

TWIC Autumn Conference and AGM, Saturday 17th November 2012

The TWIC Autumn Conference and AGM took place in the Eric Liddell Centre in Edinburgh on Saturday 17th November. The day provided an opportunity for recorders and others interested in the wildlife conservation to get-together at the end of the recording season. A variety of talks were delivered on the theme of grassland recording and conservation, from the challenges and opportunities associated with recording bees, ants and wasps to the lessons learned from a grassland management project in East Lothian. TWIC Directors Ian Young and Kate Byrne chaired the morning and afternoon sessions respectively.

The first speaker of the day was **Ali Murfitt**, who spoke on the topic of grassland fungi. Ali introduced the CHEG(D) fungi; the Clavariaceae (coral fungi), *Hygrocybe* (waxcaps), *Entoloma* (pink gills), *Geoglossacea* (earth tongues) and *Dermoloma* (crazed caps). These 4(5) groups of fungi occur on unimproved to semi-improved grasslands that have been continually managed (e.g. mown), but have not been subject to any form of fertiliser application. The waxcaps are perhaps the most well-known of the CHEG fungi, including for example the beautiful Pink Ballerina waxcap *Hygrocybe calyptriformis* and the Blackening Waxcap *Hygrocybe conica*, whose cap changes from orange/red to black on contact.

Throughout her talk, Ali drew on her experiences as a Grassland fungi and wildflowers Natural Talent Apprentice with the Royal Botanic Garden Edinburgh and National Trust for Scotland as well as other published work. Ali reminded us that to the fungal diversity of the site cannot be determined by one visit alone, due to the irregular and ephemeral nature of the fruiting bodies. She also indicated that botanical diversity could not be used as an indicator of the diversity of a site for grassland fungi, as studies had shown low congruence between waxcap diversity and botanical diversity. Despite these peculiarities, Ali enthused us to get involved in recording this diverse group of organisms and gave a useful insight into how amateur recorders could usefully contribute to identifying sites for further survey and outlined which groups of fungi were most accessible for the beginner.

The Fungus Group for South East Scotland (FGSES) runs fungal forays on the first Sunday of every month. For further information on this local group as well as other information on fungi recording, including guidance on microscopes (an essential piece of kit for the mycologist), please visit the Scottish Fungi website <https://sites.google.com/site/scottishfungi/>.



Hygrocybe (Waxcaps). Photograph (c) Natalie Harmsworth

Duncan Davidson, Recorder for the East Scotland branch of Butterfly Conservation, spoke next. After dispelling some misconceptions regarding the differences between moths and butterflies, Duncan moved on to the main body of his talk. Duncan had cleverly reduced the vast topic of grassland butterflies and moths to a more manageable subset of species that have grasses as their principle food plants (95 moths excluding micro-moths and 17 butterflies). He then reduced the number of species further by choosing to focus his talk on those species that occur in the Lothian and Borders region only (the TWIC area). Even so, he could only cover a select number of moths in the allocated time.

Duncan drew our attention to the fact that the Gatekeeper *Pyronia tithonus* does not occur in the Lothians and Borders. The 'double eyespot' on the forewing tip is often referred to as a diagnostic feature for the species; however Duncan has also seen Meadow Brown butterflies *Maniola jurtina* with this feature. He therefore urged people to take a photograph of any suspected Gatekeeper specimens in this area in order that the record could be verified.



The Gatekeeper *Pyronia tithonus* is not found in the Lothians and Borders. This specimen was photographed in Somerset. Photograph (c) Natalie Harmsworth

Last year, Butterfly Conservation, in collaboration with the Centre for Ecology and Hydrology, published “The State of the UK’s Butterflies 2011”. This report, which is available to download from the Butterfly Conservation website www.butterfly-conservation.org/, summarises the findings of the UK Butterfly Monitoring Scheme and the Butterflies for the New Millennium project. In the context of national trends, Duncan described how butterflies were faring in our region. Overall, Duncan painted a mixed picture with some species faring better than others. It was interesting to note the northward expansion of species such as the Wall *Lasiommata megera* and differences in the fate of two nearby Meadow Brown populations.

Duncan concluded his talk by demonstrating the value of moth and butterfly recording both for personal wellbeing and enjoyment, but also as a necessary and valuable dataset for monitoring and the planning purposes.

Andrew Jarman of Bees, Wasps and Ants Recording Society (BWARS) delivered the final talk of the morning. Aculeates are part of the vast order, the Hymenoptera. There are approximately 590 species of aculeate Hymenoptera in the UK. Andrew indicated that these insects are grossly under-recorded in Scotland; indeed, for quite a few species the distribution maps are simply an indication of where the recorders live! There is therefore huge scope for people to make a real difference to what we know about the current distribution of aculeates by undertaking recording. What is more, there are fewer species to get to grips with in Scotland as compared to the south of England.

Andrew then covered some of the challenges to recording. He suggested that the species can be unobtrusive and small (some only a few mm long) and many are solitary, so they are easily over-looked. Recording is also weather dependant because conditions must be warm and still for the species to take to the wing. The flight periods of many species may also be short. Andrew described the types of grasslands that are particularly favourable for aculeates, in terms of foraging and nest sites. Knowledge of the requirements of the species e.g. a preference for sunny south facing slopes would clearly be useful if one was to look for them in the field.

Perhaps the most formidable challenge to recording is identification. Most species require considerable skill and experience to identify them and Andrew warned that photographs may not be sufficient for identification of all groups to species level. Bumblebees are surprisingly tricky to identify, with the queens being more straightforward to ID than workers. The BWARS website www.bwars.com/ provides a list of identification guides and runs workshops across Britain. Andrew is also happy to receive specimens locally. For Andrew’s contact details, as well as other ‘Local Experts’ for the Lothian and Borders region, visit the recording section of the TWIC website www.wildlifeinformation.co.uk/recording_experts.php.

