	Unidentified Hyphomycete (immature	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1051	Annulatuscus velatisporus	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1052	Bombardia sp.	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1053	Unidentified Hyphomycete	Wood	Submerged	9 Jan 2001	6 Feb 2001	Khao Sok National Park
1054	Acrogenospora sphaerocephala	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1055	Bombardia sp.	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1056	Cancellidium applanatum	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1057	Sporoschisma uniseptatum	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1058	Unidentified Hyphomycete	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1059	Sporidesmiella -like	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1060	Annulatuscus velatissporus	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1061	Massarina sp3.	Wood	Submerged	4 Dec 2001	14 Feb 2001	Khao Yai National Park, Thanrathana Waterfall
1062	Xylomyces chlamydosporis	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1063	Massarina sp3.	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1064	Mamilisphaeria dimorphospora	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1065	Spadicoides spl.	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1066	Savoryella aquatica	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1067	Savoryella fusiformis	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1068	Acrogenospora sphaerocephala	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1069	Unidentified Ascomycete bitunicate	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1070	Helminthosporium acaciae	Wood	Submerged	13 Sep 2001	14 Feb 2001	Khao Yai National Park, Tad Ta Phu
1071	Annulatuscus sp.	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1072	Ellisembia opaca	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1073	Annulatuscus velatissporus	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1074	Acrogenospora sphaerocephala	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1075	Delitschia sp.	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1076	Annulatuscus velatissporus	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1077	Xylomyces elegans	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1078	Cancellidium applanatum	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1079	Ellisembia opaca	Wood	Submerged	9 Jan 2001	19 Feb 2001	Khao Sok National Park
1080	Annulatuscus velatissporus	Wood	Submerged	18 Dec 2001	21 Feb 2001	Ko Chang National Park
1081	Spirosphaerae spl.	Wood	Submerged	18 Dec 2001	21 Feb 2001	Ko Chang National Park
1082	Cladosporium-like	Wood	Submerged	18 Dec 2001	21 Feb 2001	Ko Chang National Park
1083	Cirrenalia tropicalis	Wood	Submerged	18 Dec 2001	21 Feb 2001	Ko Chang National Park
1084	Unidentified Coelomycete	Wood	Submerged	18 Dec 2001	21 Feb 2001	Ko Chang National Park
1085	Helicomycetes rescus	Wood	Submerged	7 Dec 2001	21 Feb 2001	Doi Inthanon National Park, Mae Krang Waterfall
1086	Caryospora minima	Wood	Submerged	7 Dec 2001	21 Feb 2001	Doi Inthanon National Park, Mae Krang Waterfall
1087	Sporoschisma saccardoi	Wood	Submerged	7 Dec 2001	21 Feb 2001	Doi Inthanon National Park, Mae Krang Waterfall
1088	Savoryella cf grandispora	Wood	Submerged	7 Dec 2001	21 Feb 2001	Doi Inthanon National Park, Mae Krang Waterfall
1089	Sporoschisma saccardoi	Wood	Submerged	9 Jan 2001	23 Feb 2001	Khao Sok National Park
1090	Savoryella aquatica	Wood	Submerged	9 Jan 2001	23 Feb 2001	Khao Sok National Park

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1091	Acrogenospora sphaerocephala	Wood	Submerged	9 Jan 2001	23 Feb 2001	Khao Sok National Park
1092	Xylomyces chlamydosporis	Wood	Submerged	9 Jan 2001	23 Feb 2001	Khao Sok National Park
1093	Melanocephala australiensis	Wood	Submerged	13 Sep 2001	23 Feb 2001	Khao Yai National Park, Tad Ta Phu
1094	Cancellidium applanatum	Wood	Submerged	13 Sep 2001	23 Feb 2001	Khao Yai National Park, Tad Ta Phu
1095	Ophioceras dolichostomum	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1096	Helicomycetes reseus	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1097	Phaeoisaria clematidis	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1098	Trichoderma sp.	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1099	Acrogenospora sphaerocephala	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1100	Unidentified Hyphomycete	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1101	Helicomycetes reseus	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1102	Nawawia filiformis	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1103	Sporoschisma saccardoii	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1104	Massarina ingoldiana-like	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1105	Thozetella nivea	Wood	Submerged	15 Feb 2001	26 Feb 2001	Halabara forest, Narathivas
1106	Monotoporella setosa var. macrospor	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1107	Elegantimycetes sp.	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1108	Dictyochoaeta sp. 1	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1109	Ophioceras dolichostomum	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1110	Acrogenospora sphaerocephala	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1111	Wiesneriomyces javanicus	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1112	Unidentified Hyphomycete	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1113	Ophioceras dolichostomum	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1114	Unidentified Basidio?	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1115	Sporidesmiella-like	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1116	Sporoschisma uniseptatum	Wood	Submerged	15 Feb 2001	27 Feb 2001	Halabara forest, Narathivas
