

Blogpost on the development of best-practice guidelines for long-term ecoacoustic monitoring of UK biodiversity and the UKAN+ Monitoring Biodiversity Symposium.

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In early 2022, I was fortunate enough to be awarded a UKAN+ Knowledge Transfer Partnership grant to work with Carlos Abrahams of Baker Consulting to develop a set of best practice guidelines for acoustic monitoring of biodiversity in the UK. Ecoacoustic monitoring in the UK is in a stage of development - there have been a few recent very successful studies, but adoption of acoustics for monitoring beyond a few traditional taxa such as bats and cetaceans is not yet widespread. Elsewhere in the world, academic studies increasingly use acoustic monitoring for a range of ecological monitoring, including for birds, small mammals, insects, and soil invertebrates. With an increasing need for effective and affordable long-term biodiversity monitoring in the UK, with increases in biodiversity net gain projects, agri-environment schemes and rewilding, the time felt right for a new set of targeted, practical, guidelines.



An autonomous sound recorder ready to monitor biodiversity in the UK. Copyright Carlos Abrahams.

Creating a set of best-practice guidance presents a unique set of challenges - ensuring a comprehensive summary of the latest research, communicating the findings in a manner appropriate to the target audience, and most importantly getting buy-in from the community

we were hoping to appeal to. We determined that the best way to do this was to hold a symposium on a similar subject, and with the support of the UKAN+ Bioacoustics and Early Career Special Interest Groups, Manchester Metropolitan University, the University of Sussex and the Institute of Acoustics we set about organising a stand-alone event that would also inform our guidelines.

On the 15th-16th June, we held the symposium at Manchester Metropolitan University, with 70 in-person attendees and a further ~90 online registrants (from as far afield as Australia, France, Italy, and Germany). We attracted an audience from a diverse range of user-groups, including academia, Natural England, the British Trust for Ornithology, the RSPB, The Bat Conservation Trust, the Natural History Museum, rewilding organisations, and a range of ecological consultancies and tech companies. We were also pleased to see that over one third of attendees identified themselves as early-career.



Jack Greenhalgh in full flow discussing freshwater acoustics. Copyright Carlos Abrahams.

The symposium itself was very successful, with a range of excellent talks on a broad range of topics, including hardware selection, recorder deployment, manual and automated forms of data analysis for species identification - including cutting edge deep-learning methods, and the use of acoustic indices in soundscape analysis. Perhaps more importantly, it also allowed the time for leading researchers and practitioners to discuss latest developments and outstanding challenges in the field, and to make new connections amongst those interested in similar research. All the recordings of the event are available online on the [UKAN+ Youtube channel](#).

It was also an excellent opportunity to highlight topics we may have otherwise overlooked, get a range of perspectives on the challenges facing long-term ecoacoustic monitoring, and just get to know people better. We have taken the opportunity to gather a team of co-authors to help us write and review our best-practice guidelines (if you are interested and want to join the Slack group, get in touch!). The only thing that remains is to actually get on and write them!