

## Saved! The UK's only academic programme focusing on ID and recording skills

**Sarah Whild** is the Academic Director of the [Biological Recording courses](#), run previously through University of Birmingham for 15 years, now at [Manchester Metropolitan University](#) where she is also Senior Lecturer in Plant Ecology.

Sarah also chairs the [BSBI's](#) Training and Education Committee and, together with Sue Townsend, developed the [Field Identification Skills Certificates](#) which offer an empirical assessment of botanical field expertise.

Sarah joined the debate from 6pm to bring her considerable expertise and experience to use in answering questions about the roles and requirements of universities and national recording schemes in supporting the development of identification and survey skills.

**Interview by Paula Lightfoot with input from Ben Deed, Sue Townsend, Rich Burkmar, Martin Harvey, Bex Cartwright, Teresa Frost and Steve Whitbread.**

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- PL** First, I just wanted to say congratulations on finding a new home for the Biological Recording courses, which would have been a terrible loss. I think the overwhelming response from former alumni, employers and other stakeholders last year clearly showed how much this course is valued!
- SW** The campaign by alumni and students and also the recording world in general was overwhelming, Paula. The Vice-chancellor of the University of Birmingham received over 4,000 letters and emails.
- PL** I did the Biological Recording UCert a few years ago and found it thoroughly enjoyable and helpful to my career – but I had no idea it had been running for 15 years! How much did it change and evolve during those 15 years while it was run at Birmingham University?
- SW** It changed dramatically - we started off with just six modules, including the core one on biological recording techniques. We now have around fifty individual modules on different taxonomic and habitat groups.
- PL** Fifty modules! - We've been talking earlier about 'charismatic' and 'uncharismatic' species and about species whose data is 'commercially valuable'... How is it decided which species groups are covered in the Biological Recording modules - is it based on availability of tutors, popular demand or other factors?
- SW** Ah, that's an interesting question and the answer is a bit of all of those. Availability of tutors is probably our main consideration but Sue and I keep a close ear to the ground for what current students and prospective ones want, and we keep an eye on changes in legislation and grants too as this can drive demand. Having said that, we do sometimes get our fingers burned - we had a big demand for Springtail ID, so sourced a tutor, offered the module - and got no students. Part of that problem is lead-in time as we have to plan all courses for next year, back in May of this year.
- PL** Well I'm not going to comment on the 'charisma' or otherwise of Springtails... if anyone from Buglife is still with us they may have an opinion! ;-)
- SW** I think that's quite wise, Paula! I'm sure it was nothing to do with charisma on the part of springtails...
- BD** I have to cut in here and say I do love the Springtails. ; )
- SW** Hello Ben - well Springtails have got at least one shout-out today then! Would you do a module on them if one were offered?
- BD** Within the MSc, most certainly. I was hoping there would be one. On my third(?) visit to PM, I actually bought the very good [AIDGAP](#) guide!
- PL** Are there any species groups (or habitat types) that are currently not covered and you would like to see covered in future? And if availability of tutors is the main consideration, would a central database of species experts help at all - as proposed in an earlier interview?

