

Financial report for the **Studienstiftung Mykologie**.

PhD student: Carlos Alberto López Quintero.

The foundation 'Studienstiftung Mykologie' deposited the sum of €2300 at Alvaro J Duque's bank account in March 2009. This grant allowed the grantee to finish some of the projects he had started before during 10 months (March till December 2009).

This money was used by the PhD student to elaborate the data he collected before on 1. Mushrooms from various Colombian Amazon forests, 2. To continue the biodiversity assessment of microfungi from litter bags by analyzing ITS sequences, and 3. To prepare a manuscript on new *Trichoderma* species resulting from this barcoding study.

- From March to September 2009 the PhD student worked on the identification of 858 collections of macromycetes collected in Colombian Amazon. At the end of the elapsed time 404 macromycetes species were identified. The remaining will possibly represent new species, and are listed here as morphospecies. Further molecular work is needed to verify this all, but this is certainly beyond the scope of this work.
- From May until the present the following manuscripts have been prepared:
  1. New species of *Trichoderma* isolated from litter during different stages of decomposition. This manuscript that will be co-authored by Irina Druzhinina (Vienna), the world specialist on the taxonomy of *Trichoderma*, and will contain all ITS sequences and biodiversity of *Trichoderma* species, including the description of four new species.
  2. Diversity and abundance of Macromycetes in different types of forest in Colombian Amazon. This manuscript is in a final stage and will be co-authored by Gerben Straatsma who was involved in the analysis of the biodiversity data. (See also attached list of Macrofungal species identified)
  3. Microfungal diversity involved in litter decomposition from different types of forests in the Colombian Amazon. This work will contain a full set of ITS sequences of fungal biodiversity of microfungi isolated from litter bags. The ITS sequences have all been finalized and the data will be included in a manuscript that is already around for quite some time, but that needs to be updated by the new molecular data obtained from forests in different stages of regeneration and from different geographical regions.

4. Putative ectomycorrhizal fungi from a Dipterocarp forest located in the Colombian Amazon. This work is being performed in close collaboration with Mrs Aida Vasco, a PhD student who is currently working as a sandwich student at CBS. The molecular phylogeny of a ten putative ectomycorrhizal species will be studied and compared with existing data. This work is still ongoing, but we think it can be finalized later this year.

List of papers in progress:

- 1- Macrofungal diversity and abundance in Colombian Amazon forests under different conditions of disturbance. (Authors: C.A. López-Q., G. Straatsma, A.E. Franco-M., T. Boekhout)
- 2- Four new species of *Trichoderma* from the Colombian Amazon area. (Authors: C. A. López-Q., I. Druzhinina, W. Gams, B. Theelen, A. E. Franco-M. and T. Boekhout)
- 3- Microfungal diversity in leaves decomposition in terra firme and flooding forests in Colombian Amazonian. (Authors: Carlos A. López-Q, Teun Boekhout, Ana E. Franco-M, Álvaro Javier Duque)
- 4- Ectomycorrhizal fungi from in a Dipterocarp forest located in the Colombian Amazon. (Authors: T. Boekhout, C A Lopez-Q., Aida M Vasco-P and Ana E. Franco-M.)

One further manuscript describing 5 new species of *Penicillium* has been submitted to *Int. J. Syst. Evol. Microbiol.* and is currently under review. This has been realized without funds of the Studienstiftung.

Carlos Alberto López Quintero

PhD student CBS & UVA-IBED.

**List of Macromycetes identified from March to September of 2009 with support of the Studienstiftung Mykologie)**

List of all macrofungal species registered from all plots studied in Colombian Amazonia.

Columns showing the total number of fruiting bodies founded in each plot.

Names are in accordance with <http://www.indexfungorum.org/Names/Names.asp> (December 2009)

Site	Araracuara							Amacayacu			
	38y	26y	19y	14y	1y	M.F.Ara	P.R	FPF	MF	MFIS	RF
Agaricus sp1											2
Agaricus sp2								5			1
Agaricus sp3											1
Agrocybe sp1											2
Amanita sp 1							6				
Amanita sp 2							5				
Amauroderma calcigenum (Berk.) Torrend	5										
Amauroderma omphalodes (Berk.) Torrend				2			4				
Amauroderma sp 1				3			1				
Amauroderma sp 2	1		2		8	3					
Amauroderma sp 3		1	1			2					
Amauroderma sprucei (Pat.) Torrend			1								
Antrodiella sp		80									
Ascomycete sp1								12			
Auricularia delicata (Fr.) Henn.					32	7		9		1	
Auricularia fuscosuccinea (Mont.) Henn.					4			60	5	4	12
Auricularia mesenterica (Dicks.) Pers.								25	5		9
Auricularia polytricha (Mont.) Sacc.											
Auricularia sp 1				6							
Austroboletus sp nov							11				
Boletus sp 1							7				
Boletus sp 2							4				
Calvatia sp1								2			
Camarophyllus aff. buccinulus (Speg.) Pegler											2
Camarophyllus niveicolor (Murrill) Singer								8			
Camarophyllus sp1			2				1				
Camillea lepieurii Mont.			12								
Caripia montagnei (Berk.) Kuntze						12	5				
cf. Marasmiellus	4			4							
cf. Physocystidium sp	2										
Chaetocalathus aff. liliputianus (Mont.) Singer									8		