1117	Aquaphila abicans	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1118	Cancellidium applanatum	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1119	Dictyochoaeta sp. 1	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1120	Helicomycetes reseus	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1121	Dinemasporium cf strigosum	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1122	Nawawia filiformis	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1123	Dictyochoaeta sp. 1	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1124	Helicomycetes reseus	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1125	Dinemasporium cf strigosum	Wood	Submerged	15 Feb 2001	28 Feb 2001	Halabara forest, Narathivas
1126	Ophioceras dolichostomum	Wood	Submerged	26 Feb 2001	1 Mar 2001	Erawan Waterfall, Khanchanaburi

SSS No#	Fungus Identification	Substrate	Habitat	Collect Date	Date	Site
1127	Annulatuscus velatisporus	Wood	Submerged	26 Feb 2001	1 Mar 2001	Erawan Waterfall, Khanchanaburi
1128	Chaetospermum sp	Wood	Submerged	26 Feb 2001	1 Mar 2001	Erawan Waterfall, Khanchanaburi
1129	Helicomycetes reus	Wood	Submerged	26 Feb 2001	1 Mar 2001	Erawan Waterfall, Khanchanaburi
1130	Spadicoides sp	Wood	Submerged	12 Dec 2000	1 Mar 2001	Khao Yai National Park, Sarika Waterfall
1131	Aquaphila abicans	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1132	Nawawia filiformis	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1133	Dictyochoeta sp. 1	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1134	Savoryella verrucosa	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1135	Helicomycetes reus	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1136	Phaeosaria clematidis	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1137	Nectria sp.	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1138	Ellisembia opaca	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1139	Acrodictys globolosa	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1140	Savoryella aquatica	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1141	Acrogenospora sphaerocephala	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1142	Sporoschisma uniseptatum	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1143	Nectria sp.	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1144	Nectria sp.	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1145	Anthostomella aquatica	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1146	Acrogenospora sphaerocephala	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1147	Massarina sp3.	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1148	Cancelidium applanatum	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1149	Phaeosaria clematidis	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1150	Sporoschisma uniseptatum	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1151	Annulatuscus velatisporus	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1152	Dictyochoeta sp. 1	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1153	Cancelidium applanatum	Wood	Submerged	9 Jan 2001	5 Mar 2001	Khao Sok National Park
1154	Xylomyces chlamydosporis	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1155	Annulatuscus velatisporus	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1156	Nawawia filiformis	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1157	Sporoschisma uniseptatum	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1158	Helicomycetes reus	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1159	Berkleasium spl-like	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1160	Acrogenospora sphaerocephala	Wood	Submerged	13 Nov 2000	6 Mar 2001	Khao Yai National Park, Tad Ta Phu
1161	Ophioceras dolichostomum	Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall
1162	Massarina ingoldiana	Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall
1163		Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1164	Cancellidium applanatum	Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall
1165	Thozetella nivea	Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall
1166	Sporoschisma saccardoi	Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall
1167	Helicomycetes reus	Wood	Submerged	4 Dec 2000	6 Mar 2001	Khao Yai National Park, Thanrathana Waterfall
1168	Spadicoides sp1	Wood	Submerged	4 Dec 2000	6 Mar 2001	Ko Chang National Park
1169	Massarina ingoldiana-like	Wood	Submerged	19 Dec 2000	7 Mar 2001	Ko Chang National Park
1170	Annulatascus velatisporus	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1171	Unidentified Hyphomycete	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1172	Monosporella sp	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1173	Canalisporium pallidum	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1174	Sporoschisma saccardoi	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1175	Bactrodesmium longisporum	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1176	Boerlagiomyces websteri	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1177	Nectria sp	Wood	Submerged	25 Sep 2000	9 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1178	Anthostomella aquatica	Wood	Submerged	15 Feb 2001	12 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1179	Annulatascus velatisporus	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1180	Nectria sp.	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1181	Ellisembia opaca	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1182	Ellisembia opaca	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1183	Sporidesmium-like	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1184	Trichoderma sp.	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1185	Helicomycetes reus	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1186	Sporoschisma uniseptatum	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1187	Anthostomella aquatica	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1188	Sporidesmium-like	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1189	Monotosporella setosa var. macrospor	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1190	Ophioceras dolichostomum	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1191	Nectria sp.	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1192	Helicomycetes reus	Wood	Submerged	15 Feb 2001	12 Mar 2001	Halabara forest, Narathivas