- SW** Most of the time if there is demand for a subject we know pretty soon if there is a tutor available - but lists of species experts don't always correspond with the best tutors - it's a pretty rare combination getting species experts who are excellent communicators and are also willing to take on the academic and administrative burden of teaching a credit-bearing course.
- SW** Have 'Training the Trainer' sessions been of help with that?
- SW** The Training the Trainer sessions for higher plant botanists that we do through BSBI have been very helpful and are great for networking. You would think that in one of the more popular groups such as vascular plants, we would have no problems finding tutors but we have had to do some very careful succession planning for some of our key botanical tutors.
- PL** So will the move from Birmingham to Manchester Metropolitan University bring any change to the Biological Recording course content or the way the programme is run?
- SW** I think the most positive change on a personal note for me is the opportunity to work with so many great fellow ecologists who are so familiar with the importance of biological recording and species identification skills - our head of school is the author of two of our key texts. The most important change to how the ID certificate is run is that we now operate what are called shell modules - at Birmingham every individual course was written up with a specific syllabus and had to be approved academically (taking around six months) before it could be offered. Because our modules are so similar in nature we can now slot in a new taxonomic group or habitat group at the drop of a hat.
- PL** MMU's BSc (honours) in Ecology and Conservation is one of the degrees recently awarded CIEEM accreditation. Were you involved in that process? Might it give MMU a competitive edge in recruiting students?
- SW** There was a group of us involved in that process and we were keen to put more programmes in for approval (and will do in the future). I hope it will give MMU an advantage but species ID and field work is already embedded in that degree. External examiners always ask about external accreditation now so it would be great to be able to tick that box at some point with the biological recording programmes.
- PL** Suzie Bairner at Buglife said earlier that she felt she learnt nothing about field skills and species ID at university, and I was going to ask you whether you taught this as part of your 'mainstream' University work as Senior Lecturer in Plant Ecology - so I guess the answer is yes?
- SW** At Birmingham, teaching full-time undergrads was very much part of my work - I gave lectures, ran practicals and ran a week-long field module on biodiversity field skills. At MMU I have been given a year off undergrad duties but that ends in October and I will start teaching MMU undergrads then - and am thoroughly looking forward to it!
- SW** It's also worth mentioning that the [Linnaean Society](#) will soon have a list of all courses of taxonomic interest on their [website](#).
- PL** Some universities offer ecology field courses in exotic locations which are obviously a big draw for students. Should they be focussing more on developing the skills needed to understand and manage our own ecosystems rather than mangroves and coral reefs? Or are the skills learnt on these field trips transferable?
- SW** That's a very good point - at Birmingham I had to compete with two field trips - one to Florida, one to Brazil - but strangely enough my humble Shropshire one always filled - I think because in the descriptor, I always emphasised the real experience they would get that they could use directly if they wanted to work in field biology in the UK.
- PL** One of my local universities offers marine ecology field modules in Cuba and...Scarborough! But actually in today's climate with students having less money and fewer jobs on offer when they graduate, a career-minded student would choose Scarborough every time, to improve their employability, as you say. Glad to see there were plenty of sensible students at Birmingham too!
- SW** Paula, I thought they chose Shropshire because of the content and the scenery! No, seriously the cost has a major impact on module choice.

- ST** I think there are fewer university field trips - especially those concentrating on some of the skills emphasised by Sally Hayns in the Skills Gap paper with a UK focus. It is great to see there are field modules at MMU and I personally see so much value in these for upskilling future ecological professionals.
- SW** There are fewer, Sue - they are expensive for universities to run, and the expertise is declining too - molecular biologists are replacing whole organism biologists especially in the Russell Group universities.
- SH** One of CIEEM's purposes in requiring a minimum level of fieldwork for accreditation was to support lecturers in defending the cost of field trips which we see as a crucial part of the learning. Certainly some of the feedback we have had from academics is that it is helpful
- SW** Hi Sally - too true - the cost of field trips is often held up as a reason for limiting them - but that's because they are usually stand-alone and easy to cost out as an individual module, whilst lab-based practicals can be massively expensive but are not so easy to cost out. Also, with more and more emphasis on the student experience, field modules are hugely popular with students. Even when it rains all week...
- ST** I believe they say the relevance of high quality UK based training making the field trip vocational for those who wanted to go into ecological careers.
- BD** As a current MSc student I have wondered what happens at the end of my studies? Are there links or possible links with other schemes or programmes that students can be directed onto, post-study? For example the wider network of the Biodiversity Fellowship or an active group local to that student?
- SW** Well, Ben, if you're not going to stay on and do a PhD ;-) - seriously, many students become experts in their own rights. On the MSc Biological Recording we have several tutors that were once students - they have become experts in their fields because of the networking within the course, and of course, because of their own dedication and interest.
- BD** Not sure I'm logical enough for a PhD, and far too funereal...I like the idea of pursuing something and teaching (though I doubt I could!), I think a wider network would really help to support my future learning as a Naturalist, I just struggle to travel and wondered about a wider support network of ex-students and naturalists (not just online!).
- SW** Ben, I agree - it is something I would love to have the time to sort out - there is such a strong network following on from the campaign - it would be a shame not to capitalise on that. Annual conferences on advances in recording would be a good way to get ex-students back together.
- ST** I think there is a lot of synergy here - perhaps reunion conferences/Bio.Fells weekends/NFBR presentations/skills updates/CIEEM presence and Govt. agencies all in one place?
- SW** Wow, Sue - let's make it so!
- PL** And a recording day at the end, like we had at the NFBR conference :)
- SW** But of course!
- StW** with Collembola for Ben
- SW** Rich, I have a feeling we may be committing to something here. It is exciting and it would be worth the effort.
- RB** I'm definitely committed to the idea! Let's all think/talk about it and see what's possible. :)
- PL** So the only decision remaining is whether we hold it in Florida or Brazil...
- StW** It will be annual, yes? So eventually both. And then Scarborough
- RB** or Preston Montford!!
- SW** Definitely! Preston Montford - gets my vote every time - have you ever tasted the cake in Florida? No contest

