

The 2016 BMS Group Leaders' Meeting

The 2016 GLM was held at Northern College, Barnsley, and attracted 33 participants including representatives from 18 BMS-affiliated fungus groups.

The weekend was launched with an after-dinner address from the BMS Vice-President, Dr. David Minter, in which he explored the way in which politics, science, education and infrastructure all have a part to play in fungal conservation. David highlighted numerous examples of the way in which institutions fail to give fungi a status comparable with that given to plants and animals but instead continue to use of the term “lower plants”. He moved on to red-listing where, at least on the international stage, there was scope for optimism following the release of the first tranche of fungal species on the IUCN international red list. David concluded his talk by challenging all present to contribute to raising the profile of fungi and fungal conservation at every opportunity.

The Saturday programme began with Dr. Stuart Skeates' well established and successful routine for breaking the ice and ensuring participants were properly introduced and welcomed to the event.

Carol Hobart introduced the BMS, taking us through from the origins of the society to the present day and describing the committee structure and activities that underpin the organisation. She reminded group leaders of recent enhancements made to the small grants scheme.

Tim Wilkins (Natural England) gave a presentation on sites of special scientific interest (SSSI), taking us through from the early days of the programme to the present time and explained how there had been a change of emphasis from site-based to habitat-based protection. He reported that plans were being developed for a review of the guidelines for fungal SSSIs - intended for publication by early 2017.

A Scottish perspective was provided by Dr. David Genney (Scottish Natural Heritage) who provided an overview of the work that led to the publication of Report 762 (Priority fungi in Scotland). The project included checks on herbarium material, site surveys and molecular studies (DNA). He concluded by discussing the increasing importance of soil-based survey methods that involve sampling for DNA analysis which had the potential for reducing the cost of survey work.

Stuart Skeates gave us an overview of the new fungus records database (FRD) and some of the challenges involved in its development. In conjunction with this he reported that work on updating and synchronising the current checklist of fungus names with the UK species inventory held by the Natural History Museum had been completed a few days earlier and was now awaiting final testing to ensure there were no technical issues. Routine use of the system for the entry of records and interrogation of the data, including mapping, was shown to be straightforward, Malcolm Storey has put together a guide to using the system which will be circulated to users once the system is launched. The new system will run in parallel to the old system until the old FRD data is transferred across. The cut-off point for records destined for the old FRD was the end of May 2016. Work is underway to process outstanding files submitted prior to that date. Any records after this date will need to be retained by recorders until they can be fed directly into the new FRD.

Presentations from Kew staff commenced with a talk by Dr. Martyn Ainsworth. After briefing us on organisational changes and current Kew projects, Martyn outlined work on red-listing, including the IUCN programme mentioned by David Minter, as well as the challenges encountered in gaining access to data for UK red-listing. Dr. Brian Douglas brought the meeting up to date on progress with the “Lost and Found” project and encouraged recorders to visit the L&F website to see the newly added sections including individual Vice-County pages with annotated distribution maps. Brian reminded participants that the project had funds available for local initiatives which supported the L&F project.

The work of the Fungal Education and Outreach Committee was covered by contributions from Dr. Eleanor Landy and Meg Scully. Eleanor outlined FEO's work to promote knowledge of fungi and fungal science, then looked in more detail at the programme of reformatting or redesigning and upgrading the extensive range of BMS education material to provide a more user-friendly format. Meg then gave an enthusiastic overview of her role, and in particular encouraged support from BMS groups for UK fungus day. We were reminded of the resources available to support local UKFD events, including financial support of up to £150 (more in exceptional cases).

The evening session returned to recording with Malcolm Storey providing an historic overview of the fungus records database leading into a fascinating discussion on copyright and confidentiality issues (which most of us

probably had never thought about). Malcolm's presentation led seamlessly into a follow-up workshop by Stuart Skeates in which he picked up on his earlier presentation and provided practical examples of the versatility of the new system.

Sunday morning brought a change of direction with a well illustrated talk by Chris Yeates which combined a local flavour with some fascinating portraits of unusual fungi. The talk was woven around Chris's work on a Yorkshire mycota in which he is building up a photographic reference (including superb photomicrographs) covering 1,000 species found in Yorkshire. The product will be a worthy reference of value to amateurs and specialists alike.

The programme then moved to a series of discussion topics. The first, led by Dr. Derek Schafer supported by contributions from Carol Hobart, Martyn Ainsworth and David Harries, considered the impact of DNA sequencing on the work of field mycologists.

Derek illustrated the impact of DNA work on taxonomy with reference to changes to the *Coprinus* genus, and outlined the stages involved in taking a sample through from extraction to sequencing and construction of a phylogenetic tree. He made the point that DNA sequences form only part of the information needed to define boundaries between species and must take account of the macro and micro work traditionally associated with taxonomy: a concept known as “integrative taxonomy”.

Carol gave examples of the way in which she was using DNA studies for hypogeous fungi and emphasised the value of collaboration with other scientists in programmes leading to the publication of new species. She pointed out that although we often see new species described following DNA work, it may also be the case that species are lost in cases where they are shown to be insufficiently separated from others to justify species status: an example in this case being the loss of *Tulostoma fimbriatum* which she had described as new to Britain following a collection of non-typical material in 2011.

David gave a talk on the practical issues involved in carrying out DNA extractions and subsequent operations in your own laboratory (or corner of a garage in this case). This was based on experience of the Pembrokeshire Fungus Recording Network and demonstrated that, with suitable institutional/academic support, in this case from Aberystwyth University (Dr. Gareth Griffith), much can be achieved. The presentation also introduced the Bento Lab: a cost-effective package which incorporates four of the key pieces of equipment used for DNA extraction into a single lunch-box sized unit (www.bento.bio).

A discussion on the subject highlighted concerns from some that there could be a move towards a two-tier system with traditional field mycologists relying on field skills and microscopy whilst others had access to molecular techniques. It was noted that a similar situation must have existed before microscopy became more widely available as a mycological tool. The point was made that (traditional) field mycologists would continue to play a vital role in collecting, identifying and submitting good quality voucher material to support DNA studies by institutions such as Kew. The Kew L&F project was mentioned as an example of this.

The second topic addressed foraging for fungi.

The background to this was a series of “Future of Foraging” workshops being held across the country. Concern was expressed that the events were arranged by Natural England, but without any invitation to the BMS or any other national organisations to participate. Mariko Parslow distributed copies of a report from one of the meetings compiled by Vivien Hodge (Surrey Fungus Study Group) and John Bailey reported on a similar meeting he attended in the Bradford on Avon.

The event was closed by David Harries who thanked the contributors, Norman Porrett for his administration support, Northern College for their hospitality and facilities (albeit with some slightly quirky meal arrangements) and, not least, financial support from the BMS.

David Harries
7th July 2016