### **EDITORIAL AND REFLECTION**

The mycological journal **Studies in Mycology** (SiM) was established by the late CBS director Johann Adolf von Arx in September 1972 and has evolved from a publication with taxonomic monographs with irregular appearance to a professional journal. Deviating from the practice of previous years when the **Studies in Mycology** (SiM) appeared once a year, the editorial board decided in 2005 that:

- ► SiM would in future publish three issues per year;
- ➤ SiM would only accept papers that deal with fungal cultures, and/or fungal DNA, which should be deposited at CBS to be optimally accessible to the scientific community;
- SiM would publish papers by invitation or if a volume or special topic was supported by one of its associate editors;
- ➤ SiM would move to a print-on-demand system that allows to incorporate full colour throughout the journal at reasonable costs, making SiM the first mycological journal to do so:
- ➤ SiM would be effectively linked to MycoBank (www.MycoBank.org), which facilitates the incorporation of additional data and illustrations that are not printed in the journal itself.

This policy has resulted in the publication of an issue focusing on Antarctic fungi and evolution under extreme conditions (De Hoog et al. 2005, Selbmann et al. 2005), an issue focusing on the phylogeny and morphology of Cytospora species and related teleomorphs (Adams et al. 2005), and a third issue focusing on the missing lineages, namely the taxonomy and ecology of sterile endophytic root-associated fungi (Hambleton & Sigler 2005, Hambleton et al. 2005, Mandyam & Jumpponen 2005, Rice & Currah 2005a, b, Sigler & Gibas 2005, Sigler et al. 2005, Summerbell 2005a, b, Zettler et al. 2005, Zijlstra et al. 2005). In the latter issue molecular techniques were indispensable to resolve the missing lineages of sterile root-inhabiting fungi and rootassociated fungi such as Oidiodendron, Meliniomyces, Leohumicola, and Cryptosporiopsis.

## Studies in Mycology: current status and future prospects

In 2006 we successfully continued with the policy of publishing three issues per year, but in accordance to the *open access* policy of the *Royal Dutch Academy of Arts and Sciences*, *SiM* chose to make its papers freely available, though hard copies will still be sold via its online *CBS WebShop*. Furthermore, *SiM* sees itself as developing as a high-impact journal focusing on monographs and revisions and, under special circumstances, introducing specific topical issues. In this regard, *SiM* strives to publish monographs and books formerly published in the *Mycological Papers* series (CABI), or the *Mycologia Memoirs* series of the *Mycological Society of America*. A high content of well

founded taxonomic novelties is criterion for acceptance. Besides intensive in-house editorial treatment, each issue is reviewed by two external referees.

Effectively *SiM* should eventually become a journal that is seamlessly linked to regular online mycological journals such as *Mycological Research* and *Mycologia*, as well as *MycoBank*, *GenBank*, the *CBS culture collection*, and online herbaria, to name but a few.

February 2007 saw the first issues of *SiM* appearing online via *HighWire Press*. During 2007, we shall apply for inclusion in *PubMed*, which would further assist us in our goal to freely distribute published mycological literature, and to help promote mycology internationally.

### Special issues of 2006

# SIM 54: Taxonomy and Pathology of *Togninia* (*Diaporthales*) and its *Phaeoacremonium* anamorphs

Since the genus *Phaeoacremonium* W. Gams, Crous & M.J. Wingfield was described in 1996, the genus has been conclusively linked to phaeohyphomycosis of humans, as well as Petri disease and brown wood streaking of grapevines, a disease complex that is the topic of biennial meetings by the International Council of Grapevine Trunk Diseases. Phaeoacremonium was shown to comprise anamorphs of the genus Togninia (Diaporthales, Togniniaceae); it was monographed by Mostert et al. (2006), who treated 10 Togninia and 22 Phaeoacremonium species. Furthermore, several new species of Togninia and Phaeoacremonium were introduced, along with a polyphasic online identification key. The mating strategy of several Togninia species was investigated, showing several taxa to be homothallic, while others had a biallelic heterothallic mating system. The *Togniniaceae* was shown to be part of the Diaporthales, while the Calosphaeriales and the Pleurostomataceae clustered in the Calosphaeriales.

