



## Community-led study engages public in science and environment

**A review of the community-led research programme** Open Air Laboratories (OPAL) – a UK national programme that brings scientists and communities together to investigate environmental issues – concludes that it benefits both science and the public. The public's involvement not only raises their awareness of their relationship with the environment, but also contributes to securing a sustainable future.

**OPAL is a five-year programme** that brings community groups, the voluntary sector, local authorities and scientists together to study three environmental subjects: loss of biodiversity, environmental degradation, and climate change. It takes scientists into the community, with a focus on deprived, urban communities, to conduct ecological surveys and other research projects with local residents. Participants are taught skills in biological monitoring to record the world around them, for example, recording pollution levels in ponds or the number of earthworms in soil. Their results are submitted to a website, which instantly maps the data.

OPAL consists of 31 projects that together form a fully integrated and cohesive programme of environmental research and education. In this analysis, the researchers focussed on OPAL projects that dealt with pollution. In addition, they provided insights into the important role of biological monitoring in initiating public interest nationally.

The results revealed that through regional and national projects, people of all ages, backgrounds and abilities are actively involved. At the time of writing, OPAL has been fully operational for just over a year and so far over 200,000 people have participated, including over 1000 schools and 1000 voluntary groups. To date, over 7000 sites have been surveyed and the data have been submitted to the OPAL website. However, it was also found that a large amount of data has not yet been submitted for various reasons.

One of the most common reasons for not submitting the data was found to be a lack of confidence concerning the data quality. Efforts have been made to overcome these challenges, as scientists recognise the benefits to both science and society through the programme. Thus, scientists have made significant changes to their approaches in developing the surveys in order to improve data quality and reduce uncertainty.

Contrary to findings from some other studies, the authors suggest that OPAL provides evidence that the general public is sufficiently interested in the natural environment to respond to the environmental challenges. Participation and media interest in the project has continuously risen and the researchers hope to reach 500,000 participants by 2012. OPAL appears to have many benefits, including an extensive and growing database on biodiversity and habitat condition, much from previously unsampled sites, particularly in urban areas, a positive contribution to sustainable development, and a more educated and engaged public.

In general, monitoring the state of the environment using plants, animals and fungi has proved to be very popular with the participants. Awareness of the relationship between pollution and harm to the natural environment has been raised through these simple activities. Although the scientists are only just beginning to analyse the data and explore public motivation, they believe that the public want to actively contribute data from their neighbourhood and just need the means to do so. Governments alone cannot secure a more sustainable future, thus allowing public participation in preserving and improving the environment should receive greater attention.

**Source:** Davies, L., Bell, J.N.B., Bone, J. *et al.* (2011) Open Air Laboratories (OPAL): A community-driven research programme. *Environmental Pollution*. 159 (8-9):2203-2210.

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