- SH** This sounds like a great idea - collaboration, conference and cake. What's not to like!
- ST** You might like a light-hearted publication to support us in our 70th – we now have a [fold-out chart to cakes!!](#)
- StW** Look. Nobody told me they were type specimens, OK?
- PL** Fantastic!! Where do I send my cake records, is there an online recording system??
- RB** I write an iRecord online app for it! :)
- SW** Oh, baggsy me be the national recorder! Do I get the distinct feeling the level of conversation is degenerating? I hope I'm not getting all the blame...
- RB** :) (There should be a like button on this thing.)
- StW** Present company excepted, universities are major users of biodiversity data, but most of them don't seem to be aware of the importance of biological recording skills or to make any investment in developing these skills (on which they depend) or make data more widely available. Is that a fair statement? How might it change in future?
- SW** I think that is a very fair point, Steve - it is only recently that record quality has made its way into papers in the decent journals as a subject that obviously determines the impact of most field science. But there is still a big assumption that the data are out there for free to be used by researchers. Getting hold of records from PhD theses is also difficult but I hope that as the idea of biological recording becomes more common currency, this will change.
- PL** Wow, just realised we're in the second hour already...I would like to ask about your work with BSBI because national recording schemes are obviously a (the?) major source of support for developing species ID and recording skills.
- In the first interview, Sue mentioned the Field Identification Skills Certificates (FISCs). Can you tell us about these - what was the aim, how long have they been running, how many people have taken them...?
- SW** The first FISCs were offered publicly in 2008 after two years of development. The aim initially was to offer an assessment of field identification skills that would encompass the whole skill range. So far, over 300 people have been awarded FISCs.
- PL** What sort of people have taken them? Are they mainly professionals who want to demonstrate their botanical competence to potential employers or clients, or are they mainly volunteer recorders who want to evaluate their own skills and see how they improve over time? (picking up the thread of accreditation and motivation from the earlier interviews!) How do they compare with the NHM's idQs. Have any other Recording Schemes indicated they might introduce a FISC-type system? Which might be of interest to professionals for CPD too.
- SW** We started off developing them with the NHM's IDQ group but they ran out of funding for one of the key posts and BSBI decided to carry on alone. The IDQs test the creme de la creme (as Miss Jean Brodie might have put it) as they have such a high pass mark - so really, only FISC level 5s would pass an IDQ. Many field biologists want to know how good they are even if they know they aren't that high up the ladder so that was the point of the FISCs. Also, the point is to test not only lab ID skills, but the field recording skill and that most difficult to quantify skill - the field 'eye'.
- PL** Interesting that there was a shift over time...and good to see that employers value accredited ID courses! It sounds similar to the IdQ exams that were run by the Natural History Museum, and I understand BSBI were on the IdQ advisory board. I think the IdQs are no longer running (?) but do you think there's a benefit to having a central standardised system of ID qualifications or should these be delivered separately by the relevant national recording schemes?
- ST** FSC have already been asked to consider a model for other taxa - at the moment we do not really have the capacity - but the idea is great and we would love to have a look at it. IdQs have been run on a rather ad hoc basis. I believe the Environment Agency still use the

freshwater invertebrates - and I know some have been hosted at FSC centres. I spoke to John Tweddle about this recently (Head of Angela Marmont - NHM) and he is keen to revisit it - so there may be scope for further collaboration.

**SW** I think the NHM runs tailor-made IDQs for the Environment Agency for freshwater invertebrate ID - those were always the most successful. I think for schemes such as FISCs and IDQs to work, there has to be a sound funding model - the IDQs were originally funded by a large grant from British Nuclear Fuels and after that it was very hard for them to be economically viable as they are very intensive in terms of collecting specimens. I'm afraid I exploit friendly expert botanists around the country in an utterly ruthless way and persuade them to send in specimens. I think any other taxonomic group would need to start from scratch as it is difficult to draw up protocols for assessing ID and field competency - it took Sue and me two years to come up with the original protocols.

**StW** Good to know that your joint efforts were a real success - and lots have benefited from them (and cake) already

**SW** Steve, they seem to have been and it would be wonderful to see it rolled out to other taxonomic groups.

**RB** I'd like to say that I did a FISC this year myself and was thrilled with my, ahem, level 4. Pauses for applause. I thank you. I really endorse the concept that the FISC measures all levels from beginner to national expert and that there is no pass/fail as such. People set their own goals (or perhaps employers may do it for them) and can use FISC to objectively measure whether they have met their goals.