### SIM 55: 100 Years of Fungal Biodiversity in southern Africa

The centenary of the National Collection of Fungi in South Africa was the incentive for a special celebratory volume of *SiM*, focusing on some current fungal research activities underway in southern Africa. Furthermore, it also led to the digitalization of "Doidge 1950" [The South African Fungi and Lichens to the end of 1945, Bothalia 5: 1–1094], which made all these old fungal records available online. This set the stage for papers treating the history of the National Collection of Fungi (Rong & Baxter 2006), and another one speculating about the number of fungal species that exist at the tip of Africa (Crous et al. 2006d). Several disease and saprobic fungal complexes on *Eucalyptus* trees were

treated (Cortinas et al. 2006, Crous et al. 2006e-g, de Beer et al. 2006, Gryzenhout et al. 2006, Hunter et al. 2006). Indigenous fungi on rooibos (Aspalathus linearis) (Van Rensburg et al. 2006), Restionaceae (Lee et al. 2006), Proteaceae (Roets et al. 2006), Myrtales (Nakabonge et al. 2006), and Zizyphus (Maier et al. 2006), also received attention, along with soilinhabiting genera such as Cylindrocladium (Crous et al. 2006b), and Cylindrocarpon (Halleen et al. 2006). Furthermore, Zhou et al. (2006) and Zipfel et al. (2006) treated the genus *Ophiostoma*, and reinstated Grossmania as distinct from Ceratocystiopsis. Two major Mycosphaerella disease complexes were treated by Crous et al. (2006a, c), showing that one species of Pseudocercospora griseola with two formae was associated with angular leaf spot of bean, but several species of Cercospora were associated with grey leaf spot of maize.

## SIM 56: *Hypocrea* and *Trichoderma* studies marking the 90<sup>th</sup> birthday of Joan M. Dingley

A special issue of SiM was dedicated to Joan M. Dingley on the occasion of her 90th birthday. Joan Dingley received international status as mycologist for her excellent monographic work dealing with the Hypocreales of New Zealand. This special issue consists of four papers focusing on Trichoderma and their Hypocrea teleomorphs (Jaklitsch et al. 2006, Overton et al. 2006a, b, Samuels et al. 2006). Overton et al. (2006a, b) dealt with some conspicuous, mainly fungicolous Hypocrea species which have inconspicuous anamorphs. Samuels et al. (2006) (T. koningii clade) and Jaklitsch et al. 2006 (T. viride clade) dealt with some of the commonest, but very complex species, in which the Trichoderma anamorph outweighs the teleomorph in ecological success and differentiation. These groups include some important biocontrol agents.

> Robert A Samson Executive Editor samson@cbs.knaw.nl

#### REFERENCES

- Adams GC, Wingfield MJ, Common R, Roux J (2005). Phylogenetic relationships and morphology of *Cytospora* species and related teleomorphs (*Ascomycota*, *Diaporthales*, *Valsaceae*) from *Eucalyptus*. *Studies in Mycology* **52**: 1–142.
- Beer ZW de, Begerow D, Bauer R, Pegg GS, Crous PW, Wingfield MJ (2006). Phylogeny of the *Quambalariaceae* fam. nov., including important *Eucalyptus* pathogens in South Africa and Australia. *Studies in Mycology* **55**: 289–298.
- Cortinas MN, Crous PW, Wingfield BD, Wingfield MJ (2006). Multi-gene phylogenies and phenotypic characters distinguish two species within the *Colletogloeopsis zuluensis* complex associated with *Eucalyptus* stem cankers. *Studies in Mycology* **55**: 133–146.
- Crous PW, Groenewald JZ, Groenewald M, Caldwell P, Braun U, Harrington TC (2006a). Species of *Cercospora* associated with grey leaf spot of maize. *Studies in Mycology* **55**: 189–197.