1193	Dictyochoeta sp.1	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas
1194	Unidentified Ascomycete Unitunicate	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas
1195	Dinemasporium sp	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas
1196	Dictyochoeta sp.1	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas
1197	Ellisembia sp1	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas
1198	Unidentified sporidesmium-like	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas
1199	Thozetella nivea	Wood	Submerged	15 Feb 2001	13 Mar 2001	Halabara forest, Narathivas

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1200	Jahnula cf granulosa	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1201	Nectria sp.	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1202	Phaeoisaria clematidis	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1203	Annulatascus velatisporus	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1204	Dictyochaeta-like	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1205	Stilbella holubovae	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1206	Annulatascus velatisporus	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1207	Dictyosporium heptasporum	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1208	Acrogenospora sphaerocephala	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1209	Canalisporium elegans	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1210	Canalisporium caribense	Wood	Submerged	22 Feb 2001	14 Mar 2001	Erawan Waterfall, Khanchanaburi
1211	Ellisembia opaca	Wood	Submerged	22 Feb 2001	15 Mar 2001	Erawan Waterfall, Khanchanaburi
1212	Acrodactys globolosa	Wood	Submerged	22 Feb 2001	15 Mar 2001	Erawan Waterfall, Khanchanaburi
1213	Ellisembia opaca	Wood	Submerged	22 Feb 2001	15 Mar 2001	Erawan Waterfall, Khanchanaburi
1214	Sporidesmium sp.1	Wood	Submerged	22 Feb 2001	15 Mar 2001	Erawan Waterfall, Khanchanaburi
1215	Stilbella holubovae	Wood	Submerged	22 Feb 2001	18 Mar 2001	Erawan Waterfall, Khanchanaburi
1216	Phaeoisaria clematidis	Wood	Submerged	22 Feb 2001	18 Mar 2001	Erawan Waterfall, Khanchanaburi
1217	Nectria sp.	Wood	Submerged	22 Feb 2001	18 Mar 2001	Erawan Waterfall, Khanchanaburi
1218	Ellisembia opaca	Wood	Submerged	22 Feb 2001	18 Mar 2001	Erawan Waterfall, Khanchanaburi
1219	Dictyosporium sp.	Wood	Submerged	22 Feb 2001	18 Mar 2001	Erawan Waterfall, Khanchanaburi
1220	Helicomyces resesus	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1221	Ophioceras dolichostomum	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1222	Stilbella holubovae	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1223	Ellisembia opaca	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1224	Phaeoisaria clematidis	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1225	Nectria sp.	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1226	Canalisporium caribense	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1227	Dictyosporium heptasporum	Wood	Submerged	22 Feb 2001	20 Mar 2001	Erawan Waterfall, Khanchanaburi
1228	Ellisembia opaca	Wood	Submerged	22 Feb 2001	21 Mar 2001	Erawan Waterfall, Khanchanaburi
1229	Monotosporella sp.	Wood	Submerged	22 Feb 2001	21 Mar 2001	Erawan Waterfall, Khanchanaburi
1230	Ellisembia opaca	Wood	Submerged	22 Feb 2001	25 Mar 2001	Erawan Waterfall, Khanchanaburi
1231	Helicomyces resesus	Wood	Submerged	22 Feb 2001	25 Mar 2001	Erawan Waterfall, Khanchanaburi
1232	Ophioceras dolichostomum	Wood	Submerged	22 Feb 2001	25 Mar 2001	Erawan Waterfall, Khanchanaburi
1233	Sporoschisma saccardoii	Wood	Submerged	7 Dec 2000	25 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1234	Acrogenospora sphaerocephala	Wood	Submerged	7 Dec 2000	25 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1235	Ellisembia opaca	Wood	Submerged	7 Dec 2000	25 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1236	Hatosarphaea sp l.	Wood	Submerged	7 Dec 2000	25 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1237	Savoryella verrucosa	Wood	Submerged	7 Dec 2000	25 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1238	Caryospora minima	Wood	Submerged	7 Dec 2000	25 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1239	Massarina thalassioidea-like	Wood	Submerged	7 Dec 2000	26 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1240	Savoryella aquatica	Wood	Submerged	7 Dec 2000	26 Mar 2001	Doi Inthanon National Park, Vachirathan Waterfall
1241	Massarina ingoldiana-like	Wood	Submerged	19 Dec 2000	26 Mar 2001	Ko Chang National Park
1242	Aquasphaeria dimorphospora	Wood	Submerged	19 Dec 2000	26 Mar 2001	Ko Chang National Park
1243	Cirrenalia tropicalis	Wood	Submerged	19 Dec 2000	26 Mar 2001	Ko Chang National Park
1244	Spadicoides sp l.	Wood	Submerged	19 Dec 2000	26 Mar 2001	Ko Chang National Park
1245	Ellisembia opaca	Wood	Submerged	19 Dec 2000	26 Mar 2001	Ko Chang National Park
1246	Unidentified Hyphomycete	Wood	Submerged	25 Sep 2000	26 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1247	Canellidium applanatum	Wood	Submerged	25 Sep 2000	26 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1248	Trichocladium cf varicosporoides	Wood	Submerged	25 Sep 2000	26 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1249	Verticillium sp.	Wood	Submerged	25 Sep 2000	26 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1250	Discomycetes	Wood	Submerged	25 Sep 2000	26 Mar 2001	Krang Kra Jan National Park, Pa La Au Waterfall
1251	Ophioceras dolichostomum	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1252	Dictyosporium heptasporum	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1253	Ellisembia opaca	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1254	Berkleasium sp l-like	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1255	Acrodictys globolosa	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1256	Unidentified Hyphomycete	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1257	Phaeoisaria clematidis	Wood	Submerged	26 Feb 2001	4 April 2001	Erawan Waterfall, Khanchanaburi
