

IBBS World



Newsletter of the International Biodeterioration & Biodegradation Society
Issue 12, June 2007. www.biodeterioration.org

Meetings Update

Biodeterioration of wood and wood products
August 26 - 29 2007 Riga, Latvia

The programme for this exciting and focused meeting can be found on the IBBS website, www.biodeterioration.org, and also on the conference website at www.kki.lv/bwwp2007/. A summary is given on the back page of this newsletter.

Oral and poster presentations will cover the following topics:

- Biodeterioration of wood by fungi and bacteria
- Wood biodeterioration - cultural heritage
- Structure and micromorphology of decayed wood
- Biotechnological applications

The Meeting organiser, Ilze Irbe, Latvian State Institute of Wood Chemistry, promises a friendly but informative and international meeting, and members are encouraged to register, and to promote the event to colleagues.

Editor's Notes

Greetings from a rather damp England! I wish there was more evidence of 'summer' here as I write the summer newsletter. We were delighted with the success of the Manchester meeting, which attracted over 80 delegates from academia and industry, and we now look forward to our next meeting in Latvia in August, and then to IBBS-14 in Sicily, 6 - 11 October 2008.

This newsletter is about people as well as meetings. We were pleased to be able to acknowledge our Honorary Fellows in Manchester. Four of the six attended the conference, and received framed certificates to commemorate their contribution to the Society. Many members also attended Glyn Morton's Emeritus Professor Lecture at the University of Central Lancashire in Preston, which was delivered in typical riveting and charismatic style, not only reminding us how to do it, but also of the very significant contribution Glyn has made to research in biodeterioration, and its importance to industry. Our next AGM should take place later in the year, and I would like to remind interested members to stand for Council as well as to contribute to Society activities - the website, newsletter, journal and conferences. Speaking of Council, member Lawrence Staniforth was unable to attend the meeting due to the arrival of, potentially our youngest honorary member, Thomas (who says hi below!) Best wishes, Jo.
j.verran@mmu.ac.uk

IBBS-14, 2008

TAORMINA, ME (ITALY) 6-11 October 2008

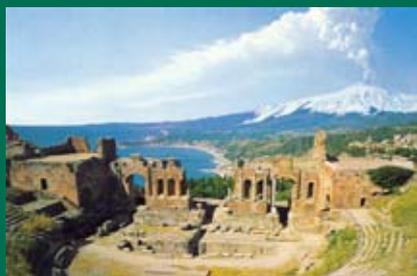
www.ibbs-14.org

also www.biodeterioration.org, under meetings and events.

Pre-registration now open

Organiser, Prof Clara Urzi, University of Messina, Italy

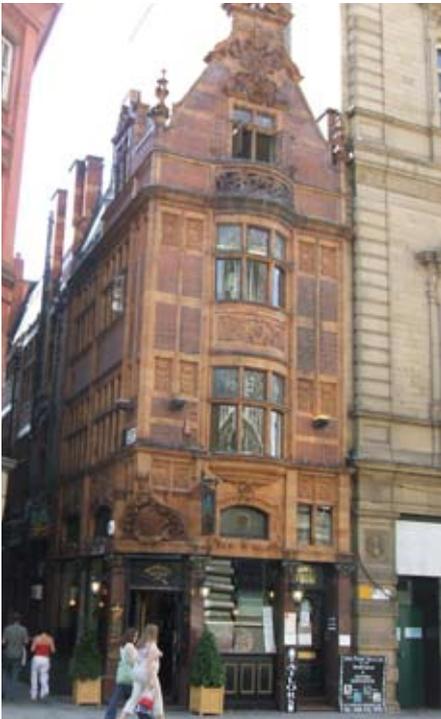
More information in next newsletter!



Biofilms and Biofouling of Interest to Industry IBBS 2007 Spring Meeting, Manchester

Over 80 delegates attended the one and a half day meeting at Manchester Metropolitan University, which focused on Biofilms and Biofouling of Interest to Industry. The interest of industry in this meeting was evident from the significant sponsorship which we received, and also by the number of delegates - approximately half were from industry and half from academia. Several industry representatives had stopped at Manchester en route for the IBRG meeting in Kendal, Lake District.

