The British Ecological Society

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Since 1913, the British Ecological Society (BES) has been fostering the development of ecology and ecologists, with the vision of creating a world inspired, informed and influenced by ecology. With over 5000 members across the globe, the Society's mission is to generate, communicate and promote ecological knowledge and solutions. This is achieved through bringing ecologists together to share and develop insights, facilitating communication between ecologists and the public, providing evidence for policy makers and supporting ecologists throughout their career. In this exclusive interview, we have had the pleasure of speaking with Dr Hazel Norman, Executive Director of the BES, who tells us about how the Society facilitates collaboration, communicates world-leading ecological science, promotes diversity, and much more. 'As Brexit unfolds, we mustn't forget that ecological issues – from climate change to invasive species – do not respect borders. These global challenges cannot be solved without international collaboration.'



Since the founding of the British Ecological Society, just over a century ago, the Earth has witnessed a devastating decline in biodiversity, caused by human activity. Over this time, how has the Society evolved and changed its objectives in response?

Ecology is the scientific study of the distribution and abundance or organisms, the interaction among organisms and their environment, and the structure and function of ecosystems. Ecology provides knowledge and evidence on the interdependence between the biosphere and people. A better understanding of ecological systems enables society to predict the consequences of human activity on the environment and the importance of the environment for human welfare.

In the early days of the British Ecological Society, activities were very much focused on the academic community and publishing research. Ecology was establishing itself as a discipline and the Society supported the academic community in developing and refining the field. As ecology matured, the science provided evidence and understanding of the impact of human activity on natural systems. The Society continued its vital work in supporting the discipline and ecologists, but expanded it work outside the subject, principally to policy makers, young people and the wider public, to help them understand how important ecology is and what is happening to the natural systems that we all depend on for our health and wellbeing. All of our work is based on evidence and we are not a campaigning organisation. Our policy, education and public engagement work are now very important elements of our strategic objectives and we commit significant resources to support them each year. As well as directly delivering projects and programmes in these areas, we provide training opportunities and support to develop the capacity of ecologists to engage in policy, education and public engagement.

Another thread that has evolved over the years is increased work across different disciplines. Global problems are usually multifaceted and require input from many areas to solve. In addition, scientists are increasingly being asked to work in multidisciplinary teams. In response to this, we have expanded the coverage of its journals, increased the subject range of its Special Interest Groups and increased the variety of topics discussed at our meetings.

Describe some of the ways that the Society works to catalyse innovation in ecological science, and how it facilitates collaboration between different groups.

The British Ecological Society is great at facilitating networking opportunities to discuss and brainstorm, and we do that in a myriad of ways. Our grassroots level organisation of Special Interest Groups means that ecologists with shared interests can communicate, collaborate and support each other in ways which directly meet the needs of those communities. Our meetings portfolio includes a huge range of different events from small groups visiting ecological sites that present particular ecological challenges to conferences like our Annual



Meeting with 1,200 delegates discussing the latest advances in ecological understanding. We actively use social media to stimulate conversations and expand our reach; we have 15k followers on Twitter and 6k global followers on Facebook.

We have a grants programme to fund research and help ecologists share their ideas through our training and travel scheme. Last year, we gave grants to 49 research projects and enabled 63 early career ecologists to present their research at meetings across the world or take part in specialist field training.

Our Journal of Applied Ecology publishes high-impact papers on the interface between ecological science and the management of biological resources. The journal brings together applied researchers and practitioners within ecology as authors and readers, and highlights the management implications of all its articles. However, it remains challenging to ensure that the ecological research we publish is accessible to those ecologists working outside of academia. To this end, we have conducted focus groups, a survey and interviews over the past 12 months to identify the main barriers for this audience. We are also attempting to address some of these with lay summaries and blog posts describing the journal content, offering more opportunities

for practitioners to produce short papers communicating their research needs or highlighting their own work, and have an open call for Associate Editors specifically focusing on appointing non-academics to the Board.