1258	Canalisporium caribense	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1259	Dictyosporium digitatum	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1260	Canalisporium caribense	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1261	Dictyosporium digitatum	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1262	Ellisembia opaca	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1263	Unidentified Hyphomycete	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1264	Savoryella aquatica	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1265	Acrodictys globolosa	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1266	Ellisembia opaca	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1267	Savoryella aquatica	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1268	Monotosporella sp.	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1269	Ellisembia opaca	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1270	Helicomyces reseus	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1271	Acrodictys globolosa	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1272	Acrogenospora sphaerocephala	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1273	Trichocladium cf varicosporoides	Wood	Submerged	26 Feb 2001	9 April 2001	Erawan Waterfall, Khanchanaburi
1274	Anthostomella aquatica	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1275	Annulatascus velatisporus	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1276	Trichoderma sp.	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1277	Sporidesmium-like	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1278	Unidentified Hyphomycete	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1279	Monotosporella setosa var. macrospor	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1280	Massarina ingoldiana-like	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1281	Thozetella nivea	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1282	Wiesneriomyces javanicus	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1283	Unidentified Ascomycete Unitunicate	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1284	Cancellidium appianatum	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1285	Cancellidium appianatum	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1286	Nawawia filiformis	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1287	Thozetella nivea	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1288	Wiesneriomyces javanicus	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1289	Unidentified Sporidesmium-like	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1290	Massarina ingoldiana-like	Wood	Submerged	15 Feb 2001	10 April 2001	Halabara forest, Narathivas
1291	Unidentified Hyphomycete	Wood	Submerged	28 Mar 2001	11 April 2001	Khao Yai National Park, Sompot Waterfall
1292	Cancellidium appianatum	Wood	Submerged	28 Mar 2001	11 April 2001	Khao Yai National Park, Sompot Waterfall
1293	Unidentified Coelomycetes	Wood	Submerged	28 Mar 2001	11 April 2001	Khao Yai National Park, Sompot Waterfall
1294	Helicomycetes reus	Wood	Submerged	28 Mar 2001	11 April 2001	Khao Yai National Park, Sompot Waterfall
1295	Helicomycetes reus	Wood	Submerged	28 Mar 2001	11 April 2001	Khao Yai National Park, Sompot Waterfall
1296	Spirosphaerae sp1	Wood	Submerged	4 April 2001	9 April 2001	Khao Lung National Park
1297	Helicomycetes reus	Wood	Submerged	4 April 2001	9 April 2001	Khao Lung National Park
1298	Cancellidium appianatum	Wood	Submerged	4 April 2001	9 April 2001	Khao Lung National Park
1299	Ophioceras dolichostomum	Wood	Submerged	4 April 2001	9 April 2001	Khao Lung National Park
1300	Thozetella nivea	Wood	Submerged	4 April 2001	9 April 2001	Khao Lung National Park
1301	Massarina sp3.	Wood	Submerged	4 April 2001	9 April 2001	Khao Lung National Park
1302	Cancellidium appianatum	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
1303	Nawawia filiformis	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
1304	Helicomycetes reus	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
1305	Aquaphila abicans	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
1306	Canalisporium caribense	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
1307	Sporoschisma uniseptatum	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall

SS No#	Fungus Identification	Substrate	Habitat	Collect Date	Date	Site
I308	Cancellidium applanatum	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I309	Dictyosporium digitatum	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I310	Unidentified Sporidesmium-like	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I311	Sporoschisma saccardoi	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I312	Cancellidium applanatum	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I313	Dictyochoeta sp. 1	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I314	Helicomycetes reseau	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I315	Dinemasporium sp.	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I316	Canalisporium caribense	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I317	Sporoschisma uniseptatum	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I318	Dictyochoeta sp. 1	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I319	Thozetella nivea	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I320	Canalisporium caribense	Wood	Submerged	2 April 2001	14 April 2001	Tong Kga Chang Waterfall