The conference had been designed to provide a glimpse into fundamental biofilm research, and its underpinning of work addressing control and prevention. Several posters were presented, illustrating relevant postgraduate research activity. Excellent state-of-the-art presentations included an overview from Prof HansCurt Flemming, case studies from industry, and offered papers on specific approaches to contro. Dr Kathryn Whitehead described some of the new analytical methods that are available to help characterise biofilms and the substrata to which cells are attached. Prof Peter Gilbert gave an excellent account of his research into biofilm resistance, explaining how his ideas changed and developed over time. Emerita Professor, Mary-Lou Florian, from the United States, related her observations on biofilms and asked the conference to consider describing the biofilm matrix as an organelle. Discussion continued over into social events. Prof Glyn Morton chaired the first and last sessions, and his contribution to the society and biodeterioration was acknowledged at the end of the conference by Malcolm Greenhalgh, a long standing friend, fellow marathon runner and bar propper-upper. HansCurt Flemming presented Glyn with a gift and also referred to the influence and inspiration which Glyn had always provided.



Mr Thomas' chophouse was under scaffolding at the meeting - this is what it normally looks like!

The conference dinner was held at Mr Thomas' Chophouse, a famous Manchester restaurant, which offered the best in English cuisine -steak and kidney pudding, corned beef hash or fish and chips and mushy peas! It went down very well indeed. Honorary fellows had been invited to attend the conference and dinner. Diane Band, Judy Kinderlerer, Christine Gaylarde and Brian Flannigan were able to attend, and were presented with certificates commemorating their contributions to the activities of the Society.

Many thanks to Malcolm Greenhalgh for the initial idea for the meeting, and to the local organising committee, Jo Verran, John Gillatt and Brian McCarthy.



Jo Verran presents Chris Gaylarde with her Honorary Fellow certificate



Judy Kinderlerer, Joan Smith, Glyn Morton and his wife, and Chris Gaylarde.

Nan Onions: Obituary

The memorial service for Nan Onions was held on Saturday 16th JUNE at St. Anne's Church, Kew Green, at 12 Noon, conducted by the Archdeacon of Northampton, The Venerable Christine Allsopp.

Dr Agnes (Nan) Onions died 22 February 2007 losing the battle with cancer. She retired from CABI, International Mycological Institute on 1st December 1987 and moved to Dunbar to enjoy her retirement. She had joined the then Commonwealth Mycological Institute (CMI) in 1953 from the London School of Hygiene and Tropical Medicine where she attained her PhD with George Smith with a thesis entitled A taxonomic study of the genus *Paecilomyces* and its perfect stage *Byssoschlamys*. In 1955, Nan began work in the CMI culture collection; in 1958 she married and moved to Malaya for a year and on her return to the UK worked at University College, London where she studied cryopreservation with Professor Parkes.

It was in her second spell at CMI, which began in 1964, that she took on the role of specialist in the taxonomy of *Aspergillus*, *Paecilomyces*, *Penicillium* and related genera and added the role of Curator of the culture collection in 1967. Nan was a pioneer; she introduced freeze-drying in 1966 and cryopreservation using liquid nitrogen in 1968 for the preservation of fungi and bacteria. Nan became an International authority in *Aspergillus* and *Penicillium* publishing articles, papers and book chapters. Nan was President of the UK Federation for Culture Collections and was secretary to the World Federation for Culture Collections from 1980 to 1987.

Nan was very particularly interested in applied mycology continuing the work started by Major Dade in industrial mycology focussing on spoilage problems. Nan was a very active member of the Biodeterioration Society and the International Biodeterioration Research Group. In 1964 she worked with fungi on coal mine conveyor belts, she recalls in *IMI; Retrospect and Prospect* (Aitchison & Hawksworth, 1993) that she "somehow survived this smelly ordeal". She investigated fungal problems on paint inside box girders of the Tinsley Viaduct, climbing in where some of us wouldn't dare, taking samples, bringing them back to the laboratory, investigating and offering solutions; amongst the samples taken she discovered *Aspergillus fumigatus*, which stopped all work on the interior of box girder bridges showing mould growth throughout the UK. *Amorphotheca resiniae* (now known as *Hormoconis resiniae*) was first identified from aviation fuel at the institute, Nan was asked to monitor fuel for the Concorde prototype and she visited the plane during its construction and development. CMI was involved in work with Quorn when first developed by Rank Hovis, Nan on a visit to Billingham enjoyed sampling a burger made from the fungal protein. Nan always got totally involved in her work and found it great fun. This infectiousness and enthusiasm rubbed off on all who worked with her, asked once why do you work with fungi her response was immediate, "because they are so pretty" a response catching most people by surprise and putting them at ease. Most lay folk would disagree with this statement but she saw beyond the surface and when teaching she introduced the beauty of mycology to many.