Gymnopus aff. dryophilus (Bull.) Murrill		3			5			
Gymnopus jamaicensis Murrill							3	
Gymnopus sp 1	5							
Gymnopus sp 2					10			
Gymnopus sp 3			1					
Gymnopus sp 4			4					
Gymnopus sp 5								2
Gymnopus sp 6						4	1	
Gymnopus sp 7					20			
Hexagonia aff. glabra (P. Beauv.) Ryvarden						9		
Hexagonia hydnoides (Sw.) M. Fidalgo	14		12					
Hexagonia sp.								5
Hexagonia tenuis (Hook.) Fr.			10					
Hexagonia variegata Berk.								14
Hohenbuehelia nigra (Schwein.) Singer			##					23
Hohenbuehelia sp1		2						
Hydnellum sp			1					
Hydnochaete sp						2		
Hydnopolyporus palmatus (Hook.) O. Fidalgo						2		
Hydropus nigrita		1						
Hydropus semimarginellus Singer		13						
Hydropus sp 1							7	
Hydropus sp 2	7							
Hydropus sp nov??		42						
Hygroaster nodulisporus (Dennis) Singer			1		30			1
Hygrocybe batistae Singer						27		
Hygrocybe conica (Schaeff.) P. Kumm.	1							
Hygrocybe miniata (Fr.) P. Kumm.					3	1		4
Hygrocybe occidentalis var. occidentalis (Dennis) Pegler			3		7			
Hygrocybe sp 1			12	28	7			
Hygrocybe sp 2		4						
Hygrocybe sp 3						2		
Hygrocybe sp 4			2					
Hygrocybe sp 5	5	42		2				
Hygrocybe subcaespitosa (Murrill) Lodge & Pegler								1
Hygrocybe trinitensis (Dennis) Pegler					4			
Hygrophorus sp 1			3		34			
Hygrophorus sp 2		3						
Hymenochaetaceae	7							
Hymenochaete damicornis (Link) Lév.			1	1	1			
Hymenochaete sp					7			
Inopilus aff. dennisii (E. Horak) Pegler					11			
Isaria sp1								
Janauaria amazonica Singer						3	1	1 4
Lactarius cf. castaneibadius Pegler					1			

Lactarius sp 1				4			
Lactarius venezuelanus Dennis			1				
Lactocollybia epia (Berk. & Broome) Pegler							6
Laetiporus sulphureus (Bull.) Murrill			1				
Lentinus concavus (Berk.) Comer			30				
Lentinus crinitus (L.) Fr.		50					17
Lentinus scleropus (Pers.) Fr.	2		4	8			
Lentinus sp 1			##				
Lentinus sp 2							
Lentinus sp 3			2				
Lentinus strigellus Berk.			18				
Lentinus strigosus (Schwein.) Fr.			##				
Lentinus swartzii Berk.			80				
Lentinus velutinus Fr.	5		14				
Lenzites aff. elegans (Spreng.) Pat.							11
Lenzites betulina (L.) Fr.			23				
Lenzites elegans (Spreng.) Pat.			36				
Lepiota aff. erythrostickta (Berk. & Broome) Sacc.							2
Lepiota erythrostickta (Berk. & Broome) Sacc.							6
Lepiota hemisclera (Berk. & M.A. Curtis) Sacc.							5
Lepiota sp 1					1	1	19
Lepiota sp 2			1	##			
Lepiota sp 3	1	1			1		
Lepiota sp 4						3	3
Lepiota sp 5		2	2				52
Lepiota sp 6	1				3		
Lepiota sp 7						1	3
Lepiotaceae	1						
Leptonia aff. naranjana (Dennis) Pegler			10				
Leptonia sp 1					2		
Leptonia sp 2					6		
Leucoagaricus sp 1						2	
Leucocoprinus birnbaumii (Corda) Singer						3	
Leucocoprinus sp 1							4
Leucocoprinus sp 2							3
Leucocoprinus sulphurellus Pegler	1						
Lycoperdaceae sp1						1	
Lycoperdon sp 1							4
Lycoperdon sp 2							2
Macrocystidia sp					3	1	
Macrolepiota sp 1							
Marasmiellus aff. inconspicuus Murrill							29
Marasmiellus aff. troyanus (Murrill) Dennis			56			13	
Marasmiellus cf. distantifolius (Murrill) Singer			360			3	