I321	Helicomycetes reseau	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I322	Sporoschisma uniseptatum	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I323	Spirosphaera sp. 1	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I324	Dictyochoeta sp. 1	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I325	Canalisporium caribense	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I326	Aquasphaeria dimorphospora	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I327	Sporoschisma uniseptatum	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I328	Phaeoisaria clematidis	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I329	Ellisembia opaca	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I330	Helicomycetes reseau	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I331	Unidentified Sporidesmium-like	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I332	Candelabrum brocciatum	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I333	Massarina bipolaris	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I334	Sporoschisma uniseptatum	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I335	Massarina bipolaris	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I336	Trichoderma sp.	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I337	Massarina bipolaris	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I338	Dinemasporium sp. 1	Wood	Submerged	2 April 2001	17 April 2001	Tong Kga Chang Waterfall
I339	Trichoderma sp.	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
I340	Trichoderma sp.	Erythrophilem teysma	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
I341	Basidiomycete sp.	Erythrophilem teysma	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
I342	Helicomycetes reseau	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
I343	Helicosporium sp	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1344	Thozetella sp?	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
1345	Nectria sp.	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
1346	Unidentified Hyphomycete	Shorea siamensis	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
1347	Trichoderma sp.	Zollingeria dongnaiensis	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
1348	Monodictys sp	Zollingeria dongnaiensis	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
1349	Phaeoisaria clematidis	Zollingeria dongnaiensis	Submerged	2 May 2001	29 May 2001	Peat swamp forest, Sirinthon
1350	Trematospheria sp	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1351	Nectria sp.	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1352	Chaetopsina fulva	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1353	Dictyochoaeta sp.1	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1354	Thozetella nivea	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1355	Halosarpheia sp	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1356	Dinemasporium sp.	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1357	Nectria sp.	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1358	Unidentified Hyphomycete	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1359	Unidentified Hyphomycete	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1360	Stilbella holubovae	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1361	Dictyosporium heptasporum	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1362	Acrodictys globolosa	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1363	Gonytrichum sp.	Azadirachta indica	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1364	Trematospheria sp	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1365	Chaetopsina fulva	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1366	Nectria sp.	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1367	Dinemasporium sp.	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1368	Helicomyces reseau	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1369	Stilbella holubovae	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1370	Dictyochoaeta sp.	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1371	Trematospheria sp	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1372	Nectria sp.	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1373	Chaetopsina fulva	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1374	Dictyochoaeta sp.1	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1375	Thozetella nivea	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1376	Helicomyces reseau	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1377	Phaeoisaria clematidis	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1378	Stilbella holubovae	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1379	Unidentified Hyphomycete	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas

SS No#	Fungus identification	Substrate	Habitat	Collect Date	Date	Site
1380	Helicosporium griseum	Erythrophellum teysm	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1381	Nectria sp. Like ss1357	Shorea obtusa	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1382	Savoryella aquatica	Shorea obtusa	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1383	Nectria sp.	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1384	Trematospheria sp	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1385	Kinotochaeta sp	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1386	Unidentified Hyphomycete	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1387	Nectria sp. Like ss1357	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1388	Chaetopsina fulva	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1389	Sporoschisma saccardoi	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1390	Dinemasporium sp.	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1391	Canalisporium elegans	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1392	Kinotochaeta sp	Shorea roxbordhii	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1393	Trematospheria sp	Shorea siamensis	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1394	Dictyochoeta sp.1	Shorea siamensis	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1395	Thozetella nivea	Shorea siamensis	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas
1396	Nectria sp	Shorea siamensis	Submerged	2 May 2001	29 May 2001	Halabara forest, Narathivas

APPENDIX 2

Appendix 2 Cultures of freshwater fungi in this study

