

# IBBS World



Newsletter of the International Biodeterioration & Biodegradation Society  
Issue 13, January 2008.

[www.biodeterioration.org](http://www.biodeterioration.org)

## IBBS-14

The Symposium is dedicated to biodeterioration and biodegradation of a very wide range of substrata.

Symposium Topics are:

Biofilms and Biofouling

Microbiologically Influenced Corrosion

Biodeterioration of Works of Art and Cultural Heritage

Biodegradation of Oil Hydrocarbons

Biodegradation of Lignocellulosics

Biodegradation of Persistent Organic Pollutants

Biodegradation and Biofuels

Bioremediation of Contaminated Waters

Bioremediation of Contaminated Soils

New Methods and Nanotechnologies

Biodiversity of microorganisms

Biodeterioration of Medical Devices and Hygienic surfaces

We anticipate a fascinating symposium, bringing together scientists working on different aspects of biodeterioration, and encouraging sharing of ideas and experience.

Contributions will be in the form of invited lectures, oral presentations and posters. The official language is English.

February 28th, 2008 Pre-Registration

February 28th, 2008 Abstracts Submission

March 31st, 2008 Notification of acceptance

April 30th, 2008 FEMS Young Scientists Grant Application

June 30th, 2008 Registration at reduced fee

October 11th, 2008 Receipt of full papers

Full information on [www.ibbs-14.org](http://www.ibbs-14.org)

## IBBS-14, 2008

Hotel Capo dei Greci

Riviera di Taormina - Sant'Alessio

Messina Italy

6-11 October 2008

[www.ibbs-14.org](http://www.ibbs-14.org)

also [www.biodeterioration.org](http://www.biodeterioration.org), under meetings and events.

Pre-registration now open

Organiser, Prof Clara Urzi, University of Messina, Italy

## Editor's Notes

Happy New Year! We are very much looking forward to IBBS-14, and I would like to encourage you to submit abstracts in time for the February deadline, and to pre-register. The programme is exciting and diverse, and the location is exquisite. Some of the sessions are directly related to heritage, and Sicily has plenty of that!

Our AGM was held in Manchester - fast becoming an important venue for IBBS. Manchester Metropolitan University hosted the event, which followed a fascinating lecture on a special sort of biodeterioration, Wound Infection. Professor Valerie Edwards-Jones gave an overview of the problem, and outlined some of her research, which was focused towards novel aspects of treatment, ranging from maggot therapy to antimicrobial dressings. Imagine the images...

At the AGM some changes were made to Council. After many years loyal services as Hon Treasurer, Brian McCarthy stepped down, and the post is now taken by Kath Whitehead. She passes her membership role to Lawrence Staniforth. Council would very much like to thank Brian for his contribution to the development of the Society over the years, and we are sure that we will keep in touch with him, since his role in Technical Textile development fits in well with IBBS activities. Please remember that all members are most welcome to stand for election to Council, as well as to participate in any and all of IBBS activities.

I hope you enjoy the newsletter, and I look forward to seeing you at IBBS-14.

Jo Verran ([j.verran@mmu.ac.uk](mailto:j.verran@mmu.ac.uk))



# Biodeterioration of Wood and Wood Products (BWWP 2007) Riga, Latvia, 26 - 29 August, 2007.

An IBBS sponsored conference on Biodeterioration of Wood and Wood Products (BWWP 2007) was held in Riga, Latvia, from 26 to 29 August, 2007. The International Conference "Biodeterioration of Wood and Wood Products" (BWWP 2007) was held in Riga, Latvia, from 26 to 29 August, 2007.

Our aim was to bring together researchers and students, who are involved in research of wood biodeterioration by fungi and bacteria, and around 80 delegates from 20 countries - across Europe as well as Japan, USA, South Korea, and New Zealand participated in this event.

Such a conference on wood biodeterioration was held for the first time in Latvia. The conference's initiator was the International Biodeterioration & Biodegradation Society, IBBS, whose President Prof. Joanna Verran committed the organisation of this event to the researchers of the Latvian State Institute of Wood Chemistry. Special thanks to Dr. Jimmy Walker (IBBS) for his help and advices during the preparation of conference. Financial support was received largely from the Federation of European Microbiological Societies, FEMS. The event was supported also by the Latvian Academy of Sciences and the Latvian Council of Science.

The conference was convened to provide a survey of the recent studies and achievements in the field of biodeterioration of wood and wood products. The Scientific Programme comprised 22 oral presentations and 15 posters.

The Opening session started with the welcoming addresses given by representatives of State Institute of Wood Chemistry and Latvian Academy of Sciences followed by representatives of IBBS (Dr. Christine Gaylarde) and FEMS (Dr. Alexander Rapoport).

An excellent overview of wood deterioration by microorganisms was presented by Prof. Barry Goodell (University of Maine).

Special attention was paid to the structure and micromorphology of decayed wood, exciting lectures in this topic were presented by invited speakers Prof. Geoffrey Daniel from SLU, and Prof. Yoon Soo Kim from Chonnam National University.

