

BioBlitz: a growing movement in wildlife recording

BioBlitz events are local wildlife surveys often engaging public audiences to identify and record as many different species as possible in a given timeframe. This article explains how the BioBlitz concept has been deployed by wildlife bodies in the UK, and reports on the achievements of BioBlitz events, based on the first formal assessments.

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BioBlitz events are local wildlife surveys often engaging public audiences to find, identify and record as many different species as possible in a given timeframe. A BioBlitz usually combines the collection of biological records, as a form of contributory citizen science,¹ with public engagement. Naturalists, scientists and volunteers work together with members of the public and school groups to create a snapshot of the variety of life that can be found in an area. This provides an opportunity for participants to learn together and share their expertise and enthusiasm for nature whilst collecting valuable information about the wildlife of their local area.

A brief history of BioBlitz

The concept originated in the USA in 1996 when the United States Geological Survey ran an event at Kenilworth Aquatic Gardens, Washington D.C. in 1996.² It was here that the term BioBlitz was coined and offered as an open source idea to be used and adapted by any group. A series of similar events derived from a Biodiversity Day at Walden Pond, Massachusetts led by Harvard entomologist E.O. Wilson and Peter Alden.³ The terms Biodiversity day and BioBlitz have since become largely interchangeable. Various derived forms of BioBlitz events have taken place since then and the concept has become established in several countries including New Zealand, Spain, Republic of Ireland and the United Kingdom.

The number of BioBlitz events taking place in the UK has increased since the start of the National BioBlitz programme in 2009, attracting large numbers of participants and gathering much biological data. A national support network is coordinated by Bristol Natural History Consortium (BNHC) which ran one of the first BioBlitz events in the country and founded the network alongside partners of the OPAL (Open Air Laboratories) project.⁴ As an open source concept, anyone can run a BioBlitz. The National BioBlitz Network functions as a community: supporting new events with guidance and resources⁵, sharing best practice and undertaking research into the outcomes of the event format.

The format offers a great deal of flexibility and the brand identity has been adopted into other related activities. For example, in 2013 London's Horniman Museum was inspired by outdoor BioBlitzes to complete a major review of their Natural History Collections resulting in a 12 month project.⁶ As technology has advanced and online

access to expertise has become more easily available, biological recording has enjoyed the opportunity to expand its repertoire of platforms from records submission websites to species identification mobile apps. In 2012 a group of environmental professionals capitalised on this, voluntarily establishing Garden BioBlitz. This new format invited enthusiastic participants to BioBlitz their own gardens, consulting expert naturalists and scientists online before submitting their records.⁷

BNHC and partners of the National BioBlitz Network have identified 264 BioBlitz events that have taken place between 2006 and 2013. These events have contributed an estimated 113,000 biological records to local and national databases and engaged an estimated 83,000 participants. Overall, the estimated total audience of BioBlitz events continues to grow steadily year on year.⁸

Recording wildlife

Done well, an individual BioBlitz can make a substantial contribution to knowledge of a local site by providing a 'biodiversity snapshot'. The high concentration of recorder effort and expertise in a single locality supports identification of a wide spectrum of taxa and rare species may be more likely to be discovered and recognised in these circumstances. Site managers can use this information directly to influence habitat management, inform interpretation signage or apply for protected site status.

Most BioBlitz event organisers also submit the collected data to a recognised environmental data repository for wider use through Local Environmental Records Centres (LRCs) and online recording platforms.⁸ LRCs have been collating biological records, from mostly volunteer and amateur recorders, since the 1950s and 60s with technological advances now slowly pooling regional data into national datasets such as the NBN Gateway.⁹ These data repositories have been established through a long history of amateur wildlife recording in the UK, and the contribution of amateur recording to our understanding of local wildlife populations and distributions is widely considered to be world leading.¹⁰

This knowledge is vital for informing conservation policy and land management decisions.^{11,12,10} In a political climate that favours economic development over environmental sustainability and conservation of wildlife, it is more important than ever that we have the knowledge and evidence to support protection of green spaces and wildlife habitats locally and nationally.

However, BioBlitz events are not suitable as a replacement for ongoing monitoring and survey effort. For example, a single BioBlitz event cannot take account of seasonal changes - almost all BioBlitz events in the UK take place in Spring and Summer. Yet by galvanising and concentrating recorder effort, such events have a role to play in maintaining and expanding the existing datasets as well as recruiting future biological recorders and citizen scientists.

Engaging people and building confidence

Several recent reports have highlighted the importance of spending time in the natural world for health and wellbeing as well as environmentally positive attitude



An insect field guide gets pressed into action for a BioBlitz event.
Photo: Bristol Natural History Consortium

and behaviour traits, particularly among children and also shown that people are more and more disconnected from nature in their everyday lives.^{13,14,15} Outdoor events such as BioBlitz may help to break down barriers to engagement with nature by inviting exploration and discovery of local green spaces within the perceived security of a structured activity, thereby building confidence for people to experience the outdoors for themselves.

BioBlitz events encourage a diversity of audiences to take part, who have varying existing levels of engagement with the natural world. From the uninitiated such as families coming to enjoy a day out, to enthusiastic volunteers and experienced naturalists, a BioBlitz offers an opportunity to engage multiple audiences and facilitate informal learning between these groups under a common goal of discovering wildlife. Initial findings from an evaluation of BioBlitz events held in 2013 suggests that participants find this informal learning enjoyable and effective with around 90% of participants reporting newly gained skills or knowledge.⁸

Christmas, et al. identified different tiers of engagement with biodiversity issues from the oblivious to the highly active.¹⁶ BioBlitz events can and do engage participants from across these tiers providing an opportunity and a challenge to target messaging appropriately. If successful, BioBlitz events may have a significant role to play in shifting individuals into higher levels of engagement and positive action around wildlife and conservation issues, particularly biological recording.



Learning to use a pooter as part of a BioBlitz event.

Photo: Bristol Natural History Consortium

The same evaluation found that BioBlitz events are successful in attracting a diverse audience in terms of age range and existing knowledge and engagement with wildlife and conservation issues but are currently failing to engage members of black and minority ethnic communities where it seems further barriers need to be identified and addressed.⁸

Challenges for BioBlitz and wildlife recording

BioBlitz events have evolved and diversified in the UK as different local groups and organisations make use of the format for their own priorities of public engagement with nature and collection of biological records. BioBlitz events engage a growing audience in biodiversity issues and biological recording, providing opportunities for diverse audiences to gain knowledge and skills. However, these events are far from a silver bullet to the challenges of engaging people with nature. Engaging hard-to-reach groups remains a challenge to be addressed and there is a question of legacy: how can we extend and amplify the positive outcomes which BioBlitz delivers, ensure the biological data is utilised to its best value, reconnect people with nature in their local community, and recruit naturalists for the future?

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BioBlitz participants study fungus up close.

Photo: BNHC