SS No#	Fungus identification	SS No#	Fungus identification
0661	Unidentified Ascomycete	0753	Dactylaria sp.
0665	Jahnula sp.2	0755	Helicomycetes roseus
0667	Aquaphila albicans	0756	Gonytrichum sp.
0668	Candelabrum brocciatum	0757	Dictyochaeta sp.?
0669	Helicomycetes roseus	0758	Unidentified Ascomycete
0671	Gonytrichum sp.?	0759	Unidentified Ascomycete
0673	Basidiomycete sp.	0760	Sigmoidea sp.
0675	Dictyochaeta sp.	0762	Xylomyces sp.
0676	Helicosporium sp.	0764	Anthostomella aquatica
0680	Basidiomycete sp.	0765	Sporoschisma saccardoi
0681	Conidae sp.	0767	Canalisporium elegans
0683	Canalisporium caribense	0768	Annulatuscus velatisporus
0687	Helicoon sp.	0771	Aquaticola sp.1
0689	Brachysporiella cf gayana	0772	Melanocephala ?
0691	Helicosporium sp.	0775	Monodictys sp.1
0694	Unidentified Hyphomycete	0777	Unidentified Ascomycete
0695	Conidia in pycnidia sp.	0778	Unidentified Ascomycete
0696	Wiesneriomyces javanicus	0779	Annulatuscus velatisporus
0697	Sigmoidae sp.	0780	Basidiomycete sp.
0698	Unidentified Hyphomycete	0782	Dactylaria sp.
0699	Unidentified Hyphomycete	0783	Savoryella fusiformis
0700	Trichoderma sp.	0785	Unidentified Hyphomycete
0701	Trichoderma sp.	0786	Unidentified Hyphomycete
0704	Fusarium sp.?	0787	Stilbela sp.
0708	Cudoniella sp.	0789	Canalisporium caribense
0709	Cudoniella sp.	0792	Canalisporium pulchrum
0712	Hymenoscyphus varicosporides	0793	Canalisporium elegans
0714	Cancellidium applanatum	0797	Unidentified Ascomycete
0715	Unidentified Hyphomycete	0798	Melanocephals sp.?
0716	Helicosporium sp.	0799	Massarina bipolaris
0718	Trematosphaeria sp.	0800	Unidentified Hyphomycete
0719	Conida in pycnidia	0801	Dactylaria sp.
0720	Aquaticola sp.2	0802	Dictyosporium digitatum
0721	Chaetospermum camelliae	0803	Sporidesmium sp.
0722.01	Fusarium sp.?	0804	Unidentified Hyphomycete
0722.02	Fusarium sp.?	0805	Sporidesmium sp.?
0722.2	Fusarium sp.?	0806	Sporoschisma uniseptatum
0723	Unidentified Hyphomycete	0807	Xylomyces sp.
0725	Stilbella holubovae	0809	Canalisporium exiguum
0727	Conida in pycnidia	0810	Aquaphila albicans
0729	Sporoschisma saccardoi	0811	Helicosporium sp
0730	Dictyosporium digitatum	0813	Dictyosporium nigroapice
0731	Phaeoisaria clematidis	0814	Unidentified Hyphomycete
0733	Nectria sp	0816	Unidentified Ascomycete
0736	Ellisembia sp.	0817	Unidentified Ascomycete
0737	Dictyochaeta sp.	0818	Trichoderma sp
0738	Helicomycetes roseus	0819	Unidentified Hyphomycete
0739	Discomycetes sp	0820	Acrogenospora sphaerocephala
0740	Sporochisma saccardoi	0821	Unidentified Ascomycete
0741	Melanochaeta hemipsila	0824	Unidentified Ascomycete
0742	Unidentified Ascomycete	0825	Sporidesmium sp.
0743	Unidentified Hyphomycete	0827	Helicomycetes roseus?
0745	Dactylaria sp.	0828	Bombardia sp.
0747	Dictyochaeta gyrosetula	0829	Ophioceras dolichostomum
0748	Savoryella fusiformis	0833	Xylomyces elegans
0749	Canalisporium pulchrum	0835	Unidentified Ascomycete
0750	Dictyochaeta sp	0841	Phaeoisaria clematidis
0752	Ellisembia adscensens	0842	Sporoschisma saccardoi

