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| Pilot Projects Final report |
| **Call round: 1** |
| **Pilot Project Title:** Developing best-practice guidelines to integrate long-term ecoacoustic methods into UK biodiversity monitoring |
| **PI: Oliver Metcalf** | **Research Organisation: Manchester Metropolitan University** |
| **Department: Science and Engineering** | **Start Date: 1/04/2022** | **Duration 4 months (extended to 9)** |
| **Cost of award (80%): £14,885.59** | **Value of co-investment: £3,721.39****In kind:** **Cash: £3,721.39** |
| **Co-I and associated RO: KTP partner, Carlos Abrahams, Baker Consulting Ltd** | **Acoustic Research themes:** Acoustics for understanding of climate changeImpact of noise on mental and physical healthImpact of sounds on wildlifeUnderstanding of soundscapes |
| **Collaborations & Partnerships involved in project:** Tell us about bi-lateral or multi-lateral partnerships/participation by the PI or research team in a network, consortium, multi-centre studyWe hosted [a symposium](http://acoustics.ac.uk/wp-content/uploads/2022/07/Blogpost-on-the-development-of-best-practice-guidelines-for-long-term-ecoacoustic-monitoring-of-UK-biodiversity-and-the-UKAN-Monitoring-Biodiversity-Symposium.pdf), also co-funded by UKAN, attended by over 160 people, to introduce and discuss the idea of the guidelines with the UK ecoacoustic community. Following this, we have convened an expert panel to co-author and advise on the guidelines, resulting in a Slack group with 25 members and the final guidelines having 18 co-authors.  |
| **Project Partners**  |
| **Value and details of in-kind co-investment: -** | **Value and details of cash co-investment: -** |
| **Summary** Passive acoustic monitoring has great potential as a cost-effective method for long-term biodiversity monitoring. However, to maximise its efficacy, standardisation of survey protocols is necessary to ensure data are comparable and permit reliable inferences.​​These guidelines outline a basic long-term acoustic monitoring protocol that can be adapted to suit a range of projects according to specific objectives and size. We provide an executive summary giving basic recommendations for audible-range terrestrial ecosystem monitoring, a Quick Start Guide based on a synthesis of the latest academic research, and over 100 pages of in-depth discussion of the requirements and considerations for undertaking good-practice use of long-term ecoacoustic monitoring.  |
| **Objectives:** As stated in the original case for support [Deliverable 1]: Production of draft best practice guidelines [Deliverable 2]: Production of final guidelinesPost-project [Deliverable 3]: Commissioning and production of brochure, and linking articles in practitioner magazines/journals such CIEEMs In Practice and Conservation Land Management, to promote the guidelines |
| **Outcomes/Impact\*:** Please refer to stated objectives. What impact has this had on the Acoustics Sector? How are the results being applied? Please provide specific examples/evidence to support the provided statements.Deliverables 1 and 2 have been achieved. The final guidelines will undergo some professional formatting so that Deliverable 3 will be completed by the end of January 2023 (agreed with UKAN+/ZH). This means that the guidelines will be released in time for the upsurge in field studies at the start of spring, and is likely to maximise impact. We know that the guidelines are eagerly anticipated by the community, and have been discussed at several recent high profile academic events (e.g. the British Ecological Society annual conference 2022 in Edinburgh and EcoHack 2022 in Stirling). |
| **\*What activities have you undertaken to engage with research users, special interest groups and the general public to inform them about the research?** We have wide-ranging participation, with co-authors from quangos (Natural England), research institutes (UK Centre for Ecology and Hydrology, Natural History Museum), industry (Skyline Ecology/Wildlife Acoustics, Baker Consulting Ltd), and 11 different universities. We know from the symposium that the guidelines will have broad appeal, including to government agencies in neighbouring countries, a range of conservation organisations, ecological consultancies and many others who are already aware of them. Once the guidelines are fully formatted, we plan to promote them through articles in industry magazines (CIEEM In Practice), through a short note in an appropriate academic journal, and by the broad social media reach of our co-authors. | **\*Have any new research tools or methods been created or commissioned, if so, provide details: -**No |
| **\*What activities have you undertaken to engage with research users, special interest groups and the general public to inform them about the research? Answered above** | **\*Have any new research datasets, databases and models making, or potential to make, significant difference to your research (or that of others), been created, if so, provide details: -**No |
| **Conclusion:** What is the primary outcome of this research? A 118 page document entitled “Good practice guidelines for long-term ecoacoustic monitoring in the UK” |
| **Plans for follow-on activities/grants:** How are these results being used to further the area of research or its application in an industrial setting? We are in discussion amongst the co-authors about the best way to maintain these guidelines as a living document that can continue to evolve and improve as new research informs changes to good practice. |
| **Weblink:** (to the outcome of the project, the Open Access repository for the data[[1]](#footnote-1), or press releases): See below |
| **List of publications:** in peer reviewed or non-peer reviewed literature. If no publications are available, what are the plans to publish? Please follow UKRI guidelines for Open Access [**https://www.ukri.org/manage-your-award/publishing-your-research-findings/**](https://www.ukri.org/manage-your-award/publishing-your-research-findings/)Once the professional formatting of the guidelines is complete, we plan to host versions of the finalised guidance on i) the UKAN+ website ii) the Biorxiv repository iii) Carlos Abraham’s github page. There is a pdf of the unformatted document attached to the email accompanying this document. |

1. As a UKRI award holder you must follow their research data policies- <https://www.ukri.org/manage-your-award/publishing-your-research-findings/making-your-research-data-open> [↑](#footnote-ref-1)