In the early years of Nan's career travel was rare but she did manage to travel widely to attend International Mycology and Culture Collection Congresses and also to teach on training courses. Nan recalled with a touch of disbelief going paddling with colleagues, Brian Sutton and David Hawksworth in the Gulf of Mexico whilst attending the 2nd Mycological Conference in 1977 at Tampa, Florida. Nan was ever present at the European Culture Collection Organisation meetings held in cities across Europe and International Culture Collection Congresses in Brno Czechoslovakia and Thailand. Nan also visited Africa on several occasions running training courses in Kenya and Egypt. Nan was always looked to make the most of such trips. Professor Moubasher of the University of Assuit, Egypt invited Nan before she retired to run a training course on Taxonomy of *Aspergillus* and *Penicillium* and help them commission a freeze-dryer and begin the long-term preservation of their fungal collection. She persuaded her hosts to invite David Smith to help and they shared a lecture tour of the University's experimental stations along the Nile valley. Nan persuaded David to accompany her on a camel ride, visit the pyramids, the Valley of the Kings and Luxor making the most of the adventure and making up for the not so glamorous times.

Nan's published widely on a range of topics the list includes *Mycological Paper 107 Monophialidic species of Paecilomyces* (1967); *Smith's Introduction to Industrial Mycology* (Onions, Allsopp & Eggins, 1981); *Preservation and Maintenance of Living Fungi* (Smith & Onions, 1983, 1994); reports on the application of new technologies and numerous CMI description sheets.

Nan was a much-loved colleague and will be remembered for her contributions to taxonomy, culture collections and CABI, a truly wonderful lady.

Aitchison, E. & Hawksworth, D.L. (1993). *IMI: Retrospect and prospect*. UK: CAB International

Onions, A.H.S., Allsopp, D. & Eggins, H.O.W. (eds.) (1981). *Smith's Introduction to Industrial Mycology*, 398 pp. London, UK: Edward Arnold.

Onions, A.H.S. & Barron, G.L. (1967). *Monophialidic species of Paecilomyces*. *Mycological Paper*. UK: CAB International.



David Smith
CABI Europe

Biodeterioration of Wood and Wood Products

IBBS Meeting, August 2007 Riga, Latvia

The programme for the BWWP (Biodeterioration of wood and wood products) at Riga, Latvia may be found on the website. A very impressive range of international speakers, ranging from New Zealand, United States, Japan, South Korea and across Europe) will be presenting their findings in the field, focusing on 4 areas:

Session 1, biodeterioration of wood by fungi and bacteria, focuses on processes more physical and chemical processes and outcomes.

Session 2, wood biodeterioration and cultural heritage, links the microbiological processes to the impact on history and conservation.

Session 3, structure and micromorphology of decayed wood - does what it says!!

Session 4, biotechnological applications, extends the work to control, prevention, and other applications arising from research findings, and

Session 5, methods of wood biodeterioration studies focuses on novel approaches, including molecular characterisation.

Complementing this excellent programme is a range of social and cultural events, poster sessions and prizes.

Many thanks to the organisers, and to FEMS, for helping to support the event and enabling the attendance of young scientists to present at this important meeting.

New Book: Manual of Soil Analysis

Margesin, R. and Schinner, F. (Eds), 2005, *Manual of Soil Analysis: Monitoring and Assessing Soil Bioremediation*. Springer. Eur 129.95.