0844	Unidentified Ascomycete	1012	Dictyochaeta sp.1
0845	Nectria sp.	1013	Monotosporella sp.
0846	Acrogenospora sphaerocephala	1014	Helicomycetes roseus
0851	Sporoschisma saccardoii	1015	Unidentified Hyphomycete
0852	Acrogenospora sphaerocephala	1016	Monotosporella sp.
0854	Penicillium-like	1017	Ophioceras dolichostomum
0855	Unidentified Hyphomycete	1019	Unidentified Ascomycete
0856	Sporidesmium sp.?	1020	Annulatascus velatisporus
0857	Annulatascus velatisporus	1021	Helicosporium sp.
0861	Annulatascus velatisporus	1022	Aquaphila albicans
0862	Helicomycetes roseus	1023	Helicomycetes roseus
0863	Nectria sp.	1025	Monotosporella sp.
0864	Unidentified Hyphomycete	1026	Unidentified Hyphomycete
0865	Aquaphila albicans	1027	Unidentified Hyphomycete
0866	Ellisembia sp.	1028	Unidentified Hyphomycete
0867	Discomycete sp.	1029	Unidentified Hyphomycete
0868	Monotosporella sp.	1030	Unidentified Hyphomycete
0869	Annulatascus velatisporus	1031	Sporochisma mirabile
0873	Ophioceras dolichostomum	1034	Ellisembia sp.
0874	Unidentified Hyphomycete	1035	Sporochisma uniseptatum
0876	Nectria sp.	1037	Phaeoisaria clematidis
0877	Canalisorium elegans	1038	Helicomycetes roseus
0878	Pseudohalonestria sp.	1040	Unidentified Hyphomycete
0879	Helicomycetes roseus	1041	Dictyochaeta sp.
0882	Acrogenospora sphaerocephala	1042	Verticillium sp.
0883	Phaeoisaria clematidis	1043	Unidentified Hyphomycete
0884	Unidentified Hyphomycete	1044	Sporoschisma saccardoii
0888	Kirschsteiniothelia elaterascus	1045	Unidentified Ascomycete
0889	Aquaticola sp.1	1046	Sporochisma mirabile
0895	Canalisorium elegans	1048	Unidentified Hyphomycete
0902	Unidentified Hyphomycete	1051	Annulatascus velatisporus
0908	Massarina sp.	1053	Unidentified Hyphomycete
0910	Dactylaria sp.	1061	Massarina sp.
0911	Dictyosporium sp.	1063	Massarina sp.
0912	Sporoschisma saccardoii	1064	Mamillisphaeria dimorphospora
0913	Unidentified Hyphomycete	1065	Spadicoides sp.
0919	Thozetella nivea	1066	Savoyella aquatica
0926	Dictyochaeta sp.2	1069	Unidentified Ascomycete
0931	Unidentified Hyphomycete	1070	Helminthosporium acaciae
0952	Trichoderma sp.	1077	Xylomyces elegans
0955	Helicomycetes roseus	1078	Cancellidium applanatum
0957	Aquaspharia dimorphospora	1079	Ellisembia opaca
0964	Unidentified Ascomycete	1081	Unidentified Hyphomycete
0967	Massarina sp.	1082	Unidentified Hyphomycete
0968	Sporoschisma uniseptatum	1083	Cirrenalia cf tropicalis
0970	Unidentified Ascomycete	1084	Unidentified Hyphomycete