Session on methods of wood biodeterioration studies started with attractive presentation by Prof. Kenneth Hammel (the United States) on new approaches for the analysis of fungal decay. Prof. Olaf Schmidt (University of Hamburg) shared his knowledge on molecular characterization of wood decay fungi. Information on the Professor's latest book *Wood and Tree Fungi* also was available during the conference. Outstanding reports given by Dr. Hannu Viitanen (Finland) and Dr. Jagjit Singh (UK) were devoted to the biodeterioration of cultural heritage.



*Ilze Irbe and Chris Gaylarde*



Researchers shared the experience regarding applications of wood biodegradation in biotechnology. Prof. Kurt Messner (Vienna University of Technology) described use of mechanisms of microbial wood degradation as a biotechnological tool. An excellent account on biotechnological applications of wood decay fungi and their oxidative enzymes was given by Prof. Annele Hatakka from University of Helsinki.

At the Closing session the poster review and analysis of their scientific impact was provided by Prof. G. Daniel (SLU). The posters represented all conference topics illustrating the latest achievements in the field of mechanisms of wood decay by microorganisms, micromorphological investigations of decayed wood, application of wood degradation in biotechnology, molecular approaches in biodegradation studies, as well as the case studies of biodeterioration of cultural monuments.

The IBBS Poster prize went to the FEMS grantee Anne Christine Hastrup, PhD student from Denmark.

The Riga City Council reception was organized at the House of Blackheads, a national cultural monument, located just across the Town Hall Square. The guided tour was provided in this building, dated back to the XIV century and recently reconstructed. Participants were introduced with the history and amazing interior of the cultural monument. The welcoming address was given by a representative of the City Council Dr. Juris Zakis. Discussions continued free and easy at the refreshments table.

The conference dinner was held at Lido Recreation Centre, as it is stated "one of the largest and most beautiful timberworks in the Europe". The restaurant offered variety of cold delicatessen, exquisite hot courses, special LIDO cakes and desserts. Live music and dances were presented by a folk group "Maskachka". The atmosphere was very relaxing and cheerful. Almost all conference delegates were involved in joyful Latvian folk dances and games. Even musicians were surprised for such an activity and asked - who are those attractive people?!

According to the opinion of participants, the conference was significant and fruitful, consequently, after the conference a discussion is started about necessity to organize such type of meetings in future.

Ilze Irbe

Many, many thanks to Ilze and her team for organising the meeting.

If any member wishes to organise an IBBS meeting, please contact [jimmy.walker@hpa.org.uk](mailto:jimmy.walker@hpa.org.uk) to discuss.

# Book Review: Mycoremediation

Mycoremediation: Fungal Bioremediation  
Author: Harbhajan SINGH  
Publisher: Wiley, 2006, ISBN 0-471-75501-X

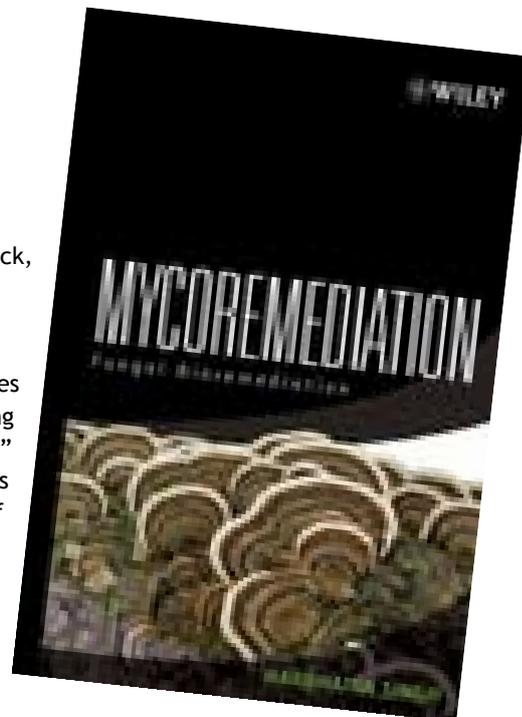
Review by:

Rosa Margesin, Institute of Microbiology, University of Innsbruck, A-6020 Innsbruck, Austria

Mycoremediation is a new and emerging field in bioremediation and involves the use of fungi to degrade (reduce or eliminate) organic compounds including environmental hazards. The book "Mycoremediation: fungal bioremediation" written by H. Singh is very comprehensive and is composed of 12 chapters on 592 pages. The author summarizes current knowledge on the application of fungi in a wide range of bioremediation processes. The book is unique in its form, since it is the first encyclopedic examination of this topic. It covers all aspects of mycoremediation, including ecology, physiology and biochemistry, degradation pathways, biotechnology and reactor engineering.