- Crous PW, Groenewald JZ, Risède J-M, Simoneau P, Hyde KD (2006b). *Calonectria* species and their *Cylindrocladium* anamorphs: species with clavate vesicles. *Studies in Mycology* **55**: 213–226.
- Crous PW, Liebenberg MM, Braun U, Groenewald JZ (2006c). Reevaluating the taxonomic status of *Phaeoisariopsis griseola*, the causal agent of angular leaf spot of bean. *Studies in Mycology* **55**: 163–173.
- Crous PW, Rong IH, Wood A, Lee S, Glen H, Botha W, Slippers B, Beer WZ de, Wingfield MJ, Hawksworth DL (2006d). How many species of fungi are there at the tip of Africa? *Studies in Mycology* **55**: 13–33.
- Crous PW, Slippers B, Wingfield MJ, Rheeder J, Marasas WFO, Philips AJL, Alves A, Burgess T, Barber P, Groenewald JZ (2006e). Phylogenetic lineages in the *Botryosphaeriaceae*. *Studies in Mycology* **55**: 235–253.
- Crous PW, Verkley GJM, Groenewald JZ (2006f). *Eucalyptus* microfungi known from culture. 1. *Cladoriella* and *Fulvoflamma* genera nova, with notes on some other poorly known taxa. *Studies in Mycology* **55**: 53–63.
- Crous PW, Wingfield MJ, Mansilla JP, Alfenas AC, Groenewald JZ (2006g). Phylogenetic reassessment of *Mycosphaerella* spp. and their anamorphs occurring on *Eucalyptus*. II. *Studies in Mycology* **55**: 99–131.
- Gryzenhout M, Myburg H, Hodges CS, Wingfield BD, Wingfield MJ (2006). *Microthia, Holocryphia* and *Ursicollum*, three new genera on *Eucalyptus* and *Coccoloba* for fungi previously known as *Cryphonectria*. *Studies in Mycology* **55**: 35–52.
- Halleen F, Schroers H-J, Groenewald JZ, Rego C, Oliveira H, Crous PW (2006). *Neonectria liriodendri* sp. nov., the main causal agent of black foot disease of grapevines. *Studies in Mycology* **55**: 227–234.
- Hambleton S, Nickerson NL, Seifert KA (2005). Leohumicola, a new genus of heat-resistant hyphomycetes. Studies in Mycology 53: 29–52.
- Hambleton S, Sigler L (2005). *Meliniomyces*, a new anamorph genus for root-associated fungi with phylogenetic affinities to *Rhizoscyphus ericae* (≡*Hymenoscyphus ericae*), *Leotiomycetes*. *Studies in Mycology* **53**: 1–27.
- Hoog GS de, Göttlich E, Platas G, Genilloud O, Leotta G and Brummelen J van (2004). Evolution, taxonomy and ecology of the genus *Thelebolus* in Antarctica. *Studies in Mycology* 51: 33–76.
- Hunter GC, Wingfield BD, Crous PW, Wingfield MJ (2006). A multigene phylogeny for species of *Mycosphaerella* occurring on *Eucalyptus* leaves. *Studies in Mycology* **55**: 147–161.
- Jaklitsch WM, Samuels GJ, Dodd SL, Lu B-S, Druzhinina IS (2006). Hypocrea rufa/Trichoderma viride: a reassessment, and description of five closely related species with and without warted conidia. Studies in Mycology 56: 135–177. doi:10.3114/ sim.2006.56.04
- Lee S, Crous PW, Wingfield MJ (2006). Pestalotioid fungi from Restionaceae in the Cape Floral Kingdom. Studies in Mycology 55: 175–187.
- Maier W, Khoza T, Harmse N, Wingfield BD, Wingfield MJ (2006). A disease epidemic on *Zizyphus mucronata* in the Kruger National Park caused by *Coniodictyum chevalieri*. *Studies in Mycology* **55**: 279–288.
- Mandyam K, Jumpponen A (2005). Seeking the elusive function of the root-colonising dark septate endophytic fungi. *Studies in Mycology* **53**: 173–189.
- Mostert L, Groenewald JZ, Summerbell RC, Gams W, Crous PW (2006). Taxonomy and Pathology of *Togninia* (*Diaporthales*) and its *Phaeoacremonium* Anamorphs. *Studies in Mycology* **54**: 1–113.
- Nakabonge G, Gryzenhout M, Roux J, Wingfield BD, Wingfield MJ (2006). *Celoporthe dispersa* gen. et sp. nov. from native *Myrtales* in South Africa. *Studies in Mycology* **55**: 255–267.
- Overton BE, Stewart EL, Geiser DM (2006a). Taxonomy and phylogenetic relationships of nine species of *Hypocrea* with anamorphs assignable to *Trichoderma* section *Hypocreanum*. *Studies in Mycology* **56**: 39–65. doi:10.3114/sim.2006.56.02
- Overton BE, Stewart EL, Geiser DM, Jaklitsch WM (2006b). Systematics of *Hypocrea citrina* and related taxa. *Studies in Mycology* **56**: 1–38. doi:10.3114/sim.2006.56.01
- Rensburg JCJ van, Lamprecht SC, Groenewald JZ, Castlebury LA, Crous PW (2006). Characterisation of *Phomopsis* spp. associated with die-back of rooibos (*Aspalathus linearis*) in South Africa. *Studies in Mycology* **55**: 65–74.

