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Workshop report

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Explaining range changes: from county to continent. A workshop held at BRC Wallingford, 7 May 2011

National recording schemes and societies were particularly well represented amongst the 50 people who attended the second annual workshop to be held at Biological Records Centre, Wallingford. (The first workshop, *Measuring changes in species' distributions*, took place in February 2010).

One of the fascinations of working in the biological recording field is to see the wide range of schemes and societies who undertake recording of different taxonomic groups. Their aims are broadly similar, but differences in the resources available to them leads to considerable differences in their approaches. This was well illustrated at the workshop by a series of talks dedicated to the theme "Explaining range changes: from county to continent."

David Roy of <u>Biological Records Centre</u> (BRC) introduced the proceedings by emphasising the healthy state of biological recording, marked by a steady stream of publications at the national and county level, an increasing flow of records and an increasing number of analytical studies. This is



backed up by an appreciation by Government of the need for biological recording. There are, however, constraints which limit the potential achievements of the voluntary schemes and societies and one of the purposes of the meeting was to explore these constraints and to see what could be done to alleviate them

Quentin Groom of the <u>Botanical Society of the British Isles</u> (BSBI) took up the theme of computers as a "game-changer". He said that current methods of plant recording take too long, and are marred by geographical, taxonomic, temporal and habitat biases. Although much has been achieved, it is impossible to give absolute measures of the expansion and decline of species, to estimate population sizes and to predict future changes. He described a project to record randomly selected 'monads' (1-km squares) in Northumberland and Durham to obtain information on the area's commoner species. This was planned in the belief that it is better to survey a small area well than everywhere poorly; it is also (he thought) more enjoyable than traditional recording.

Like vascular plants, butterflies and moths are a popular group. Richard Fox of <u>Butterfly Conservation</u> (BC) described the Butterflies for the New Millennium and National Moth Recording Scheme projects. The butterflies show some dramatic recent changes in range which are (with one or two conspicuous exceptions, such as the decline of the Wall) easily explicable in terms of environmental changes. There is increasing evidence for changes in the distribution of some moth species, but the reasons for these are often less clear. He commented that the combination of stratified sampling and traditional recording works well, as the former identifies trends and the latter documents the known localities for species of conservation concern. He considered that there were no constraints on the recording work of his society other than finance – and in particular the essential need to support the three members of the BC staff who run the recording schemes. At the moment BC have to negotiate separate funding from the different agencies that need the data, and this is very time-consuming; he appealed for a more joined-up approach from government agencies.

The true bugs lie close to the other end of the popularity spectrum. Recording arrangements for these schemes have recently been reorganised and Tristan Bantock (Shield Bugs and Allied Species Recording Scheme) and Alan Stewart (Auchenorrhyncha Recording Scheme) introduced the new schemes and talked about trends in the distribution of these species. Both talks were illustrated by Tristan's sumptuous photographs. It was difficult, as we admired them, to understand why the schemes have fewer than 10 'hard-core' recorders (although they also receive many casual records of the more conspicuous taxa). It is hoped that Bernard Nau's forthcoming identification guide will increase their popularity, and the group is particularly suitable for online recording. Despite the current paucity of records there is clear evidence for rapid changes in the distribution of some species, including the increase of species on cultivated hosts and in response to recent climate changes.



Graham French demonstrates the new Interactive Mapping Tool (courtesy of Charlotte Coombes)

The two remaining talks dealt with medium-sized schemes. Janet Simkin of <u>British Lichen Society</u> (BLS) described the past recording schemes of the BLS and the large effort the Society has recently made to digitise their large backlog of paper records. This will lead to an up-to-date database, but the sources for funding on which the Society have drawn recently do not allow repeat applications, so the BLS has to find a way of maintaining this database.

Stuart Roberts of Bees, Wasps and Ants Recording Scheme (BWARS) described how their series of provisional atlases is nearly complete. As with other thermophilous insects, their recording is identifying marked range changes in some species and there is currently much interest in the role of hymenoptera as pollinating insects. BWARS puts much emphasis on the verification of records and this is often possible from good (or, even, occasionally, remarkable poor) photographs. The scheme is anxious to limit any expansion in its membership or activities, to avoid increasing the already large administrative demands on its volunteer officers.

During lunch we were able to see demonstrations of the <u>NBN Record Cleaner</u> (Stuart Ball) and <u>NBN Interactive Mapping Tool</u> (Graham French), <u>Indicia</u> (John van Breda), the <u>Invasive Species Compendium</u> (Philip Roberts) and <u>iSpot</u> (Martin Harvey).

Our title Explaining range changes: from county to continent was, in retrospect, unduly optimistic, as there was little evidence for meaningful engagement with European colleagues. However, my major impression of the day was of a buoyant atmosphere, and a sense that modern technology is now allowing us to maximise the potential of voluntary recording, and to identify the major changes taking place in some species' ranges. We have a much greater understanding than we did 20 years ago of the way in which the provision of attractive identification books and online resources can increase interest in what have hitherto been neglected taxonomic groups. The question of how to raise the relatively small amounts of funds needed to sustain this massive voluntary effort remains, and this reflects the wider debate about the Big Society.

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