0973	Brachydesmiella caudata	1085	Helicomycetes roseus
0977	Dictyosporium sp.	1086	Unidentified Ascomycete
0978	Trichocladium linderi	1088	Savoyella cf grandispora
0979	Annulatascus sp.	1093	Melanocephala australiensis
0985	Dictyochaeta sp.1	1094	Cancellidium applanatum
0986	Sporoschisma uniseptatum	1098	Trichoderma sp.
0993	Trichoderma sp.	1100	Unidentified Hyphomycete
0996	Monotosporella sp.	1102	Nawavia sp.
0997	Nawavia filiformis	1106	Monotosporella sp.
0999	Phaeoisaria clematidis	1111	Wiesneriomyces javanicus
1002	Sporoschisma uniseptatum	1118	Cancellidium applanatum
1003	Dictyochaeta sp.1	1121	Dinemasporium likes strigosum
1004	Unidentified Hyphomycete	1122	Nawavia sp.
1005	Nawavia filiformis	1130	Unidentified Hyphomycete
1011	Sporoschisma saccardoii	1132	Nawavia sp.

1138	Elisembia sp	1228	Elisembia opaca
1139	Acrodictys globolosa	1229	Unidentified Hyphomycete
1147	Massarina sp	1230	Elisembia opaca
1148	Cancellidium applanatum	1233	Sporochisma saccardoi
1153	Cancellidium applanatum	1234	Acrogenospora sphaerocephala
1154	Xylomyces chlamydosporis	1238	Caryospora minima
1157	Nawavia sp	1239	Massarina sp
1160	Unidentified Hyphomycete	1241	Massarina sp
1163	Massarina sp	1244	Unidentified Hyphomycete
1164	Cancellidium applanatum	1245	Elisembia opaca
1168	Spadicoides sp	1246	Unidentified Hyphomycete
1169	Massarina sp	1248	Tricladium cf varicosporoides
1172	Monotosporealla sp	1249	Verticillium sp
1173	Canalisporium pallidum	1252	Dictyosporium heptasporum
1175	Unidentified Hyphomycete	1253	Elisembia opaca
1181	Unidentified Hyphomycete	1257	Phaeoisaria clematidis
1183	Sporodesmium sp	1259	Dictyosporium digitatum
1184	Trichoderma sp	1261	Dictyosporium digitatum
1189	Monotosporealla sp	1262	Elisembia opaca
1195	Dinemasporium sp	1266	Unidentified Hyphomycete
1204	Unidentified Hyphomycete	1270	Helicomyces roseus
1205	Stilbella holubovae	1272	Acrogenospora sphaerocephala
1207	Dictyosporium sp	1276	Trichoderma sp
1209	Unidentified Hyphomycete	1277	Sporodesmium sp
1211	Elisembia opaca	1278	Unidentified Hyphomycete
1213	Elisembia opaca	1282	Wiesneriomyces javanicus
1214	Unidentified Hyphomycete	1288	Wiesneriomyces javanicus
1215	Stilbella holubovae	1292	Cancellidium applanatum
1218	Elisembia opaca	1315	Dinemasporium sp. 1
1219	Dictyosporium sp	1329	Elisembia opaca
1222	Stilbella holubovae	1344	Thozetella sp.
1223	Elisembia opaca	1351	Nectria sp.
1226	Canalisporium sp	1358	Unidentified Hyphomycete
1227	Dictyosporium sp	1388	Chaetopsina fulva