Marasmiellus sp 1	40								
Marasmiellus sp 2									
Marasmiellus sp 3							1		
Marasmiellus sp 4							15		
Marasmiellus sp 5		19						17	
Marasmiellus sp 6	15	2	5	1			6	3	83
Marasmiellus sp 7						1			13
Marasmiellus volvatus Singer								26	
Marasmius aff panerythrus Singer							15		
Marasmius aff. splitgerberi (Mont.) Singer							2		
Marasmius atrorubens Berk.	22								
Marasmius cf. berteroi var. major Singer		3							
Marasmius cf. bezerrae Singer								6	11
Marasmius cf. echinatus Singer									8
Marasmius cf. napoensis Singer			25						
Marasmius cf. robertsonii Singer								1	
Marasmius cf. spiculosus Singer									3
Marasmius cladophyllus Berk.								4	5
Marasmius cohaerens (Alb. & Schwein.) Cooke & Quél.	24								
Marasmius cohortalis Berk.									3
Marasmius flammans Berk.	8								
Marasmius haedinus Berk.	61	1	12	5	57	73			
Marasmius haematocephalus (Mont.) Fr.			10	23					14
Marasmius helvolus Berk.			2						
Marasmius hypophaeus Berk. & M.A. Curtis									4
Marasmius jalapensis Murrill								6	3
Marasmius leoninus Berk.		10						1	2
Marasmius napoensis Singer		1							9
Marasmius panerythrus Singer		19							
Marasmius schultesii Singer							18		
Marasmius setulosifolius Singer			7						
Marasmius sp 1	1		20		11	67			
Marasmius sp 10								7	
Marasmius sp 11			11					1	3
Marasmius sp 12								1	6
Marasmius sp 13	4	8							
Marasmius sp 14							3		
Marasmius sp 15	6	3							
Marasmius sp 16				6					
Marasmius sp 17	12			1					
Marasmius sp 18							4		
Marasmius sp 19	2								
Marasmius sp 2		18			1			4	2
Marasmius sp 20					1				
Marasmius sp 3	70		1		1				
Marasmius sp 4	13	2	2				42		2



Marasmius sp 5					1		6
Marasmius sp 6	23	2			2		
Marasmius sp 7	10						
Marasmius sp 8					1		
Marasmius sp 9					4		
Marasmius splitgerberi (Mont.) Singer				186			
Marasmius tageticolor Berk.		2	1	40			
Metacordyceps chlamydosporia (H.C. Evans) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora		2					
Microporellus obovatus (Jungh.) Ryvarden	1			9	13		
Morganella sp.				1			
Mycena aff. tessellata (Mont.) Dennis							6
Mycena holoporphyra (Berk. & M.A. Curtis) Singer					1		1
Mycena sp 1		2					
Mycena sp 2	130						
Mycena sp 3					4		
Nolanea pseudopapillata Pegler					6		
Nolanea sp 1	2						
Omphalina sp 1			3				
Omphalina sp 2				57			
Oudemansiella canarii (Jungh.) Höhn.			1		1		3
Panus tephroleucus (Mont.) T.W. May & A.E. Wood			##				
Peziza sp 1						45	
Phaeocollybia sp 1				13			
Phaeocollybia sp 1				20			
Phallus indusiatus Vent.							5
Phellinus pachyphloeus (Pat.) Pat.			1				
Phellinus sp1	100	100					
Phellodon fibulatus K.A. Harrison	3	1	7	3			
Phillipsia domingensis? Berk.						2	
Phlebopus braunii (Bres.) Heinem.			13				
Pholiota cf. orinocensis Pat. & Gaillard							2
Pholiota sp							1
Phylacia poculiformis (Mont.) Mont.					157		
Phylloporia spathulata (Hook.) Ryvarden							10
Physalacria sp1					3		
Platyglea sp							15
Pleurotus flabellatus (Berk. & Broome) Sacc.			2				
Pleurotus sp 1		132					18
Pleurotus sp 2						6	
Pluteus cf. harrisii Murrill					2		
Pluteus sp 1				1		1	
Pluteus sp 2			1				
Podoscypha aff. brasiliensis D.A. Reid		1			5	6	86
Podoscypha brasiliensis D.A. Reid			3				4





Xylaria anisopleura (Mont.) Fr.					1		
Xylaria ianthinovelutina (Mont.) Fr.						6	
Xylaria juruensis Henn.						23	
Xylaria obovata (Berk.) Berk.			23				
Xylaria pallida Berk. & Cooke							6
Xylaria polymorpha (Pers.) Grev.				22		##	7
Xylaria scruposa (Fr.) Berk.						2	
Xylaria sp 1	11	6	55		25		1
Xylaria sp 2			45		27		33
Xylaria sp 3						1	
Xylaria sp 4		12					
Xylaria sp 5					7		
Xylaria sp 6					4		
Xylaria sp 7			60				
Xylaria telfairii (Berk.) Sacc.						19	6