**PL** Ah maybe you can answer a question I was going to ask Sarah then. In our last online interview we discussed the 'gaming' aspect of biological recording and the benefits of friendly competition. Is there an element of friendly competition between participants in FISCs or are people really just trying to improve on their own 'personal best'? Congratulations by the way!

**SW** Hmm, when zoologists start getting level 4 perhaps it's time to rewrite the criteria ;-). But seriously, one of the main uses that consultancies have for FISCs is that they can specify levels in their job adverts and that means they don't need to set ID tests at interviews.

**RB** Well that totally depends on the person I guess. I bet you could predict who will treat it in which way! Some people thrive on that competitive thing though - and if it works for them, then why not. But a strength of FISC is that there are no losers. When I got my result, it pointed out the things I could do to get a level 5 - which to a humble zoologist like me, all seemed insanely difficult (!) - and I could go back and retake it again to measure my progress if I so wished. It's kind of like an MOT (but with no fail and a much smaller bill).

**StW** On the gaming front, I gather that the traditionally accepted solution to the Prisoner's Dilemma has just been disproved - and that co-operation is apparently the best policy after all.

**SW** Co-operation - but not at any cost - well, certainly in recording terms!

**StW** Is it a step too far to suggest that since there isn't certification from Universities that key recording schemes should be encouraged to get FISCy? (something HLF might think falls within their remit as a follow to the Future Skills programme)? { Blast 3 other messages. Well out of sync now. }

**SW** Hi Steve, yes, BSBI awards FISCs, not MMU so I think it is only appropriate that the recording schemes start thinking about it.

**ST** I think this might be a whole separate meeting - and really interesting!!

**PL** Loosely following on from the reference to NHM earlier...

We haven't really mentioned the role of museums in supporting the development of ID skills, but they hold specimen collections that are a really important resource for recorders who want to improve and practice their ID skills. Do enough new recorders know about this resource and how to get access to it? Is this covered in FSC / Biological Recording MSc / Bio.Fells courses?

**SW** It's something that we teach on both the MSc and the UCert in Biological Recording - the importance of museum collections. I take in herbarium sheets from BIRM for students to handle and study and attempt to extract information from them, and we always put a strong emphasis on collecting vouchers and submitting them.

- PL** Of course, I do remember that actually - and I remember making my own herbarium sheets as part of the Asteraceae module! - but wasn't sure if its covered in Bio.Fells and other courses. You will be pleased to know I still make herbarium sheets and keep my own collection, but now it's seaweeds not terrestrial plants!
- RB** Paul Lee covers it in his 'difficult inverts' course which is an MSc accredited module. People that do that module now have to demonstrate use of reference collections when they submit their assignments, and several in the last batch (which I second marked) had used museums.
- BC** We are encouraged to use museum collections on the bio.fell and invert challenge courses yes. I know a few folk visit the Liverpool museum collections and I have used the collections at Oxford natural history museum, they were very welcoming and helpful.
- ST** Hi Bex, that's a good point - most museum curators are really welcoming and are delighted that people want to use the collections - recorders shouldn't be put off...
- ST** Paula - there will be a Linnean Society symposium in September on just this - I will find a weblink and ask Martin to post it on NFBR - look out for it everyone if you are interested
- SW** Sue, how remiss of me - thank you!
- PL** Excellent - well I can see that it is well covered on the courses, I only hope that the museums still have the resources to curate these collections.
- ....
- PL** Sorry lost contact there for a bit! We've had loads of great suggestions for what NFBR could do to support skill development in biological recording, not least co-hosting the three Cs conference (Cake and Collembola in Cuba) but I would like to ask Sarah if she has anything to add?
- SW** Oh the hamsters are pedalling slowly tonight but we seem to be back on line. I think that bringing together the recording schemes and societies so we can develop a coherent approach to training and assessing skills and also being able to swap skills that can transfer across taxonomic boundaries would be an excellent way forward and I am sure the NFBR is well placed to take this forward! thanks for being great hosts, Paula and Steve!
- PL** ...and as the system seems to be playing up a bit now...I would like to say a big thank you again to Sarah Whild, Craig MacAdam, Suzie Bairner, Sally Hayns, Sue Townsend and Rich Burkmar for your excellent responses, lots of food for thought! And thank you to Martin and Steve for being lead interviewers and to everyone else who contributed to the debate. We will collate this into a meaningful sequence of Q&As for each topic (not that I'm personally volunteering to do this!!) and make it available via the NFBR website as there are some excellent points raised and great ideas for future collaboration.
- StW** - And can I add all our thanks to everyone who took the time to look in on the 4 discussions and especially those who added comments and queries, all our interviewees and especially Martin and Paula [applause & cake].