The first chapter is an introduction to the general characteristics and detection methods of fungi involved in biodegradation and bioremediation. The treatment of a wide range of industrial wastewaters, including those from starch-processing, oil-manufacturing, dairy and pharmaceutical industry, from silage and olive oil mill, is described in the second chapter, with the focus on bioreactors. Chapter 3 is focused on the treatment of distillery and brewery wastes using yeasts and filamentous fungi. Five chapters (chapters no. 4-8) are dedicated to fungi that are able to degrade petroleum hydrocarbons, polychlorinated biphenyls and dioxins, phenols and chlorophenols, polycyclic aromatic hydrocarbons, or pesticides. Chapters 9-10 summarize the capability of fungi for decolorization and degradation of pulp mill effluents and dyes, and the last two chapters are on the use of fungi for the biosorption of heavy metals (chapter 11) and on the use of mycorrhiza for the remediation of rhizosphere contaminated with heavy metals or hydrocarbons (chapter 12). Each chapter is very well referenced; the book contains about 2000 references in total.

This book is recommended for scientists, engineers, regulatory experts and students working in the field of bioremediation and should be present in all libraries of universities and offices involved in waste management.



## IBBS - The Helpline! Mummies mites and...

Via the IBBS website, Secretary John Gillat receives several requests for help in solving some interesting biodeterioration problems. We do not know whether the questions are answered and new collaborations established as a result of this, but some of the more recent requests have encompassed very wide ranging subjects:

- Chilean mummies. The Chileans have discovered and excavated mummies (7K years old) which are the oldest in the world. Since taking them out of the dry, rainless desert, they are being exposed to high humidity and the skin is putrifying. Microbes have created much damage and we are desperately searching for simple methods to sterilize the bacteria doing the damage.
- We want to test an insecticide against the mite (Romania)
- The effects of Microbial Growth on Carbon Epoxy Laminates when subjected to a Fuel/Microbial/Water Environment as in the newly designed airplane fuel tanks? (US)



Season's Greetings!

## IBBS Chapters?

There has been interest from some countries where membership of IBBS is significant, in establishing a sub-group or 'chapter' of the Society. For example, in Latin America, meetings are held regularly (see report below). In the Indian sub-continent, membership increased as a result of the Chennai meeting, and it was hoped that this enthusiasm and impetus could be continued. Council are looking at this proposal seriously, and hope that we will soon be able to provide information on 'how to set up an IBBS chapter'. Information will be given in the next newsletter. Watch this space!

## Latin American Biodeterioration and Biodegradation Symposium, Bogota, Colombia, 1 - 4 May 2007.

6 LABS - the 6th Latin American Biodeterioration and Biodegradation Symposium - was held in Bogotá, Colombia, from 1st to 4th May, 2007. Dr. Maria Mercedes Martinez was the initiator, chief organiser and President of the Symposium and used her extensive experience to ensure the success of the event, which had the largest attendance of any LABS to date - 500 delegates. Parallel meetings held at the Crowne Plaza Hotel were the V International Congress of Environmental Microbiology, the II International Symposium of Agricultural Biotechnology, the II International Symposium on Microbial Ecology and the IV Expert Meeting on Food Safety and Biotechnological Development.

Apart from some excellent oral and poster presentations from Latin America, Australia, Belgium, Spain, the UK and the United States, there was local entertainment at both opening and closing sessions and a final night outing to a draft beer bar in central Bogotá, where salsa lessons were on offer from students who had acted as assistants during the Symposium. If only our flights the next morning hadn't been so early....!

6 LABS abstracts are to be published in IBB and 7 LABS is to be held in Quito, Ecuador, in May, 2009. This will be an excellent opportunity for you to make that trip to the Galapagos!

Chris Gaylarde



6 LABS committee members at the closing ceremony; left to right - Blanca Rosales, Argentina (president, 4 LABS); Janeth Luna, Colombia; Katty Coral, Ecuador (co-organiser, 7 LABS); Maria Mercedes Martinez, Colombia (president, 6 LABS); Alba Marina, Colombia; Christine Gaylarde, Brazil (president, LABS 2); Otto Ortega-Morales, Mexico (president, LABS 5).



The choir at the closing ceremony.

## FEMS News

Each year, FEMS Council brings together the Delegates of the (53) constituent societies/organisations in Europe (including IBBS). FEMS Council convened this year in Dubrovnik, Croatia, on 2007 September 8, and elected Dr Milton da Costa from Universidade de Coimbra in Portugal as the new FEMS President for the next three years.

The new President explains below some of the novel ideas coming from FEMS.

'There are many interesting challenges ahead that will reflect FEMS' goal to unify and advance microbiology in Europe.

My aim as FEMS President is to strengthen FEMS' position both within science as well as within a larger arena in Europe. I hope for your continued support of FEMS as well. No association can live without its members, while no member will have the same benefits without the association. There is a lot to be done and I hope I will be able to meet with you one day to hear about your views on microbiology.

FEMS will set up a European Academy of Microbiology (EAM). This group will act as a scientific leadership group of European Microbiologists. The EAM will promote excellence in microbiology through targeted actions and programmes. Members of this academy will be elected through a peer review process based on scientific merit and achievements.

FEMS will also initiate a European Microbiology Council (EMC). This council's goal is to make microbiology more visible and to make it part of decision-making in Europe. Members of the EMC and the board will be organizations, companies and institutions recruited from academy (50%) and from industry (50%); the members will have to contribute to the council so that it generates its own funds. This council will have a base in Delft/Brussels and will be active towards main funding bodies, the media (press) and public arenas as a lobby/network organization'.