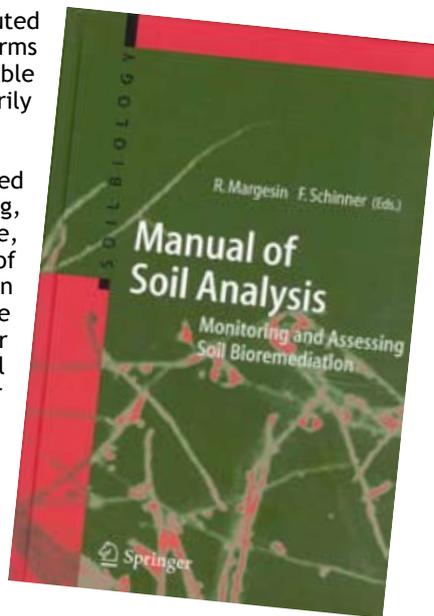
Review by: Kevin G Taylor, Department of Environmental and Geographical Sciences, Manchester Metropolitan University, Manchester. M1 5GD.

This collection of edited chapters, contributed from a broad range of international experts, forms a manual of methods of soil analysis applicable to soil bioremediation. It is, therefore, primarily a technical and reference collection.

The first three chapters give excellent, detailed overviews of standard methods for soil sampling, sampling design, sample handling and storage, physical and chemical characterization of soils, and quantification of soil contamination (both by metals and organics). These chapters would make essential reading for any scientist or consultant working in soil characterization. There is also a short chapter on immunotechniques as a tool for detection of hydrocarbons. Following from this there are three comprehensive chapters on feasibility studies for microbial and phytoremediation of metal- and hydrocarbon-contaminated soils, and two short chapters on methods for the assessment of hydrocarbon degradation.

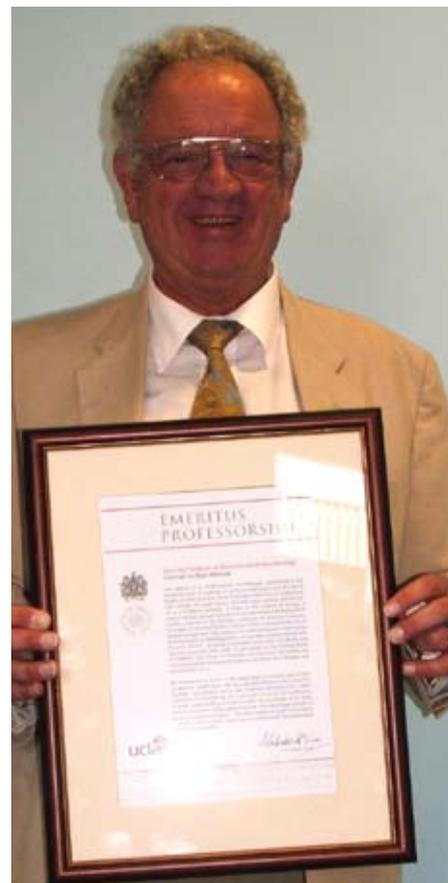
The tenth chapter is a very useful chapter on the methods for molecular, DNA-based, analysis of soils, and covers the theory and detailed methods behind DNA extraction, PCR amplification of extracted DNA and the molecular tools for analyzing microbial diversity in the DNA sample. There are two short chapters covering methods in bioreporter technology and fatty acid determination, followed by chapters on the enumeration of soil microorganisms, quantification of soil biomass, determination of adenylates, aerobic N-mineralization and enzyme activity. The last chapter covers the details of ecotoxicity assessment using bioassays.

Each chapter is well referenced, including a significant number of references to ISO methods, and clearly sets out in detail the methods, chemicals and steps for each of the analyses described. I would recommend this book to practicing soil scientists, students and those working in the field of environmental remediation. It should have a place in all university libraries.



Emeritus Morton!

Prof Glyn Morton received his Emeritus Professorship award on Tuesday 5th June from the University of Central Lancashire. The presentation was attended by family, friends and colleagues from scientific, industrial and other disciplines - the audience numbered well over 150, providing clear evidence of the respect and friendship which he inspires.



Glyn's talk, which as ever was funny and witty whilst still containing important scientific findings was excellent, and had the audience laughing throughout. Many words have been said about Glyn's career both at the award ceremony and at the IBBS Manchester 2007 meeting by his friends and colleagues. As a previous student of Prof Morton, his novel method of teaching (alternately cajoling and shouting at us to keep us awake) inspired me to pursue a career in the area in which I work today. Despite being a world leading expert in his field "of rot and snot" (his words not mine) he always had time to explain, and a kind word for his students, and that is one of many aspects that I remember most fondly about him.

Cheers Glyn and all the best,
Kath Whitehead