

# MICROBIOLOGY AT THE URDD EISTEDDFOD

**THE URDD EISTEDDFOD** ([www.urdd.org/eisteddfod/](http://www.urdd.org/eisteddfod/)) is one of Europe's largest youth festivals, taking place during the summer half-term school holiday, with the location alternating between north and south Wales. In addition to the main Eisteddfod competitions (music, dancing, recitation, etc.) there are over 100 peripheral stands and pavilions. In 2010, the Eisteddfod was held in the grounds of the National Trust's Llanerchaeron Estate, near Aberaeron, Ceredigion. Llanerchaeron is of particular microbiological interest, because the lawn surrounding the mansion is home to diverse populations of grassland fungi, with 24 species of a single genus (*Hygrocybe* spp.) recorded there.

Due to the research interests of the staff members from Aberystwyth University (IBERS), the focus of the exhibit was strongly mycological, with the main display posters (entitled *Pwdrlyn*, which translates as 'rotter' or 'wastrel' in the



All photos: *Richard Evans*

matters scientific have received relatively little attention at the Urdd Eisteddfod, but this year the Urdd were persuaded to host a science pavilion named Y GwyddonLe ('the science place'). Some 25,000 people (mainly schoolchildren) visited the Eisteddfod on each of the 6 days, of whom about 5,000 (daily) visited GwyddonLe. As such, this new venture proved to be a great success, so we were very pleased to provide a showcase for microbiology at the event.

The star of the show was *Badhamia utricularis*, now a famous microbe having appeared in *Planet Earth* (episode 6). It is very similar in appearance to its better-studied relative *Physarum polycephalum*, but much easier to maintain. With small children, it was easier

Ceredigion dialect) illustrating the key role of fungi as decomposers of terrestrial plant debris. It also highlighted the importance of fungal conservation, an issue ignored in mainstream biodiversity conservation, but highly relevant here given our proximity to the Llanerchaeron lawn.

Whilst the National Eisteddfod has a long-established science pavilion,



to ask them if they could see the river flowing (cytoplasmic shuttle streaming) and to watch the reversal of cytoplasmic flow at minute intervals. It was quite noticeable how almost every singly boy (but never any of the girls!) on seeing a microscope would fiddle with the focus knobs, stage levers, etc., before even peering into the eyepieces. We quickly realized the need to hide the stage with a cloth, leaving only the eyepieces visible.

The *Feel a Fungus* exhibit, basically two Petri dish bags placed in a box containing either dried or wetted basidiocarps of the ear fungus *Auricularia auricular-judae*, was also very popular (scored highly on yuck factor), though of dubious scientific value. To illustrate the importance of fungi in nature,



*Pwyswch y Pwdrlyn*, children were invited to weigh two small logs and to guess why they differed so much in density. Few were aware of the unique role of white rot basidiomycetes in lignin decay, but even 5-year-olds knew which type of wood they wood make a chair from. The biotechnological importance of fungi was shown using burum (yeast) cultures to inflate balloons and, unfortunately, not everybody appreciated the 'hint of brewery' odour that permeated the whole pavilion by the end of the week.

In contrast to the younger children, it was disappointing to note the suspicion of many adults to fungi – 'is it poisonous if you eat it?'. Such questions are not asked of plants or animals, so mycophobia is deeply ingrained in Welsh (and British) culture!

We thank the BMS for the loan of models and the SGM for a grant from the Education Development Fund.

We are also grateful to Carol Hobart and John Hedger for the inspiration for the display poster and the exhibits, respectively.

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## NSEW 2011

**NSEW** (National Science and Engineering Week) is a series of around 3,500 events which take place over 10 days in March each year aimed at people of all ages and levels of scientific understanding. The activities across the UK celebrate all aspects of science, engineering and technology and their impacts on our lives. If you are interested in taking part in public outreach, this is the perfect time to test the water.

This year's theme is *Communication*, although if you find you cannot fit into this theme then do not worry – there are no restrictions on the area of science which you present. In fact, there are no restrictions on audience, venue, activity or who runs the events!

The British Science Association coordinates NSEW. If you are interested in taking part in March this year, have a look at their website ([www.britishsociety.org](http://www.britishsociety.org)) for more information, or for advice on an event which you have in mind, check out the SGM website ([www.sgm.ac.uk](http://www.sgm.ac.uk)).

The SGM is keen to support any members interested in taking part in public engagement exercises which promote microbiology. Please get in touch if you would like copies of any of our resources or freebies which you can hand out at your event. If you have any ideas, why not let us know – you could even write them up for *Microbiology Today*!

For further information, contact Vicki Symington ([v.symington@sgm.ac.uk](mailto:v.symington@sgm.ac.uk)).

RAISING THE PROFILE OF MICROBIOLOGY