Before lunch there was an ‘open mike’ session which allowed participants to advertise their own projects and events. Speakers included Graeme Wilson (Lothian and Borders Mammal Group); Natalie Harmsworth (TWIC Public Surveys); Adrian Sumner (The Girdled Snail); Elaine O’Mahony (BeeWalk and BeeWatch Surveys); Laura Coventry (Edinburgh Urban Sparrowhawk Study) and Julie Nicholson (Pine Martins in Urban Areas Project).



Natalie Harmsworth plugged the new TWIC 'Spots and Stripes' Survey, which is aiming to gather information on the distinctively marked Leopard Slug (*Limax maximus*) and Badger (*Meles meles*). For information on the survey visit the survey page of the TWIC website www.wildlifeinformation.co.uk/spots_stripes.php.

During the lunch break **TWIC's AGM** took place. This was the first AGM to take place since there had been a concerted effort to increase the number of TWIC members at the 2012 Spring Conference. Twelve members attended the AGM where David Dodds, TWIC Chair, gave a report on the previous year of TWIC's work. The Financial Statement was presented and accepted and the following Directors approved – Sarah Eno, David Campbell, Ian Young and Kate Byrne. Alastair Sommerville was also re-elected to the Board. Craig Macadam and David Dodds remain as TWIC Directors. It was also agreed that the annual membership fee stay at £5.

Stuart MacPherson, Biodiversity Officer at East Lothian Council, provided an insight into a coastal grassland management project at Yellowcraig. Yellowcraig is situated 3km west of North Berwick near the village of Dirleton. In the late 1990s management of the turf nursery ceased and there was concern that expansion of Sea buckthorn *Hippophae rhamnoides* could threaten the important grassland habitats at Yellowcraig. Through some innovative Powerpoint work, Stuart showed us how grasslands decline when management is removed.

A Sea buckthorn control project was initiated in addition to grassland management works in the turf nursery. JCBs were used to remove Sea buckthorn in order to remove the plants including the roots. Scots pine trees were also removed from some areas to prevent succession to woodland flora. Initial opposition to the works from some people was diminished by providing education. Use of JCBs created ruts in wetter areas, so some landscape restoration was needed after the works were complete.

In 2008 management was reinstated using flail mower. 4ha were managed in this way, with the remaining 1ha left as longer grass, scrub and trees. An annual quadrat survey was undertaken to monitor the effect of the management. The results of this survey for the period 2009 and 2012 show that the mowing has improved the structure of the sward in areas that were previously rank grassland dominated by False oat grass *Arrhenatherum elatius*. In the short turf, the effect of the mowing has been mixed with some new species colonising the sward, but other desirable grassland species being lost e.g. the lichen *Cladonia*.

Overall, the landscape at Yellowcraig appears more open. However, the management regime has created a waste product (grass cuttings) that must be disposed of by the Council. Maintaining the management regime will cost £2000 year hereafter. Stuart indicated that the ideal would be extensive grazing over a wider area rather than small scale mechanical cutting. Stuart speculated that an undesirable effect of Sea buckthorn removal may have been to reduce the rabbit population that previously helped to maintain a short sward. He highlighted the need for management to be both continuous and sustainable.



Stuart MacPherson giving his talk

Heather McHaffie, Royal Botanic Garden Edinburgh (RBGE), spoke about the Scottish Plants Projects at the RBGE. The 'Target 8 Project' is based on the Global Strategy for Plant Conservation, which aims to develop ex-situ conservation collections for 75% of threatened plants with at least 20% available for restoration and recovery programmes. The plants are collected and cultivated at the greenhouses at RBGE, providing a terrific educational resource.

One of the projects Heather described was the Arran Sorbus Project. Heather explained how the common tree Rowan *Sorbus aucuparia* had crossed with Rock Whitebeam *Sorbus rupicola* to produce the Arran Whitebeam *Sorbus arranensis*. The Arran Whitebeam had then backcrossed with Rowan to produce the Arran Service-tree *Sorbus pseudofennica*. A third species was formed when the Arran Service-tree backcrossed with Rowan producing the Catacol Whitebeam *Sorbus pseudomeinichii*. The Catacol Whitebeam on Arran is the only specimen left in the wild and the Arran Whitebeam and Arran Service-tree are regarded as Vulnerable. It was therefore decided to propagate a conservation collection. Attempts were made to propagate plants from seed in 2006, but propagation was poor. In 2007 cuttings were collected and grafted onto Rowan at RBGE. This proved effective and now the grafted material is being encouraged to grow its own rootstock so that independent plants will eventually form.

It was clear from a number of projects Heather described that the reintroduction programmes are meticulously planned and monitored. Heather emphasised the importance of monitoring to make sure that plants not only survive re-introduction but that the plants are able to reach sexual maturity and are able to set seed. In Heather's talk we also observed how over-grazing could be just as detrimental to plant communities as neglect.

Further information on the Target 8 project can be found on the RBGE website <http://rbg-web2.rbge.org.uk/scotplant/Index%20+%20list/index.html>. Heather is also course tutor for the RBGE Certificate in Field Botany and runs a Fern identification course at Kindrogan Field Studies Centre.

Kate Byre, TWIC Director, summed up the event. She said that Cultural Heritage groups could learn much from Natural Heritage regarding mobilising volunteers. Kate finished by thanking everyone on behalf of TWIC for their continued support and attendance.

Natalie Harmsworth