Another way in which we facilitate collaboration is through our headquarters office in London, Charles Darwin House, which is an innovative partnership between 5 bioscience organisations interested creating space for those from different disciplines to share ideas and networks. The British Ecological Society was a founding member of Charles Darwin House which now includes the Biochemical Society, the Society for Experimental Biology, the Royal Society of Biology and the Microbiology Society along with other bioscience organisations that share the space with us.

Tell us a bit about the Society's work in communicating world-leading ecological science, both within the ecology community and to the public. What are the ways in which you achieve this?

We believe that communication is a two-way process and that our role is to facilitate this. We fund, train and facilitate our members not to communicate to, but with public groups. Our public facing activities are intended to inspire the public to engage with research and researchers; the real value for researchers comes from the opportunities to share their science and to hear the questions public groups are interested in.

The British Ecological Society publishes five world-renowned ecology journals and partner with our publisher Wiley on a sixth fully open access journal. As well as publishing over 1,000 academic articles through these journals each year, we help authors promote their work in a number of innovative ways to a wider audience: through social media, lay summaries, blog posts, videos and podcasts. Our Press Officer selects those articles that they believe will have the widest general appeal and promotes these via press releases to media outlets all over the world, including the BBC, CNN, ABC News, The Times, New Scientist and countless others. Authors of press released papers are also encouraged to do interviews with journalists and have featured on national radio and TV channels to promote their research.

Through what means does the Society help school children foster an interest in ecology, and how do you guide undergraduate students towards a rewarding career in ecological science.

Biology is a broad subject area, within which ecology is one aspect. At primary and lower secondary level, we collaborate with other bioscience organisations to recommend the curricula content children need to learn at each of their education stages. A common thread for all bioscience societies is to highlight the importance of practical science and within this, the British Ecological Society is a strong voice seeking to ensure that children are able to access field based practical experience. As students move through the education stages we begin to focus more strongly on ecological interventions, developing resources and working with awarding bodies to ensure ecology is represented within qualifications.

We work with A-level students, specifically from black and other minority ethnicities, lower socio-economic and those who are first in their family to consider higher education, to encourage them to take up further study in ecology. We do this through career advice and by including a group of these students on the annual BES Summer School.

The Summer School is in its 3rd year

and provides an opportunity for 50 Undergraduates to come together and spend a week focussing entirely on ecological content, future careers and building a network of likeminded individuals. The School's real strength lies in the mix of Pre-University, Undergraduate and PhD student mentors. Not everyone who applies can attend the Summer School, but those who do attend form the organising committees of our careers conferences and local representatives and in so doing are able to share their experiences.

Once on the path to a career in ecology, what support is available for early career ecologists?

Early Career is a difficult term to pin down. The Society really uses the term to define anyone who's still seeking a permanent post. Open to all early career ecologists, we offer a wide range of training and support. We encourage early carer representatives across all our committees and working groups, they interact with each other through an early career working group which acts as the expert panel advising on the training and support we offer. We have a place on our Board of Trustees specifically reserved for an early career ecologist to ensure their voice gets heard at the highest levels within the organisation.

Much of the technical and discipline specific training is accessed through our Special Interest Groups, each has a student and early career representative ensuring that their needs help shape activities. Nonresearch specific training is offered centrally from the Society in science communication through hands on projects with schools and the public. We also run various mentoring schemes; including specific schemes for women in ecology and new associate editors. Grant writing courses are delivered each year for those seeking post-doctoral fellowships and research grants. We produce a range of guides and run workshops on various key skills for researchers, including how to get published, how to peer review and data management.

We also offer training and travel grants, and other early career grants that support our members to attend and engage in opportunities outside the British Ecological Society. The Journals each award an annual prize for the best paper published by an early career researcher. This prize entitles the author to present their research at the Annual 'Our public facing activities are intended to inspire the public to engage with research and researchers; the real value for researchers comes from the opportunities to share their science and to hear the questions public groups are interested in.'



Meeting as well as covering their registration costs and a cash award.

How does the British Ecological Society work to promote a culture of diversity, equality and inclusion?