- Rice AV, Currah RS (2005a). Profiles from Biolog FF plates and morphological characteristics support the recognition of *Oidiodendron fimicola* sp. nov. *Studies in Mycology* **53**: 75–82.
- Rice AV, Currah RS (2005b). *Oidiodendron:* A survey of the named species and related anamorphs of *Myxotrichum*. *Studies in Mycology* **53**: 83–120.
- Roets F, Beer ZW de, Dreyer LL, Zipfel R, Crous PW, Wingfield MJ (2006). Multi-gene phylogeny for *Ophiostoma* spp. reveals two new species from *Protea* infructescences. *Studies in Mycology* **55**: 199–212.
- Rong IH, Baxter AP (2006). The South African National Collection of Fungi: celebrating a centenary 1905-2005. *Studies in Mycology* **55**: 1–12.
- Samuels GJ, Dodd SL, Lu B-S, Petrini O, Schroers H-J, Druzhinina IS (2006). The *Trichoderma koningii* aggregate species. *Studies in Mycology* **56**: 67–133. doi:10.3114/sim.2006.56.03
- Selbmann L, Hoog GS de, Mazzaglia A, Friedmann EI and Onofri S (2005). Fungi at the edge of life: cryptoendolithic black fungi from Antarctic desert. *Studies in Mycology* **51**: 1–32.
- Sigler L, Allan T, Lim SR, Berch S, Berbee M (2005). Two new *Cryptosporiopsis* species from roots of ericaceous hosts in western North America. *Studies in Mycology* **53**: 53–62.
- Sigler L, Gibas CFC (2005). Utility of a cultural method for identification of the ericoid mycobiont Oidiodendron maius confirmed by ITS sequence analysis. *Studies in Mycology* **53**: 63–74.
- Summerbell RC (2005a). Root endophyte and mycorrhizosphere fungi of black spruce, *Picea mariana*, in a boreal forest habitat: influence of site factors on fungal distributions. *Studies in Mycology* **53**: 121–145.
- Summerbell RC (2005b). From Lamarckian fertilizers to fungal castles: recapturing the pre-1985 literature on endophytic and saprotrophic fungi associated with ectomycorrhizal root systems. *Studies in Mycology* **53**: 191–256.
- Zettler LW, Piskin KA, Stewart SL, Hartsock JJ, Bowles ML, Bell TJ (2005). Protocorm mycobionts of the Federally threatened eastern prairie fringed orchid, *Platanthera leucophaea* (Nutt.) Lindley, and a technique to prompt leaf elongation in seedlings. *Studies in Mycology* **53**: 163–171.
- Zhou X, Beer WZ de, Wingfield MJ (2006). DNA sequence comparisons of *Ophiostoma* spp., including *Ophiostoma aurorae* sp. nov., associated with pine bark beetles in South Africa. *Studies in Mycology* **55**: 269–277.
- Zijlstra JD, Hof P van 't, Baar J, Verkley GJM, Summerbell RC, Paradi I, Braakhekke WG, Berendse F (2005). Diversity of symbiotic root endophytes of the *Helotiales* in ericaceous plants and the grass, *Deschampsia flexuosa*. *Studies in Mycology* **53**: 147–162.
- Zipfel RD, Beer W de, Jacobs K, Wingfield BD, Wingfield MJ (2006). Multi-gene phylogenies define *Ceratocystiopsis* and *Grosmannia* distinct from *Ophiostoma*. *Studies in Mycology* **55**: 75–97.