In our latest strategic plan, we identified a need to ensure that we were an open and inclusive organisation and discipline. So, in 2016, we established an Equality and Diversity Working Group to help us ensure that a career in ecology is accessible and welcoming to anyone, irrespective of their background. During the year, we developed our equality and diversity policy for the organisation, which is published on our website, and developed a set of equality and

diversity guidelines for all our Committees, working groups and SIGs. These guidelines cover issues such ensuring opportunities are open to all, and that speakers at BES events should represent the full diversity of the ecological community. We launched a new prize - the BES Equality and Diversity Champion, to recognise an individual or group who have campaigned to highlight the importance of equality and diversity and worked to make a difference or served as an inspiration to others. We also use our Annual Meeting as a platform for an inclusive community, for example by providing space and publicising LGBT+ group and Christian group meetings, providing a prayer room and providing a family room. We have started systematically collecting equality and





diversity data on our members and those who use our services so we can make sure we really are accessible to all equally. To demonstrate our long-term commitment to improving equality and diversity in the ecological community we have pledged to report annually on our progress and you can find our first report at:

Tell us about the Society's work in supporting ecologists in Africa. Describe one or two projects that the Society is currently involved with.

We have been targeting support for ecologist in Africa for several decades, partly in partnership with others.

One of our research funding streams, 'Ecologists in Africa', provides support of up to £8,000 per grant for ecologists in Africa to carry out innovative ecological research with an optional additional £2,000 to fund travel to help them develop connections with other ecologists outside their usual peer group. We recognise that ecologists in Africa face unique challenges in carrying out research and our grant is designed to support African ecologists develop their skills, experience and knowledge base as well as making connections with ecologists in the developed world. We made 7 awards in 2016.

Another way in which we support ecologists in Africa is in partnership with the Tropical Biology Association (TBA). We provide a grant of

£10,000 per annum to help the TBA deliver its innovative field course programme. The TBA runs month-long courses in tropical ecology and conservation for students at advanced undergraduate or early postgraduate level who have a keen interest, but little experience, in tropical biology. The courses provide practical training and experience in the tropics with an emphasis on building skills and understanding. They provide a valuable foundation on which to build a career in conservation, research and sustainable natural resource management. On every course, participants represent at least 15 countries, from the host region and beyond, ensuring a rich cultural experience, and laying foundations for a lasting conservation community that spans the globe. They are truly transformative experiences for the participants and the BES funding helps to offset the costs.

Finally, does British Ecological Society influence policy decisions, and how? How do you believe Brexit will affect the Society's work, and what challenges could it present for science and the environment over the next 10 years?

Our approach to influencing policy has members at its core. We run a variety of initiatives to enable members to develop their policy engagement skills and experience, ranging from training workshops to placements in Parliament. Then we draw on the collective expertise of our membership to bring together the best ecological evidence on wide range of policy and communicate that to decision-makers. Much of this work is done in partnership with other scientific and environmental organisations.

Brexit is already having a substantial impact on our work and that of our members. However, it is really important for us that Brexit doesn't mean restricting our horizons. We are an inclusive, international society, and we remain committed to fostering cross-border collaborations and representing all our members, wherever they may live.

Brexit will bring about major changes to our environmental policy framework, and has put UK science and scientists in a position of real uncertainty. There are major risks ahead, but also opportunities, and the ecological community must engage proactively to be heard. Since the referendum, we have been incredibly busy: meeting with Ministers, giving evidence to Parliament, and holding a number of high profile events to highlight our concerns.

Looking ahead, maintaining the UK's position as a world leader in science is essential, which means an immigration system that maintains our ability to attract the best staff and students from a global talent pool, and securing the best possible access to European collaborative networks and funding. It is vital that environmental standards are maintained, or better, improved, and that any legislative changes as a consequence of Brexit are informed by the best ecological evidence.

As Brexit unfolds, we mustn't forget that ecological issues – from climate change to invasive species – do not respect borders. These global challenges cannot be solved without international collaboration.



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